



**RUGGEDIZED RJ45 AND USB**

# **SUPERSEAL™**

**CONNECTORS AND ACCESSORIES**

**IAW: MIL-DTL-38999 • MIL-DTL-5015 • MIL-DTL-26482 • MIL-DTL-28840 • SR. 80 MIGHTY MOUSE**

**MAY 2016**

RUGGEDIZED  
RJ45 AND USB  
CONNECTORS

# SUPERSEAL™

## CONNECTORS AND ACCESSORIES



Glenair supplies the world's most comprehensive line of ruggedized, field RJ45 Ethernet and USB connectors. The entire series is optimized for high-speed RJ45 and USB protocol applications in industrial and military environments such as rail, naval, shipboard, and soldier-system communications. SuperSeal™ enables commercial standard RJ45 and USB connectors to perform their important connectivity functions in mil-spec application environments requiring higher levels of sealing, grounding, durability, and higher-performance cable and board termination options.



### *SuperSeal™ Advantages*

- Superior sealing— IP67 unmated and IP68 when mated—for complete system protection against water, sand and dust
- Shielded/grounded receptacle connectors
- Crimp, solder-cup, PC tail, and Quadrax contact/wire termination options
- USB 2.0 standard Type A, RJ45 Cat 5e and RJ12 with plug/jack or jack/jack interface options
- The industry's widest range of packaging options including Mil-DTL Type and Glenair ultraminiature solutions

38999 Type



5015 Intermountable



26482 Type



28840 Type



Series 80 Mighty Mouse



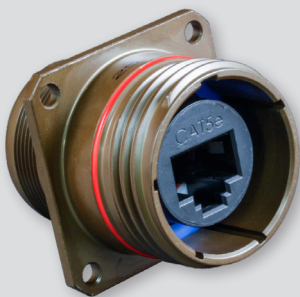


## SUPERSEAL™

Ruggedized RJ45, USB, HDMI, and DisplayPort connectors for applications as diverse as military ground vehicles to passenger IFE

IP67 open-face, robust insert-to-shell grounding, complete range of wire, cable, and circuit board terminations

- Superior sealing—IP67 unmated—for complete system protection against water, sand and dust
- Protocols available include: USB 2.0, 3.0, and 3.2 Gen 2; Cat 5e and 6a; HDMI 2.0; and DisplayPort 2
- Shielded/grounded coupler designs in both receptacle and plug connectors
- Crimp, solder-cup, PC tail, and Quadrax contact/wire termination options
- RJ45 plug and/or jack interface options MIL-DTL-38999 type versions intermateable with other RJ45 field-duty connectors



MIL-DTL-38999 Series III with sealed RJ45



MIL-DTL-38999 Series III with RJ45 USB cable assemblies



High-capacity, high-speed USB data stick



RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT  
**Introduction and Technical Reference**  
 SuperSeal connector overview



**A**

**AVAILABLE TERMINATION OPTIONS**



**EXPANDED PACKAGING OPTIONS**



**ACCESSORIES AND TOOLS**





# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



## Performance specifications for Cat 5e and 6A connectors

A

RJ45 Cat 5e and Cat 6A Performance Specifications			
Property	MIL-DTL-38999 Series III Type	Series ITS 5015 Intermountable	Series IPT MIL-DTL-26482 Type
<b>Material and Finish</b>			
<b>Shell/Coupling and Plating</b>	Complete list of options available in the Material and Finish Options portion of this section		
<b>Contacts</b>	PC tails, solder cup, and crimp contacts: copper alloy, gold plated		
<b>RJ45 Insulator</b>	PPS		
<b>Grommet, Peripheral Seal, Interfacial Seal, O-ring</b>	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988		
<b>Shell Sizes</b>	17 and 19	18	18
<b>Shielding Sleeve</b>	Material: Copper alloy Finish: Nickel		
<b>Electrical Specifications</b>			
<b>Data Rate</b>	Cat 5e, up to one Gigabit per second (Gbps) at 100 MHz up to 100 meters / 328 feet. Cat 6A, up to 10 Gigabit per second (10 Gbps) at 500 MHz up to 100 meters / 328 feet.		
<b>Current Rating</b>	1.5 Amps		
<b>D.W.V.</b>	1000 VDC (700 VAC)		
<b>I.R.</b>	500 Mega ohms @ 500 VDC		
<b>Frequency</b>	100 MHz (Cat 5e), 500 MHz (Cat 6A)		
<b>Wiring</b>	Straight through		
<b>Cabling Length</b>	Up to 100 meters or 100 meters max.		
<b>Shield Continuity</b>	Continuous through coupler or continuous coupler to shell		
<b>Environmental/Mechanical Performance</b>			
<b>Sealing</b>	IP68 mated condition, IP67 unmated condition		
<b>Outgassing</b>	<b>Mod Code 1865</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0		
<b>Operating Temperature</b>	-40°C to +120°C		
<b>Vibration</b>	20g, 3 Axis, 10 - 2000Hz	15G sine 10Hz - 2000Hz	10G sine 10Hz - 2000Hz
<b>Mechanical Shock</b>	300 g's	50G - 11ms	50G - 11ms
<b>Backshell Interface</b>	MIL-DTL-38999, Designator H	Consult factory	
<b>Mating System</b>	Triple-start stub ACME	Reverse Bayonet	
<b>Mating Cycles</b>	500		



# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



## Performance specifications for Cat 5e and 6A connectors

A

RJ12 and RJ45 Cat 5e and Cat 6a Performance Specifications			
Property	MIL-DTL-28840 Type (RJ12)	MIL-DTL-28840 Type (RJ45)	Series 801, 804 and 805 Mighty Mouse (RJ45)
<b>Material and Finish</b>			
<b>Shell/Coupling and Plating</b>	Complete list of options available in the Material and Finish Options portion of this section		
<b>Contacts</b>	PC tails, solder cup, and crimp contacts: copper alloy, gold plated		
<b>RJ45 Insulator</b>	PPS		
<b>Grommet, Peripheral Seal, Interfacial Seal, O-ring</b>	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988		
<b>Shell Sizes</b>	15 and 17	17 and 19	Series 801 Shell Size 17 & 19 Series 804 Shell Size 15 & 16 Series 805 Shell Size 19 & 21
<b>Shielding Sleeve</b>	Material: Copper alloy Finish: Nickel		
<b>Electrical Specifications</b>			
<b>Data Rate</b>	NA	Cat 5e, up to one Gigabit per second (Gbps) at 100 MHz up to 100 meters / 328 feet. Cat 6A, up to 10 Gigabit per second (10 Gbps) at 500 MHz up to 100 meters / 328 feet.	
<b>Current Rating</b>	1.5 Amps		
<b>D.W.V.</b>	1000 VDC (700 VAC)		
<b>I.R.</b>	500 Mega ohms @ 500 VDC		
<b>Frequency</b>	300 Hz - 3.4 KHZ	100 MHz (Cat 5e), 500 MHz (Cat 6A)	
<b>Wiring</b>	Straight through		
<b>Cabling Length</b>	300 meters	Up to 100 meters or 100 meters max.	
<b>Shield Continuity</b>	Continuous through coupler or continuous coupler to shell		
<b>Environmental/Mechanical Performance</b>			
<b>Sealing</b>	IP68 mated condition, IP67 unmated condition		
<b>Outgassing</b>	<b>Mod Code 1865</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0		
<b>Operating Temperature</b>	-40°C to +120°C		
<b>Vibration</b>	NA	20g, 3 Axis, 10 - 2000Hz	
<b>Mechanical Shock</b>	NA	300g's	
<b>Backshell Interface</b>	Consult factory	Consult factory	Dependent on Series
<b>Mating System</b>	Threaded	Threaded	801 - Double-Start Stub ACME 804 - Push/Pull 805 - Triple Start
<b>Mating Cycles</b>	100	500	500



# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



## Performance specifications for USB 2.0, 3.0 and 3.2 Gen 2 connectors

A

USB 2.0/3.0/3.2 Gen 2 Performance Specifications			
Property	MIL-DTL-38999 Series III Type	Series ITS 5015 Intermountable	Series IPT MIL-DTL-26482 Type
<b>Material and Finish</b>			
<b>Shell/Coupling and Plating</b>	Complete list of options available in the Material and Finish Options portion of this section		
<b>Contacts</b>	PC tails, solder cup, and crimp contacts: copper alloy, gold plated		
<b>Grommet, Peripheral Seal, Interfacial Seal, O-ring</b>	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988		
<b>USB Insulator</b>	LCP	PPS	
<b>Shell Sizes</b>	15 and 17 Consult factory for other shell size options	16	16
<b>Electrical Specifications</b>			
<b>Power Usage</b>	Up to 7.5W		
<b>Current Rating</b>	1.5 Amps,		
<b>D.W.V.</b>	500 VAC (USB 2.0), 100 VAC (USB 3.0)		
<b>I.R.</b>	1000 MegOhms minimum (USB 2.0), 100 MegOhms minimum (USB 3.0)		
<b>Shielding</b>	Continuous through coupler or continuous coupler to shell	USB housing ground to shell full shielding	
<b>Environmental/Mechanical Performance</b>			
<b>Sealing</b>	IP68 mated condition, IP67 unmated condition		
<b>Outgassing</b>	<b>Mod Code 186S</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0		
<b>Operating Temperature</b>	40°C to 120°C (USB 2.0), -40°C to +85°C (USB 3.0)		
<b>Vibration</b>	20g's, 3 Axis, 10 - 2000Hz	10G sine 10Hz - 2000Hz	10G sine 10Hz - 2000Hz
<b>Mechanical Shock</b>	300 g's	50G - 11ms	50G - 11ms
<b>Backshell Interface</b>	MIL-DTL-38999 Designator H	Consult Factory	Designator A
<b>Mating System</b>	Triple-start stub ACME	Reverse Bayonet	3-Pin Bayonet
<b>Mating Cycles</b>	500		
<b>USB Protocol Specific Performance (regardless of connector)</b>			
Property	USB 2.0	USB 3.0	USB 3.2 Gen 2
<b>Data Rate</b>	480 Mbps	5 Gbps	10 Gbps
<b>Cabling Length</b>	5.0 meters max.	3.0 meters max.	3.0 meters max.
<b>Connector Compatibility</b>	Type A	Type A	Type C





# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



## Performance specifications for USB 2.0, 3.0 and 3.2 Gen 2 connectors

A

USB 2.0/3.0/3.2 Gen 2 Performance Specifications		
Property	MIL-DTL-28840 Type	Series 801, 804 and 805 Mighty Mouse
<b>Material and Finish</b>		
<b>Shell/Coupling and Plating</b>	Complete list of options available in the Material and Finish Options portion of this section	
<b>Contacts</b>	PC tails, solder cup, and crimp contacts: copper alloy	
<b>Grommet, Peripheral Seal, Interfacial Seal, O-ring</b>	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988	
<b>USB Insulator</b>	PPS	LCP
<b>Shell Sizes</b>	15	<b>Micro USB:</b> Series 801 & 804 Shell Size 8 Series 805 shell Size 10 <b>Standard USB:</b> Series 801 Shell Size 16, Series 804 Shell Size 14, Series 805 Shell Size 18
<b>Electrical Specifications</b>		
<b>Power Usage</b>	Up to 7.5W	
<b>Current Rating</b>	1.5 Amps (USB 2.0 and 3.0)	
<b>D.W.V.</b>	500 VAC (USB 2.0), 100 VAC (USB 3.0)	500 VAC Standard USB 2.0 100 VAC Micro USB 2.0 Mighty Mouse 100 VAC Standard USB 3.0
<b>I.R.</b>	1000 MegOhms minimum (USB 2.0), 100 MegOhms minimum (USB 3.0)	
<b>Shielding</b>	Continuous through coupler or continuous coupler to shell	
<b>Environmental/Mechanical Performance</b>		
<b>Sealing</b>	IP68 mated condition, IP67 unmated condition	
<b>Outgassing</b>	<b>Mod Code 186S</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0	
<b>Operating Temperature</b>	-40°C to 85°C (USB 3.0) -40°C to 120°C (USB 2.0)	-40° to +120°C (Standard) -20°C to +85°C (Micro)
<b>Vibration</b>	20g's, 3 Axis, 10 - 2000Hz	20g, 3 axis, 10-2000 Hz (Standard) 37.8g, 3 axis, 50-2000 Hz (Micro)
<b>Mechanical Shock</b>	300 g's	300g (Standard and Micro)
<b>Backshell Interface</b>	M28840, Connector Designator G	Consult Factory
<b>Mating System</b>	Threaded	801 - Double-Start Stub ACME 804 - Push/Pull 805 - Triple Start
<b>Mating Cycles</b>	100	2,000 (801 and 804) 500 (805)

### USB Protocol Specific Performance (regardless of connector)

Property	USB 2.0	USB 3.0	USB 3.2 Gen 2
<b>Data Rate</b>	480 MBps	5 Gbps	10 Gbps
<b>Cabling Length</b>	5.0 meters max.	3.0 meters max.	3.0 meters max.
<b>Connector Compatibility</b>	Type A	Type A	Type C



# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



## HDMI performance specifications for MIL-DTL-D38999

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HDMI 2.0 Performance Specifications	
Property	MIL-DTL-38999 Series III Type
<b>Material and Finish</b>	
<b>Shell/Coupling and Plating</b>	Complete list of options available in the Material and Finish Options portion of this section
<b>Contacts</b>	Copper alloy/gold plate
<b>HDMI Insulator</b>	LCP
<b>Grommet, Peripheral Seal, Interfacial Seal, O-ring</b>	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988
<b>Shell Size</b>	17 Consult factory for other shell size options
<b>Electrical Specifications</b>	
<b>Data Rate</b>	Up to 18 Gbps
<b>Power Usage</b>	+5.0 volts
<b>Current Rating</b>	0.3 Amps min.
<b>D.W.V.</b>	300 VAC
<b>I.R.</b>	100 Mega Ohms min
<b>Cabling Length</b>	10 Meters maximum (recommended)
<b>Shielding</b>	Continuous through coupler or continuous coupler to shell
<b>Environmental/Mechanical Performance</b>	
<b>Sealing</b>	IP67 unmated, IP68 mated
<b>Outgassing</b>	<b>Mod Code 186S</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0
<b>Operating Temperature</b>	-20°C to +85°C
<b>Backshell Interface</b>	MIL-DTL-38999 Designator H
<b>Mating System</b>	Triple-start stub ACME
<b>Mating Cycles</b>	500



# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



## DisplayPort performance specifications for MIL-DTL-D38999

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DisplayPort 1.4 Performance Specifications	
Property	MIL-DTL-38999 Series III Type
<b>Material and Finish</b>	
<b>Shell/Coupling and Plating</b>	Complete list of options available in the Material and Finish Options portion of this section
<b>Contacts</b>	Copper alloy/gold plate
<b>DisplayPort Insulator</b>	LCP
<b>Grommet, Peripheral Seal, Interfacial Seal, O-ring</b>	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988
<b>Shell Size</b>	17 Consult factory for other shell size options
<b>Electrical Specifications</b>	
<b>Data Rate</b>	25.92 Gbps maximum
<b>Power Usage</b>	+5.0 volts
<b>Current Rating</b>	5 Amps
<b>D.W.V.</b>	300 VAC (mated); 500 VAC (unmated)
<b>I.R.</b>	100 Mega Ohms min
<b>Cabling Length</b>	10 Meters max. (recommended)
<b>Shielding</b>	Continuous through coupler or continuous coupler to shell
<b>Environmental/Mechanical Performance</b>	
<b>Sealing</b>	IP67 unmated, IP68 mated
<b>Outgassing</b>	<b>Mod Code 186S</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0
<b>Operating Temperature</b>	-20°C to +85°C
<b>Backshell Interface</b>	MIL-DTL-38999 Designator H
<b>Mating System</b>	Triple-start stub ACME
<b>Mating Cycles</b>	500



# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference

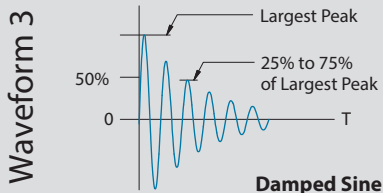


## RJ45 Cat 5e and 6A TVS diode filter connector performance specifications

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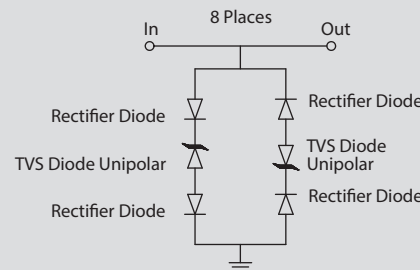
MIL-DTL-38999 Series III, TVS Diode, RJ45 Cat 5e and 6A Performance Specifications	
Material and Finish	
<b>Shell/coupling Plating</b>	Complete list of options available in the Material and Finish Options portion of this section
<b>Contacts</b>	PC tails or solder cup: copper alloy, gold plated
<b>RJ45 coupler housing</b>	UL94V-0 compliant ABS or PPS
<b>Seals</b>	Fluorosilicone
<b>Shell Sizes</b>	17 and 19
Environmental / Mechanical Performance	
<b>Sealing</b>	IP68 mated condition, IP67 unmated condition
<b>Outgassing</b>	Mod Code 186S* Mod Code 928**
<b>Operating Temperature</b>	-20°C to +85° C LT -40 to +125° C HT
<b>Vibration</b>	20g's, 3 Axis, 10 - 2000Hz
<b>Mechanical Shock</b>	300 g's
<b>Backshell Interface</b>	MIL-DTL-38999 Designator H
<b>Mating Cycles</b>	500

\* Meets outgassing requirements per ASTM E 595 and meets NASA screening requirements for level 1 highest reliability  
\*\* Meets outgassing requirements per UL 94 V-0

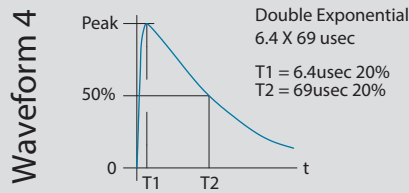


MIL-DTL-38999 Series III, TVS Diode, RJ45 Cat 5e and 6A Performance Specifications	
RJ45 Cat 6A & 5e Electrical Specifications	
<b>Voltage Rating</b>	1000 Volts, Cat 5e
<b>Data Rate</b>	10BASE-T, 100BASE-TX, 1000BASE-T/1000BASE-TX
<b>Current Rating</b>	1.5 Amps
<b>D.W.V.</b>	1000 VDC (700 VAC)
<b>Frequency</b>	100 MHz, Cat 5e 500 MHz, Cat 6A
<b>Wiring</b>	Straight through
<b>Cabling Length</b>	100 Meters Max
<b>Shield Continuity</b>	Continuous Through Coupler and Grounded to the Shell

**FIGURE 1**



RTCA DO-160 Indirect Lightning Wavaset A Waveforms		
RTCA DO-160 Waveform	Level	Open Circuit Voltage/ Short Circuit Voltage V/A
Waveform 3	1	100/4
	2	250/10
Waveform 4	1	50/10
	2	125/25



MIL-DTL-38999 Series III, TVS Diode, RJ45 Cat 5e and 6A Performance Specifications	
TVS Electrical Specifications	
Each signal line has TVS diode protection per the electrical schematic in figure 1.	
<b>Peak pulse power (tp = 8/20us)</b>	1,200w
<b>Rated standoff voltage</b>	2.8V
<b>Minimum breakdown voltage</b>	3.0V @ 1mA
<b>Max clamping voltage (@ Ipp = 2A)</b>	5.5V
<b>Max clamping voltage (@ Ipp = 5A)</b>	8.5V
<b>Max clamping voltage (@ Ipp = 30A)</b>	21.0V
<b>Max leakage current</b>	2.0uA max @ 2.8V
<b>Typical junction capacitance</b>	10pF @ 0v, 1Mhz
<b>Polarity</b>	bipolar
<b>Compatible with IEC 61000-4-2 (ESD)</b>	air - 15kv, contact - 8kv
<b>Compatible with IEC 61000-4-4 (EFT)</b>	40A - 5/50ns
<b>Compatible with IEC 61000-4-5 (surge)</b>	24A, 8/20us - level 2 (line-gnd) & level 3 (line-line)

Meets indirect lightning strike requirements per D0-160, section 22 pin injection waveform set A2.



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**MIL-DTL-38999 Connector and Cable Assembly Material and Finish Codes**

Code	Material	Finish	Finish Specification	Hrs. Salt Spray	Electrical Conductivity	Operating Temp. Range	RoHS Compliance
ME	Aluminum	Electroless Nickel	MIL-DTL-24308 Class K	96	Yes		Yes
MT	Aluminum	Nickel PTFE	SAE AMS2454	500	Yes	-65° to +175°C	Yes
NF	Aluminum	Cadmium, Olive Drab	SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel	500	Yes	-65° to +175°C	No
ZR	Aluminum	Zinc-Nickel, Black	ASTM B841 Grade 5 over electroless nickel	500	Yes	-65° to +175°C	Yes
AB	Marine Bronze	None		1000	Yes	-65° to +200°C	Yes
XM	Composite	Electroless Nickel	AMS-C-26074	2000	Yes	-65° to +175°C	Yes
Z1	Stainless Steel	Passivate	SAE-AMS-SAE-AMS-QQ-P-35 Type VI	1000	Yes	-65° to +200°C	Yes

**Glenair Series ITS (5015 Intermountable) Material and Finish Codes**

Code	Material	Finish	Hrs. Salt Spray	Electrical Conductivity	Operating Temp. Range	RoHS Compliance
F6	Aluminum	Black Epoxy Paint	500	No	-55° to +125°C	Yes
F7	Aluminum	Black Zinc Nickel	500	Yes	-55° to +125°C	Yes
F11	Aluminum	Electroless Nickel	48	Yes	-55° to +125°C	Yes
G3	Aluminum	Cadmium, Olive Drab	500	Yes	-55° to +125°C	No

**Glenair Series IPT (IAW MIL-DTL-26482) Material and Finish Codes**

Code	Material	Finish	Hrs. Salt Spray	Electrical Conductivity	Operating Temp. Range	RoHS Compliance
F6	Aluminum	Black Epoxy Paint	500	No	-55° to +125°C	Yes
F7	Aluminum	Black Zinc Nickel	500	Yes	-55° to +125°C	Yes
F11	Aluminum	Electroless Nickel	48	Yes	-55° to +125°C	Yes
G3	Aluminum	Cadmium, Olive Drab	500	Yes	-55° to +125°C	No

**MIL-DTL-28840 Material and Finish Options**

Code	Material	Finish	Finish Specification	Hrs. Salt Spray	Electrical Conductivity	Operating Temp. Range	RoHS Compliance
NF	Aluminum	Cadmium, Olive Drab	SAE-AMS-QQ-P-416	500	Yes	-65 to +175°C	No
ZR	Aluminum	Zinc-Nickel, Black	ASTM B841	500	Yes	-65 to +175°C	Yes
MT	Aluminum	Nickel-PTFE, 1000 Hour Grey™	AMS2454	1000	Yes	-65 to +175°C	Yes
Z1	Stainless Steel	Passivate	SAE-AMS-QQ-P-35	1000	Yes	-65 to +200°C	Yes

**Series 80 Mighty Mouse Material and Finish Codes**

Code	Material	Finish	Finish Specification	Hrs. Salt Spray	Electrical Conductivity	Operating Temp. Range	RoHS Compliance
M	Aluminum	Electroless Nickel	AMS-C-26074	48	Yes	-65 to +200°C	Yes
MT	Aluminum	Nickel-PTFE	SAE AMS2454	500	Yes	-65 to +175°C	Yes
NF	Aluminum	Cadmium, Olive Drab	SAE-AMS-QQ-P-416	500	Yes	-65 to +175°C	No
ZNU	Aluminum	Zinc-Nickel, Black	ASTM B841	500	Yes	-65 to +175°C	No
Z1	Stainless Steel	Passivate	SAE-AMS-QQ-P-35	1000	Yes	-65 to +200°C	Yes

**Consult Factory for Additional Material and Finish Options**



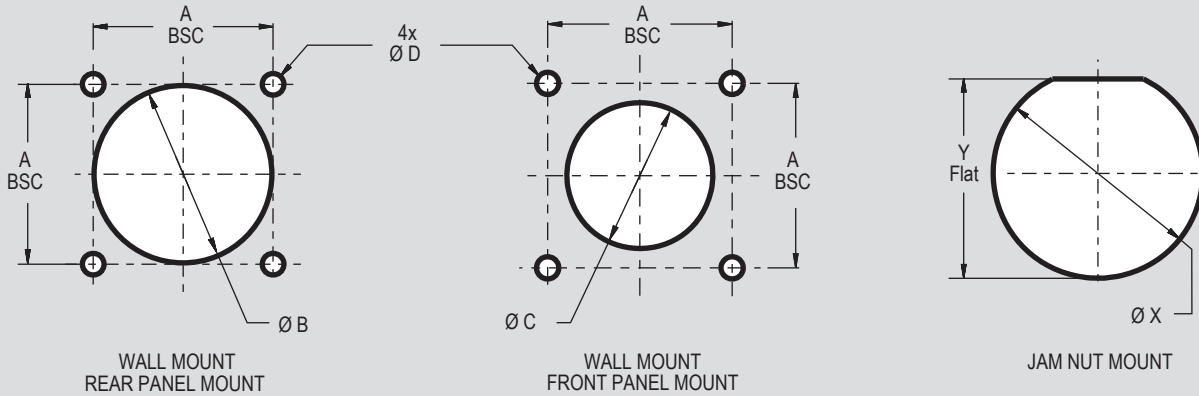
# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



## Recommended panel cutouts for MIL-DTL-38999 Series III type connectors

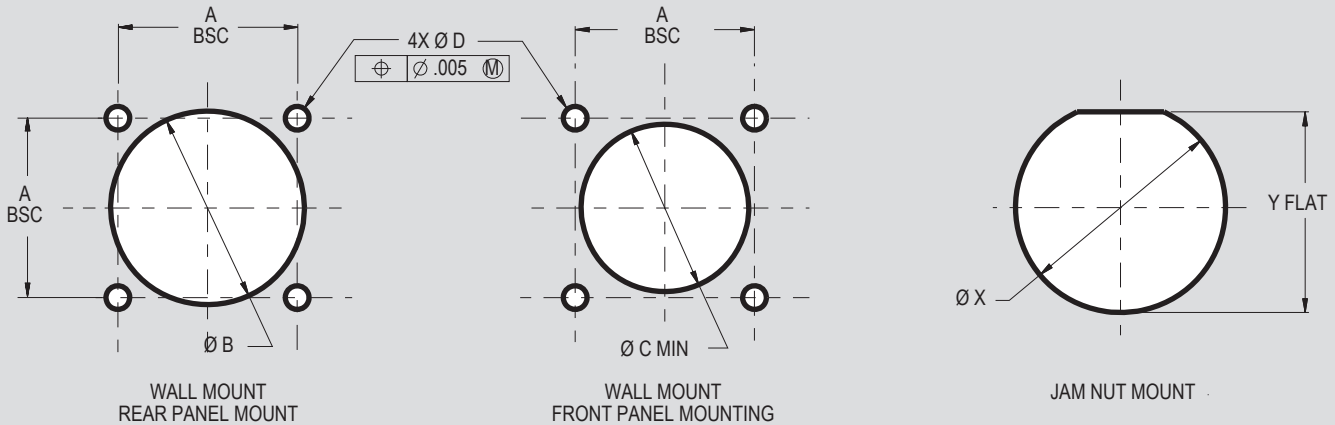
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### MIL-DTL-38999 TYPE RJ45 PANEL CUTOUTS FOR SHELL SIZE 17 AND 19



Panel Cut-Out Dimensions						
Shell Size	A Bsc	B Dia Min	C Dia Min	D Holes	X Dia	Y Flat
17	1.062 (26.97)	1.219 (30.96)	1.016 (25.81)	.133 (3.38)	1.270 (32.26)	1.210 (30.73)
					1.260 (32.00)	1.200 (30.48)
19	1.156 (29.36)	1.297 (32.94)	1.141 (28.98)	.123 (3.12)	1.395 (35.43)	1.335 (33.91)
					1.385 (35.18)	1.325 (33.66)

### MIL-DTL-38999 TYPE USB AND HDMI PANEL CUTOUTS FOR SHELL SIZE 15 (USB ONLY) AND 17



Panel Cut-Out Dimensions						
Shell Size	A BSC	B Dia Min	C Dia Min	D Holes	X Dia	Y Flat
15	.969 (24.61)	1.047 (26.59)	.906 (23.01)	.133 (3.38)	1.145 (29.08)	1.085 (27.56)
					1.135 (28.83)	1.075 (27.31)
17	1.062 (26.97)	1.219 (30.96)	1.016 (25.81)*	.123 (3.12)	1.270 (32.26)	1.210 (30.73)
					1.260 (32.00)	1.200 (30.48)

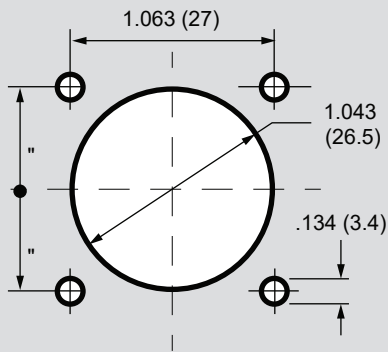
\* Available for HDMI connectors only. Front panel mounting is not available for SuperSeal 38999 Type USB connectors.



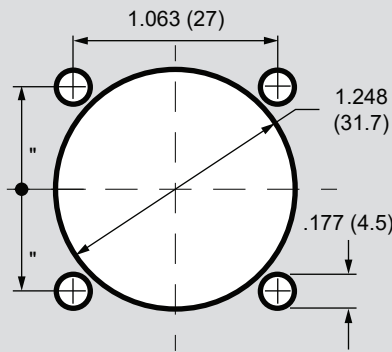
Recommended panel cutouts for  
Glenair Series ITS (5015 intermountable) connectors

A

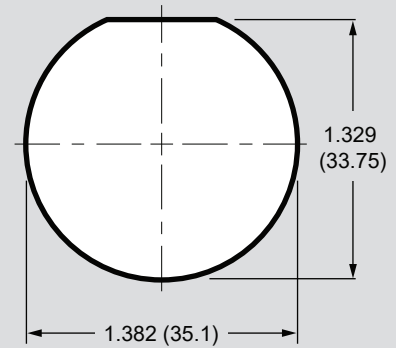
**GLENAIR SERIES ITS (MIL-DTL-5015) RJ45 PANEL CUTOUTS FOR SHELL SIZE 18**



SQUARE FLANGE  
FRONT PANEL MOUNTING

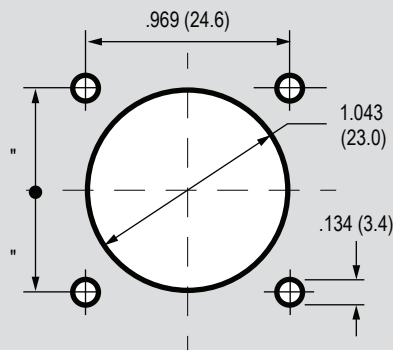


SQUARE FLANGE  
REAR PANEL MOUNTING

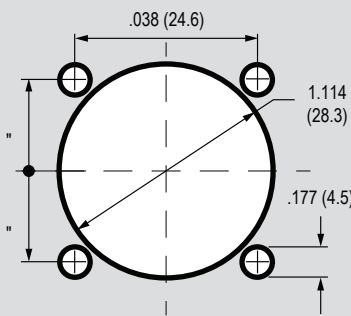


JAM NUT MOUNT

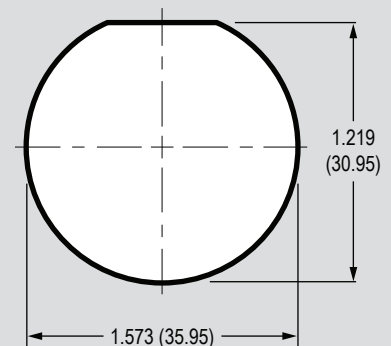
**GLENAIR SERIES ITS (MIL-DTL-5015) USB PANEL CUTOUTS FOR SHELL SIZE 16**



SQUARE FLANGE  
FRONT PANEL MOUNT



SQUARE FLANGE  
REAR PANEL MOUNT



JAM NUT MOUNT



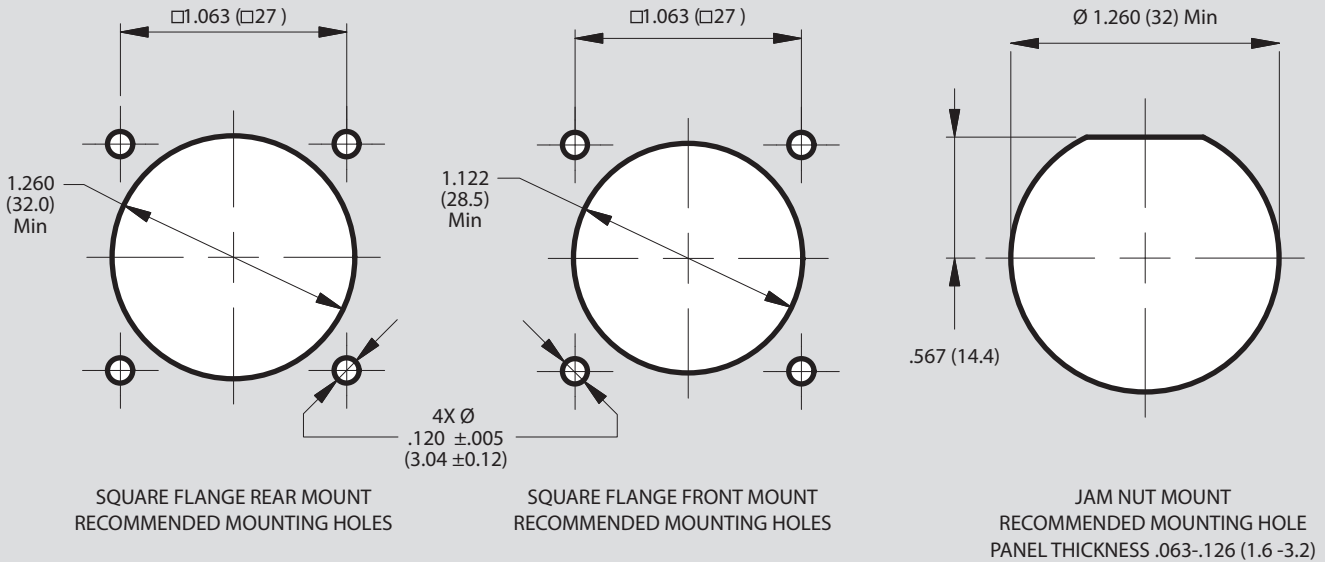
# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



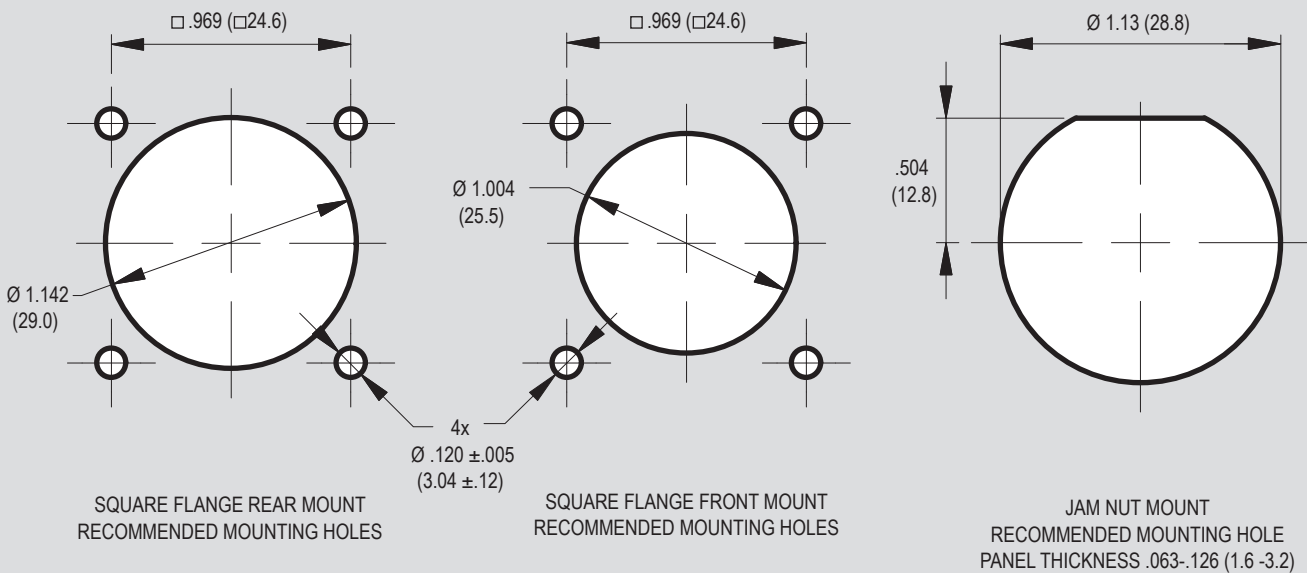
## Recommended panel cutouts for Glenair Series IPT (MIL-DTL-26482 type) connectors

A

### GLENAIR SERIES IPT (MIL-DTL-26482 TYPE) RJ45 PANEL CUTOUTS FOR SHELL SIZE 18



### GLENAIR SERIES IPT (MIL-DTL-26482 TYPE) USB PANEL CUTOUTS FOR SHELL SIZE 16







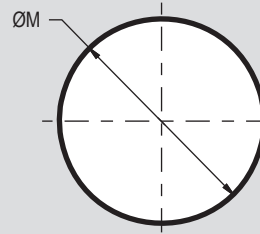
# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



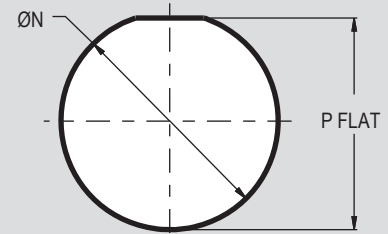
## Recommended panel cutouts for MIL-DTL-28840 type connectors

### MIL-DTL-28840 TYPE RJ12 PANEL CUTOUTS FOR SHELL SIZE 15 AND 17

Recommended Panel Cutouts			
Shell Size	ØM	ØN	P Flat
15	1.124 (28.55)	1.203 (30.56)	1.165 (29.59)
		1.193 (30.30)	1.155 (29.34)
17	1.187 (30.15)	1.265 (32.13)	1.228 (31.19)
		1.255 (31.88)	1.218 (30.94)



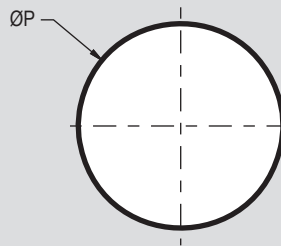
WALL MOUNT RECEPTACLE  
MAX PANEL THICKNESS  
.188 (4.78)



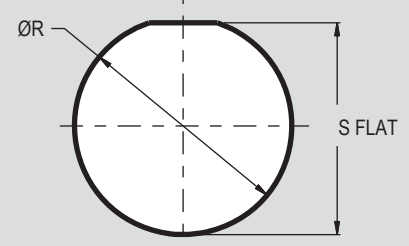
REAR PANEL MOUNT  
JAM NUT RECEPTACLE  
MAX PANEL THICKNESS  
.188 (4.78)

### MIL-DTL-28840 TYPE RJ45 PANEL CUTOUTS FOR SHELL SIZE 17 AND 19

Panel Cutouts			
Shell Size	ØP	ØR	S Flat
17	1.187 (30.15)	1.265 (32.13)	1.228 (31.19)
		1.255 (31.88)	1.218 (30.94)
19	1.374 (34.90)	1.453 (36.91)	1.415 (35.94)
		1.443 (36.65)	1.405 (35.69)

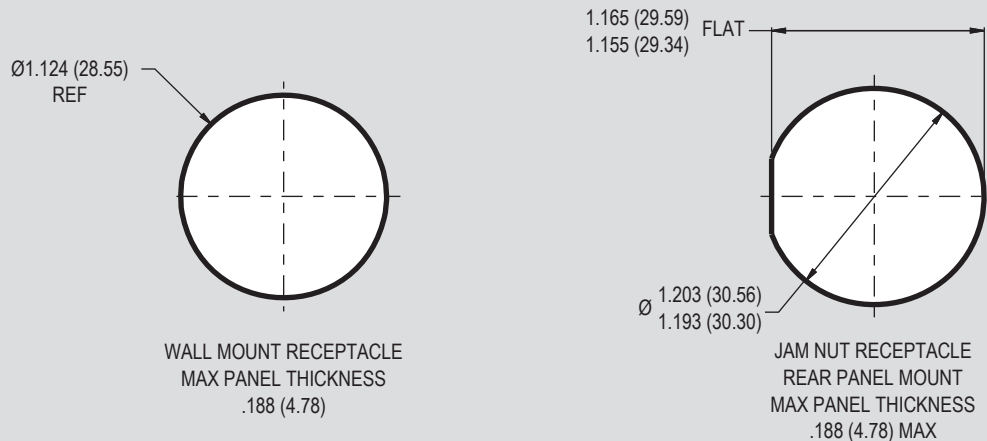


WALL MOUNT RECEPTACLE  
MAX PANEL THICKNESS  
.188 (4.78)



REAR PANEL MOUNT  
JAM NUT RECEPTACLE  
MAX PANEL THICKNESS  
.188 (4.78)

### MIL-DTL-28840 TYPE USB PANEL CUTOUTS FOR SHELL SIZE 15



WALL MOUNT RECEPTACLE  
MAX PANEL THICKNESS  
.188 (4.78)

JAM NUT RECEPTACLE  
REAR PANEL MOUNT  
MAX PANEL THICKNESS  
.188 (4.78) MAX



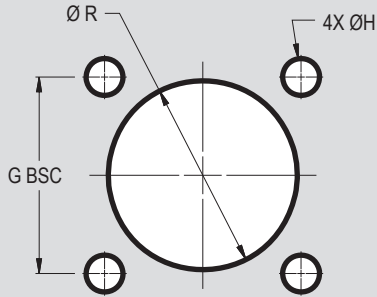
# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



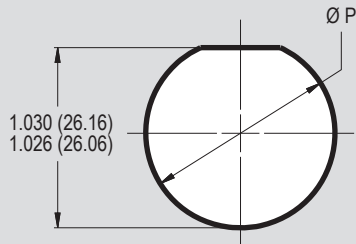
## Recommended panel cutouts for Mighty Mouse Series 801, 804 and 805 connectors

A

### SERIES 801 MIGHTY MOUSE RJ45 PANEL CUTOUTS FOR SHELL SIZE 17 AND 19



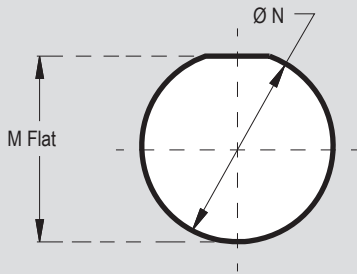
FRONT OR REAR PANEL MOUNT  
SQUARE FLANGE RECEPTACLE



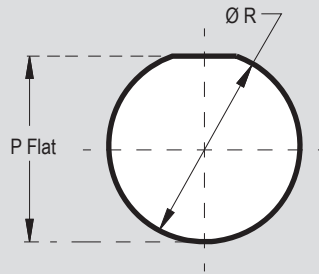
REAR PANEL MOUNT  
JAM NUT RECEPTACLE

Panel Cut-Out Dimensions						
Shell Size	Mounting Style	N Flat	Ø P	G BSC	Ø H Holes	Ø R
17	Jam Nut	1.104 (28.04)	1.135 (28.83)	-	-	-
	Square Flange	-	-	1.060 (26.92)	.130 (3.30) .126 (3.20)	1.078 (27.38)
19	Jam Nut	1.235 (31.67)	1.260 (32.00)	-	-	-
	Square Flange	-	-	1.191 (30.25)	.130 (3.30) .126 (3.20)	1.203 (30.56)

### SERIES 804 USB MIGHTY MOUSE RJ45 PANEL CUTOUTS FOR SHELL SIZE 15 AND 16



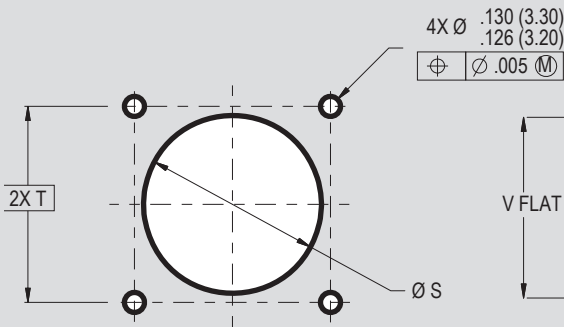
REAR PANEL MOUNT  
JAM NUT RECEPTACLE



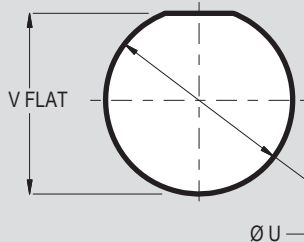
FRONT PANEL MOUNT  
JAM NUT RECEPTACLE

Panel Cut-Out Dimensions					
Shell Size	Mounting Style	M Flat	Ø N	P Flat	Ø R
15	Front Mount	-	-	1.015 (25.78) 1.011 (25.68)	1.135 (28.83)
	Rear Mount	1.041 (26.44) 1.037 (26.34)	1.070 (27.18)	-	-
16	Front Mount	-	-	1.157 (29.38) 1.153 (29.27)	1.198 (30.43)
	Rear Mount	1.102 (27.99) 1.098 (27.89)	1.135 (28.83)	-	-

### SERIES 805 USB MIGHTY MOUSE RJ45 PANEL CUTOUTS FOR SHELL SIZE 19 AND 21



FRONT OR REAR PANEL MOUNT  
SQUARE FLANGE RECEPTACLE  
(NOTE: -12 & -22 REAR MOUNT ONLY  
-02 FRONT OR REAR MOUNT)



REAR PANEL MOUNT  
JAM NUT RECEPTACLE

Panel Cut-Out Dimensions				
Shell Size	Ø S	T BSC	Ø U	V Flat
19	1.203 (30.56)	1.327 (33.71)	1.262 (32.05) 1.258 (31.95)	1.233 (31.32) 1.229 (31.22)
	1.328 (33.73)	1.452 (36.88)	1.387 (35.23) 1.383 (35.13)	1.360 (34.54) 1.356 (34.44)

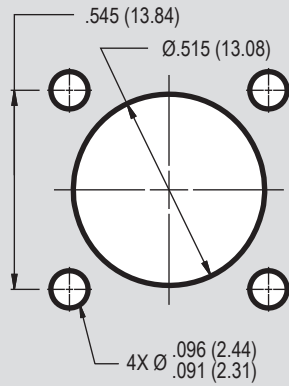


# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference

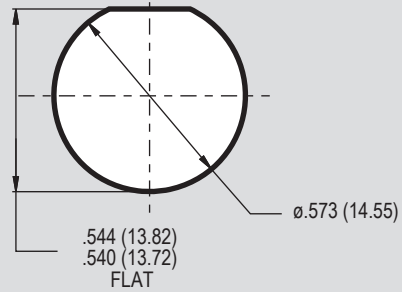


## Recommended panel cutouts for Mighty Mouse series 801 and 805 “Micro” USB connectors

### SERIES 801 MIGHTY MOUSE, MICRO USB PANEL CUTOUTS FOR SHELL SIZE 8



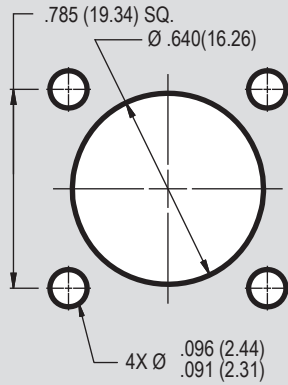
SQUARE FLANGE RECEPTACLE



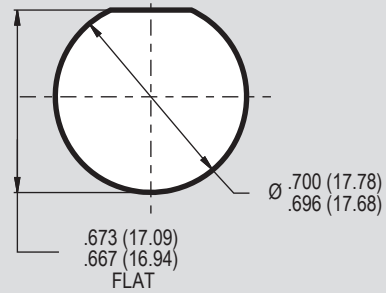
REAR PANEL MOUNT  
JAM NUT RECEPTACLE

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### SERIES 805 MIGHTY MOUSE, MICRO USB PANEL CUTOUTS FOR SHELL SIZE 10



SQUARE FLANGE RECEPTACLE



REAR PANEL MOUNT  
JAM NUT RECEPTACLE



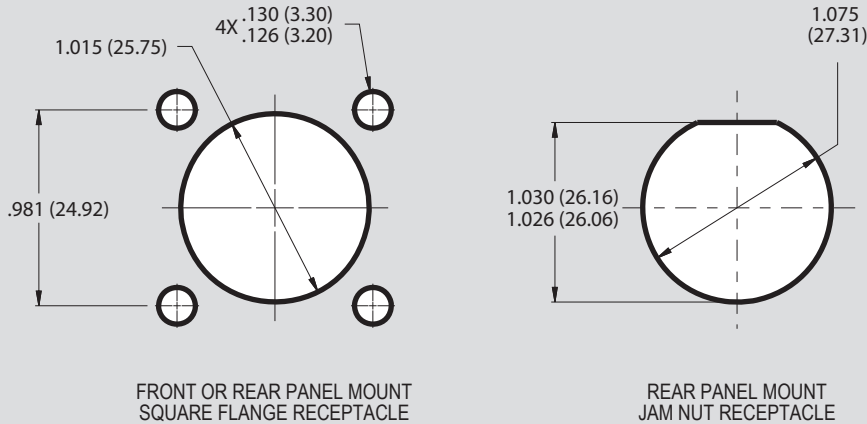
# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



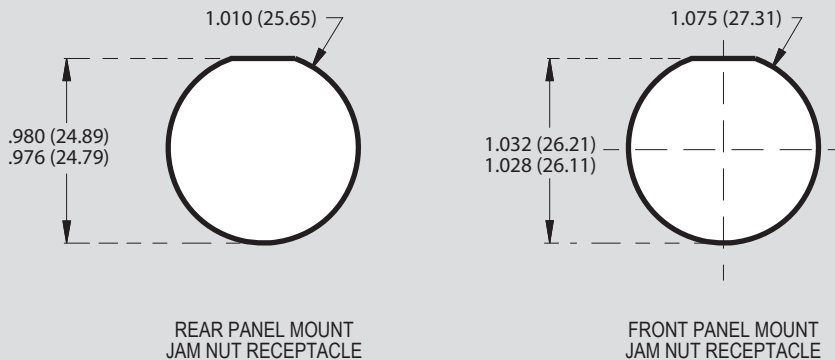
## Recommended panel cutouts for Mighty Mouse Series 801, 804 and 805 connectors

A

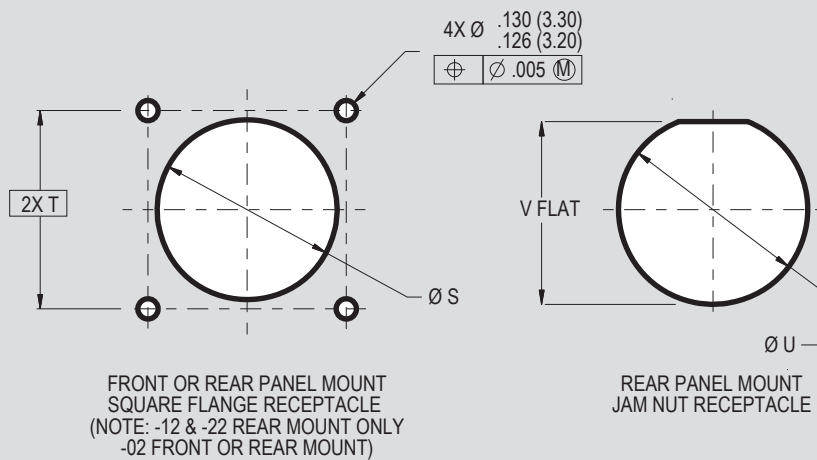
### SERIES 801 MIGHTY MOUSE, TYPE A STANDARD USB, PANEL CUTOUTS FOR SHELL SIZE 16



### SERIES 804 USB MIGHTY MOUSE, TYPE A STANDARD USB, PANEL CUTOUTS FOR SHELL SIZE 14



### SERIES 805 USB MIGHTY MOUSE, TYPE A STANDARD USB, PANEL CUTOUTS FOR SHELL SIZE 18





# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference

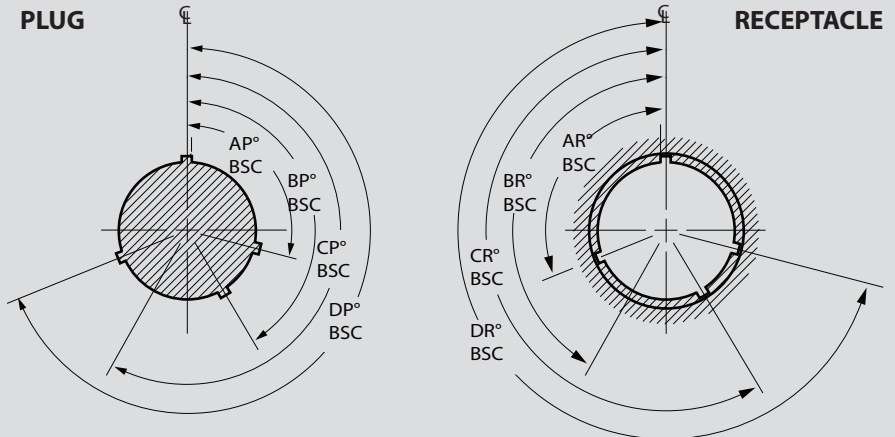


## Alternate key and keyway positions for MIL-DTL-38999 and MIL-DTL 28840 type connectors

### MIL-DTL-38999 POLARIZATION KEY(PLUG) AND KEYWAY (RECEPTACLE) POSITIONS

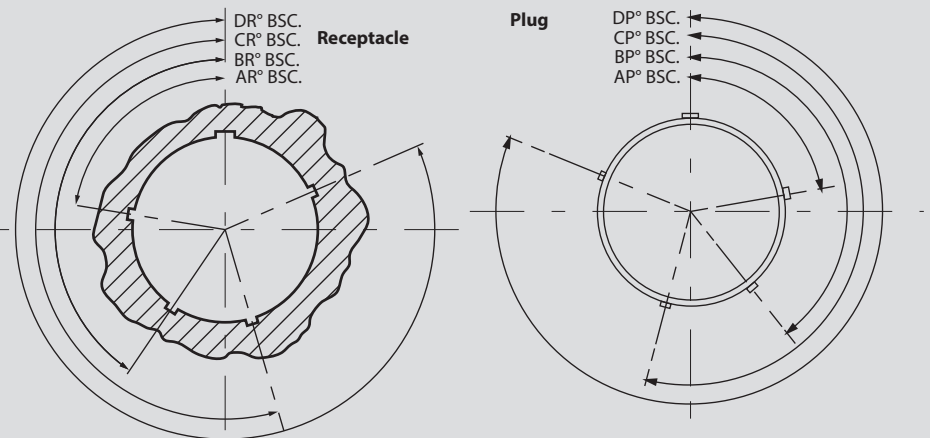
A

Alternate Key and Keyway Polarization					
Shell Size	Key and Keyway Code	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
17 19	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272



### MIL-DTL-28840 POLARIZATION KEY AND KEYWAY ARRANGEMENTS

Alternate Key and Keyway Polarization					
Shell Size	Key and Keyway Code	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
15 (C) 17 (D)	1	80	142	196	293
	2	135	170	200	310
	3	49	169	200	244
	4	66	140	200	257
	5	62	145	180	280
	6	79	153	197	272
19 (E)	1	80	142	196	293
	2	135	170	200	310
	3	49	169	200	244
	4	66	140	200	257
	5	62	145	180	280
	6	79	153	197	272



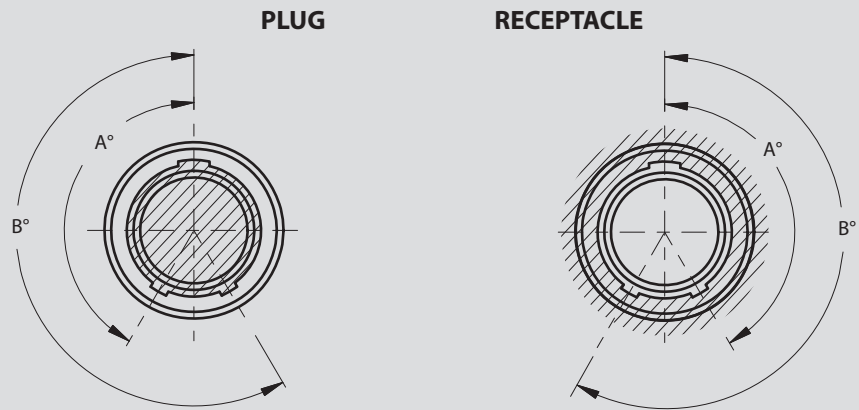


Alternate key and keyway positions for  
Mighty Mouse Series 801 and 805 connectors

A

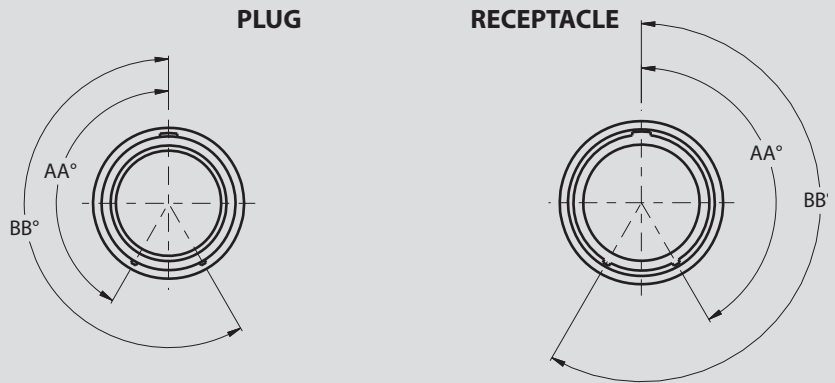
**SERIES 801 MIGHTY MOUSE ALTERNATE KEY(PLUG) KEYWAY (RECEPTACLE) POSITIONS**

Alternate Key Positions		
Position	A°	B°
A	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°
E	75°	275°
Rev.# 1.14.23	95°	210°



**SERIES 805 MIGHTY MOUSE ALTERNATE KEY(PLUG) KEYWAY (RECEPTACLE) POSITIONS**

Alternate Key and Keyway Positions		
Position	AA°	BB°
A	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°
E	75°	275°
F	95°	210°



Normal and Alternate Position Key Rotation (Plug)

Normal and Alternate Position Keyway Rotation (Receptacle)



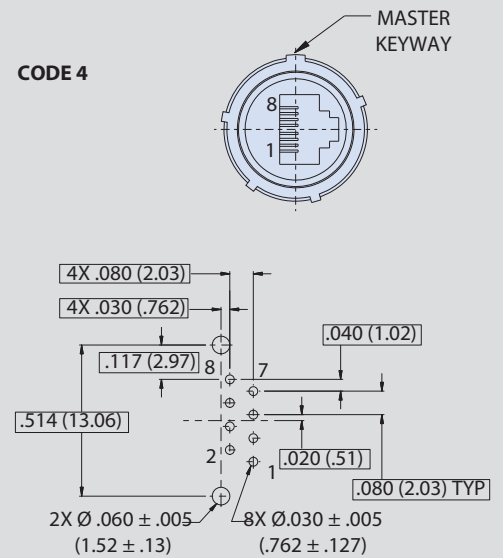
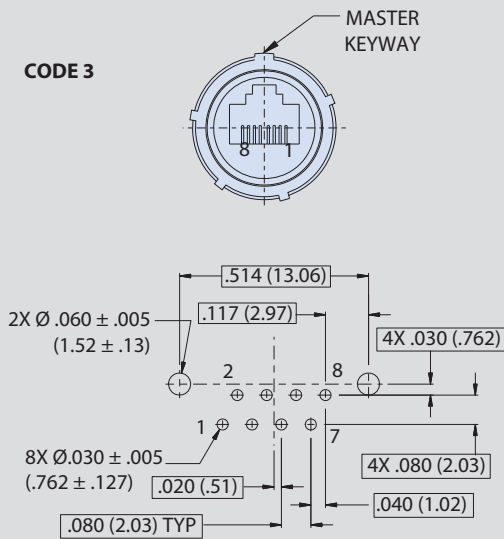
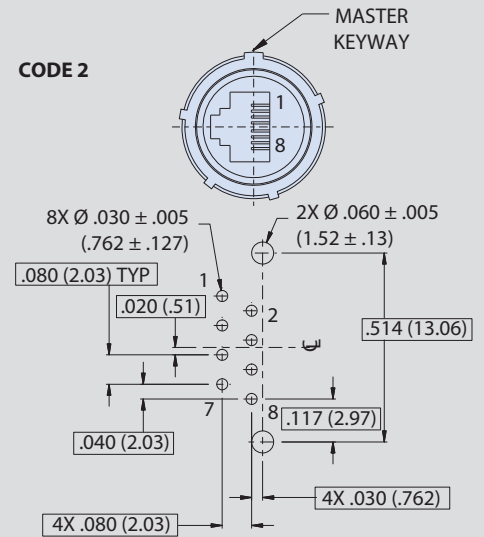
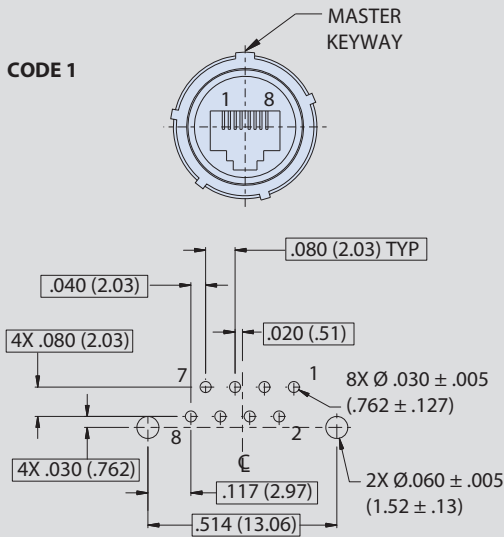
# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference

## PCB Footprint and orientation options for SuperSeal™ PCB receptacles



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### RJ45 PCB FOOTPRINT AND ORIENTATIONS FOR MIL-DTL-38999, 5015, 26482 AND MIGHTY MOUSE SERIES 80, SHOWN FROM SOLDER SIDE (BOTTOM) OF BOARD





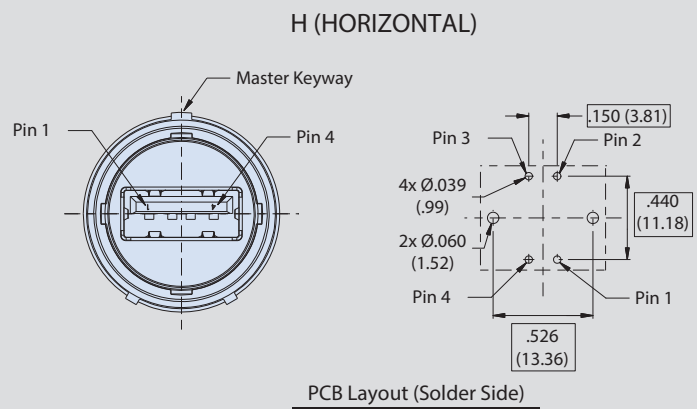
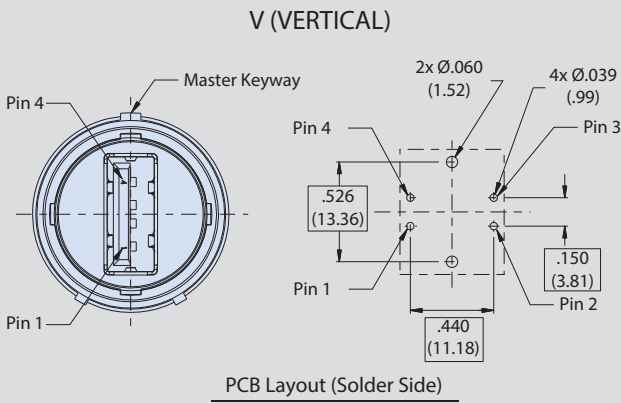
# RJ45 ETHERNET, USB, HDMI, AND DISPLAY PORT Introduction and Technical Reference



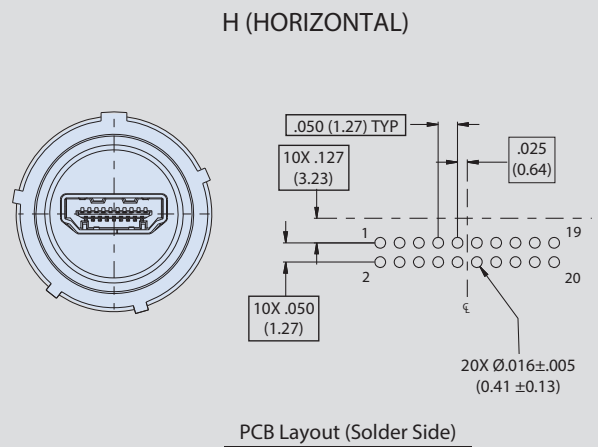
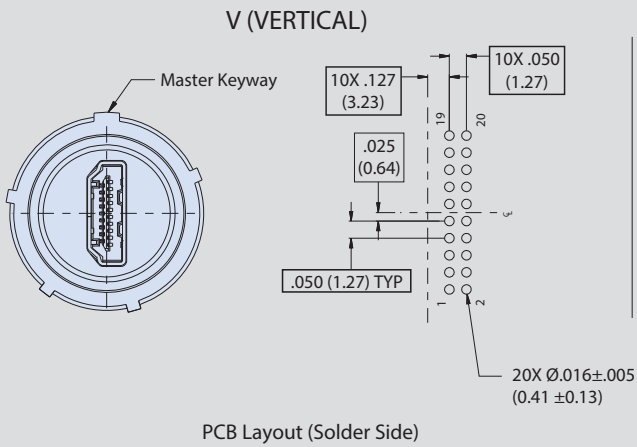
## PCB footprint and orientation options for SuperSeal™ PCB receptacles

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### STANDARD USB 2.0 PCB FOOTPRINTS FOR MIL-DTL-38999, 5015, 26482 AND MIGHTY MOUSE SERIES 80, SHOWN FROM SOLDER SIDE (BOTTOM) OF BOARD



### HDMI PCB FOOTPRINT AND ORIENTATIONS FOR MIL-DTL-38999, SHOWN FROM SOLDER SIDE (BOTTOM) OF BOARD







# Introduction and Technical Reference

## Modification codes for SuperSeal™ connectors

A

### ASTM E595 Outgassing

#### MOD CODE 186S

- SuperSeal® connectors specially processed to meet ASTM E595 outgassing requirements.
- Modification code specifies special outgassing bakeout processing.
- Meets NASA Screening Level 1 requirements

Space flight equipment requires low-outgassing components in order to prevent degradation to optics and other sensitive instruments. The space industry has adopted a standardized test procedure, ASTM E595, to evaluate outgassing properties. In the ASTM test, material samples are heated to 125° C at a vacuum of  $5 \times 10^{-5}$  torr for 24 hours. The test sample is then weighed to calculate the Total Mass Loss (TML), which may not exceed 1.0% of the total initial mass. A collector plate is used to determine the Collected Volatile Condensable Material (CVCM), which may not exceed 0.1% of the total original specimen mass. SuperSeal™ connectors contain nonmetallic materials such as rubber, plastic, adhesives and potting compounds which can give off gases when subjected to a vacuum or high heat. Unless the connector is specially processed, the TML and CVCM can exceed allowable limits. Glenair is able to offer a bakeout process, 48 hour oven bakeout at 257° F, which assures all materials comply with ASTM E595

### UL 94 V-0 Flammability Standard

#### MOD CODE 928

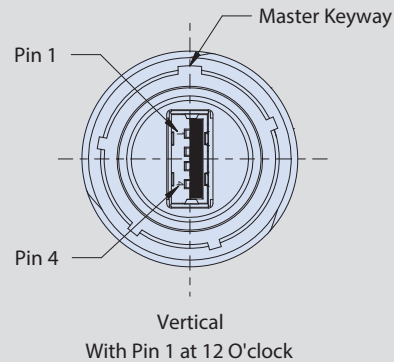
- SuperSeal® connectors specially processed to meet UL 94 V-0 flammability standard

UL 94, the Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances testing is a plastics flammability standard released by Underwriters Laboratories of the USA. The standard classifies plastics according to how they burn in various orientations and thicknesses. From lowest (least flame-retardant) to highest (most flame-retardant) V-0. Burning stops within 10 seconds on a vertical specimen; specimens may not drip flaming particles.

### Flip Vertical USB Orientation by 180 degrees

#### MOD CODE 915

Flip standard, vertically oriented USB designs 180 degrees, allowing pin 1 to be located at the 12 O'clock position.





# SuperSeal™

## USB 3.0 connectors

The latest version of the Universal Serial Bus (USB) standard for interfacing computers and electronic devices sees a significant speed increase over the previous standard. The USB 2.0 standard offers a theoretical maximum signaling rate of 480 megabits per second, while USB 3.0 defines a maximum rate of 5 gigabits per second—more than ten times faster than USB 2.0. To achieve this, one-way communication on USB 2.0 has been dropped. USB 3.0 uses two unidirectional data paths, one to receive data and the other to transmit. USB 3.0 also provides up to 900mA of power when needed (better power management helps to conserve power when connected devices sit idle), as well as robust sealing against fluids and dust for harsh environments with IP67-rated sealing in an unmated condition and IP68-rated when mated. Glenair connectors and cable assemblies deliver improved EMI/RFI shielding, outstanding sealing and improved shock and vibration protection. USB 3.0 is available across the following connector types: 38999, 5015 (ITS), 26482 (IPT), 28840 and Mighty Mouse. These popular connector families fill the growing need within aerospace, naval, industrial, and soldier worn, harsh-environment applications to benefit from this ubiquitous, high-speed, data transmission protocol. Military grade connector protection against water ingress, dust and debris, while maintaining signal integrity allows for USB 3.0 to be used across various applications. Glenair is committed to offering an evolving range of protocol support and termination options to meet advanced communication requirements in harsh environmental conditions.



- **USB 3.0 protocol**
- **High-speed data transmission rate of up to 5Gb/s**
- **High-sealing capability: IP67 rated in unmated condition. IP68 rated in mated condition**
- **Available across all SuperSeal™ connector packages including D38999, 5015 (ITS), 26482 (IPT), 28840 and Mighty Mouse Series 801, 804 and 805**

MIL-DTL-38999 TYPE  
FIELD-READY  
RJ45 ETHERNET

# SUPERSEAL™



Rugged environmental MIL-DTL-38999 type connectors with IP67 unmated sealing, robust insert-to-shell grounding, and a complete range of wire, cable, and circuit board terminations



## Features

- Superior sealing—IP68 when mated—for complete system protection against water, sand and dust
- Highly durable RJ45 design, including enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance
- Shielded/grounded coupler designs in both receptacle and plug connectors
- Crimp, solder-cup, PC tail, and Quadrax contact/wire termination options
- RJ45 plug and/or jack interface options available in Cat 5e or Cat 6a
- Industry standard scoop proof, self-locking, triple-start threaded coupling design of MIL-DTL-38999 Series III type connectors
- Intermateable with other MIL-DTL-38999 type RJ45 field-duty connectors



Glenair, Inc.  
1211 Air Way  
Glendale, CA 91201-2497  
818-247-6000  
sales@glenair.com  
www.glenair.com



RJ45 CAT 5E/6A ETHERNET

# MIL-DTL-38999 Series III Type Connectors



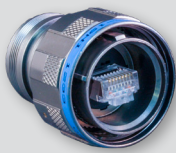
## Product Selection Guide



**233-312** E-9  
SuperSeal™ CAT 6A Plug with RJ45 Male Mating Interface and Accessory Threads



**233-330** E-22  
SuperSeal™ CAT 5e and 6A Feed-thru Receptacle with Jack-to-Jack RJ45.



**233-300** E-10  
SuperSeal D38999 Type plug with CAT 5e or 6A RJ45 Plug or D38999 Type Receptacle with CAT 5e or 6A RJ45 Jack. D38999 Type Shells with Accessory Threads



**Cable Assemblies** E-24  
SuperSeal™ CAT 5e Cable Assemblies

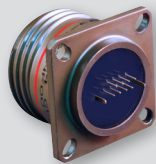
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**233-301** E-12  
SuperSeal™ CAT 5e Receptacle Adapter with RJ45 Mating Interface and Crimp Removable Contacts.



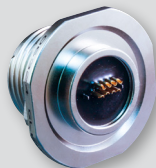
**Transient Voltage Suppression (TVS) RJ45 Connectors** E-25  
Prevents Catastrophic EMP Failure in Military and Commercial Aircraft



**233-302** E-14  
SuperSeal™ CAT 5e Receptacle with RJ45 Mating Interface and PC Tail Termination.



**244-001** E-27  
SuperSeal™ CAT 5e Transient Voltage Suppression, Jam-Nut Receptacle with Standoffs and RJ45 Jack to PC Tail or Solder Cup Termination.



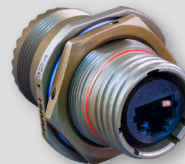
**233-303** E-16  
SuperSeal™ CAT 5e Receptacle with RJ45 Mating Interface and Solder Cup Termination.



**244-002** E-28  
SuperSeal™ CAT 5e Transient Voltage Suppression, Wall Mount Receptacle with Standoffs and RJ45 Jack, Mating Interface to PC Tail or Solder Cup.



**233-304** E-18  
SuperSeal™ CAT 5e MIL-STD-1560 Interface Receptacle Adapter with Accessory Threads and Rear RJ45 Jack.



**244-003** E-29  
SuperSeal™ CAT 5e Transient Voltage Suppression Jam-Nut Receptacle with Accessory Threads and RJ45 Jack, Mating Interface to PC Tail or Solder Cup.



**233-305** E-20  
SuperSeal™ CAT 5e Quadrx Interface Receptacle Adapter with Accessory Threads and Rear RJ45 Jack.



**244-004** E-30  
SuperSeal™ CAT 5e Transient Voltage Suppression Wall Mount Receptacle with Accessory Threads and RJ45 Jack, Mating Interface to PC Tail or Solder Cup.



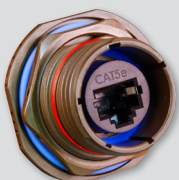
SERIES 23

# SuperSeal™

## Performance Hardened CAT 6A and CAT 5e

The SuperSeal family of ruggedized Cat 5e and 6A SuperNine connectors are IP68 rated in the mated condition for reliable environmental field use. SuperSeal connectors provide military grade protection and durability for operational use under harsh environmental conditions. SuperSeal connectors benefit from increased operating temperature range, longer life cycle and, significantly improved vibration and shock performance. CAT 5e and 6A RJ45 Ethernet is the standard data communication protocol for gathering, distribution and sharing of C4ISR information to and from command and field units within military, police fire and rescue organizations. SuperSeal provides key performance benefits including superior sealing, grounding, and wire termination for more flexible and reliable communications in rugged field applications.

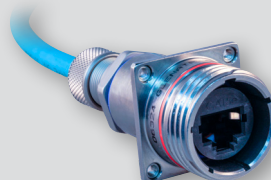
- CAT 5e and CAT 6A versions available
- IP67 unmated—for complete system protection against water, sand and dust
- Highly durable SuperSeal™ insert design, provides enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance
- Crimp, solder-cup, PC tail and cable assemblies



Jam-nut  
Mount



Wall  
Mount



Cable  
Assemblies



# RJ45 CAT 5E AND 6A ETHERNET

# MIL-DTL-38999 Series III Type Connectors



## Performance Specifications

B

RJ45 CAT 5e Performance Specifications	
Property	MIL-DTL-38999 Series III Type

Material and Finish	
Shell/Coupling and Plating	Complete list of options available in the Material and Finish Options portion of this section
Contacts	PC tails, solder cup, and crimp contacts: copper alloy, gold plated
RJ45 Insulator	PPS
Grommet, Peripheral Seal, Interfacial Seal, O-ring	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988
Shell Sizes	17 and 19
Shielding Sleeve	Material: Copper alloy Finish: Nickel

Electrical Specifications	
Data Rate	CAT 5e = 10 BASE-T, 100 BASE-TX, and 1000 BASE-T/1000 BASE-TX
Current Rating	Cat 5e, 1.5 Amps
D.W.V.	1000 VDC (700 VAC)
I.R.	500 Mega ohms @ 500 VDC
Frequency	100 MHz, Cat 5e
Wiring	Straight through, Cat 5e
Cabling Length	Up to 100 meters or 100 meters max.
Shield Continuity	Continuous through coupler or continuous coupler to shell

Environmental/Mechanical Performance	
Sealing	IP68 mated condition, IP67 unmated condition
Outgassing	<b>Mod Code 186S</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0
Operating Temperature	-40°C to +120°C
Vibration	20g, 3 Axis, 10 - 2000Hz
Mechanical Shock	300 g's
Backshell Interface	MIL-DTL-38999, Designator H
Mating System	Triple-start stub ACME
Mating Cycles	500

RJ45 CAT 6A Performance Specifications	
Property	MIL-DTL-38999 Series III Type

Material and Finish	
Shell/Coupling and Plating	Complete list of options available in the Material and Finish Options portion of this section
Contacts	crimp contacts: copper alloy, gold plated
RJ45 Insulator	PPS
Grommet, Peripheral Seal, Interfacial Seal, O-ring	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988
Shell Sizes	17 and 19
Shielding Sleeve	Material: Copper alloy Finish: Nickel

Electrical Specifications	
Data Rate	CAT 6A = 10G BASE-T
Current Rating	Cat 6A, 1.5 Amps
D.W.V.	1000 VDC (700 VAC)
I.R.	500 Mega ohms @ 500 VDC
Frequency	500 MHz, Cat 6A
Wiring	Straight through, Cat 6A
Cabling Length	Up to 100 meters.
Shield Continuity	Continuous through coupler or continuous coupler to shell

Environmental/Mechanical Performance	
Sealing	IP68 mated condition, IP67 unmated condition
Outgassing	<b>Mod Code 186S</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0
Operating Temperature	-40°C to +120°C
Vibration	20g, 3 Axis, 10 - 2000Hz
Mechanical Shock	300 g's
Backshell Interface	MIL-DTL-38999, Designator H
Mating System	Triple-start stub ACME
Mating Cycles	500



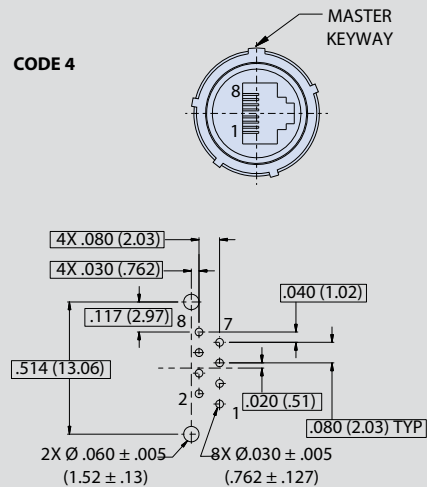
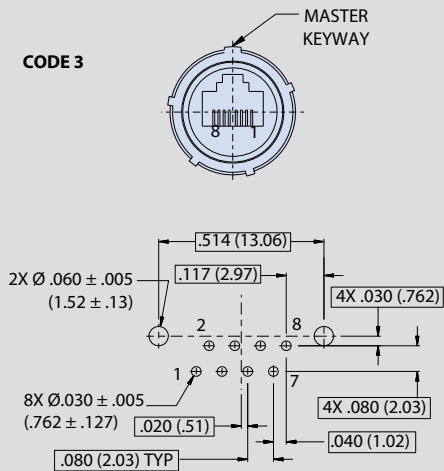
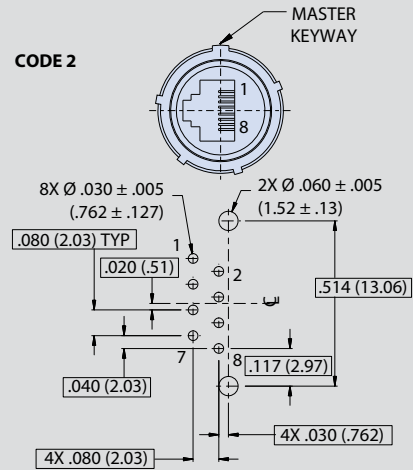
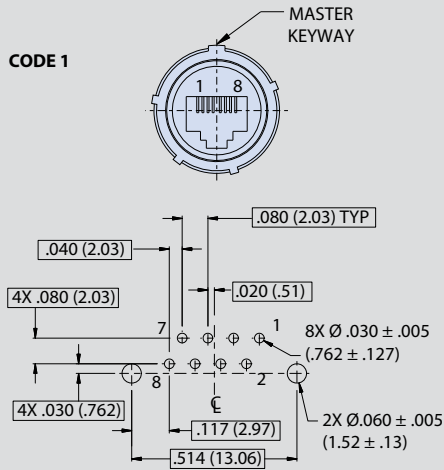
RJ45 CAT 5E ETHERNET

MIL-DTL-38999 Series III Type Connectors



RJ45 PCB Footprints, Jack Orientation Options

**MIL-DTL-38999 TYPE, SUPERSEAL RJ45 PANEL CUTOUTS FOR SHELL SIZE 17 AND 19**



B



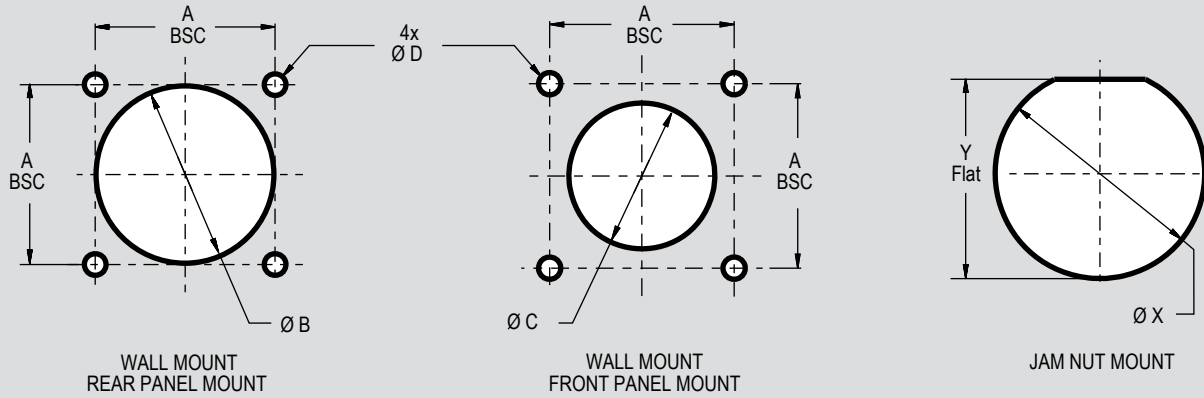
RJ45 CAT 5E ETHERNET

MIL-DTL-38999 Series III Type Connectors



Panel Cut-out Dimensions

**MIL-DTL-38999 TYPE, SUPERSEAL RJ45 PANEL CUTOUTS FOR SHELL SIZE 17 AND 19**



**B**

Panel Cut-Out Dimensions						
Shell Size	A Bsc	B Dia Min	C Dia Min	D Holes	X Dia	Y Flat
17	1.062 (26.97)	1.219 (30.96)	1.016 (25.81)	.133 (3.38)	1.270 (32.26)	1.210 (30.73)
				.123 (3.12)	1.260 (32.00)	1.208 (30.68)
19	1.156 (29.36)	1.297 (32.94)	1.141 (28.98)		1.395 (35.43)	1.335 (33.91)
					1.385 (35.18)	1.325 (33.66)





RJ45 CAT 5E/6A ETHERNET

MIL-DTL-38999 Series III Type Connectors



Modification Codes

B

**ASTM E595 Outgassing**

**MOD CODE 186S**

- SuperSeal® connectors specially processed to meet ASTM E595 outgassing requirements.
- Modification code specifies special outgassing bakeout processing.
- Meets NASA Screening Level 1 requirements

Space flight equipment requires low-outgassing components in order to prevent degradation to optics and other sensitive instruments. The space industry has adopted a standardized test procedure, ASTM E595, to evaluate outgassing properties. In the ASTM test, material samples are heated to 125° C at a vacuum of 5 X 10<sup>-5</sup> torr for 24 hours. The test sample is then weighed to calculate the Total Mass Loss (TML), which may not exceed 1.0% of the total initial mass. A collector plate is used to determine the Collected Volatile Condensable Material (CVCM), which may not exceed 0.1% of the total original specimen mass. SuperSeal™ connectors contain nonmetallic materials such as rubber, plastic, adhesives and potting compounds which can give off gases when subjected to a vacuum or high heat. Unless the connector is specially processed, the TML and CVCM can exceed allowable limits. Glenair is able to offer a bakeout process, 48 hour oven bakeout at 257° F, which assures all materials comply with ASTM E595

**UL 94 V-0 Flammability Standard**

**MOD CODE 928**

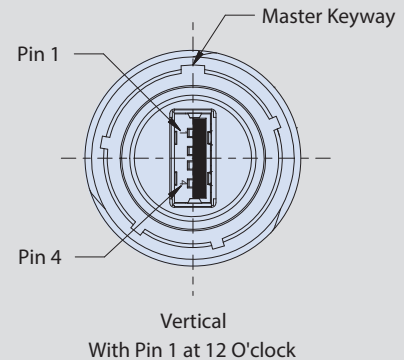
- SuperSeal® connectors specially processed to meet UL 94 V-0 flammability standard

UL 94, the Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances testing is a plastics flammability standard released by Underwriters Laboratories of the USA. The standard classifies plastics according to how they burn in various orientations and thicknesses. From lowest (least flame-retardant) to highest (most flame-retardant) V-0. Burning stops within 10 seconds on a vertical specimen; specimens may not drip flaming particles.

**Flip Vertical USB Orientation by 180 degrees**

**MOD CODE 915**

Flip standard, vertically oriented USB designs 180 degrees, allowing pin 1 to be located at the 12 O'clock position.



**MIL-DTL-38999 Connector and Cable Assembly Material and Finish Codes**

Code	Material	Finish	Finish Specification	Hrs. Salt Spray	Electrical Conductivity	Operating Temp. Range	RoHS Compliance
ME	Aluminum	Electroless Nickel	MIL-DTL-24308 Class K	96	Yes		Yes
MT	Aluminum	Nickel PTFE	SAE AMS2454	500	Yes	-65° to +175°C	Yes
NF	Aluminum	Cadmium, Olive Drab	SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel	500	Yes	-65 to +175°C	No
ZR	Aluminum	Zinc-Nickel, Black	ASTM B841 Grade 5 over electroless nickel	500	Yes	-65 to +175°C	Yes

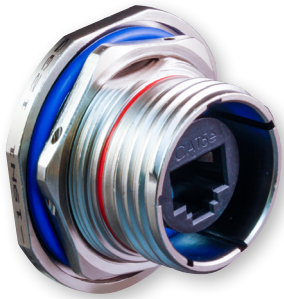


**SUPERSEAL RJ45**  
**SuperNine MIL-DTL-38999 Series III Type**  
**2330-0131 Connector Receptacle,**  
**RJ45 to Solder Cup Termination**



**B**

Part Number Development		NF	00	-	17	5	N	1
Sample Part Number	2330-0131							
Series / Basic Part No.	Series 23 SuperNine CODE RED hermetic connector							
Material/Finish	<b>ME</b> = Aluminum, Electroless Nickel <b>NF</b> = Aluminum, Cadmium O. D. Over Electroless Nickel <b>MA</b> = Aluminum, Electroless Nickel, Matte Finish <b>ZN</b> = Aluminum, Zinc NI, Olive Drab <b>ZR</b> = Aluminum, Zinc NI, Black (Tri- Valent CR) <b>AB</b> = Marine Bronze, None (Clean Only)							
Connector Style	<b>00</b> = Receptacle ,wall mount, with slotted holes <b>DO</b> = Receptacle, wall mount, with round holes <b>07</b> = Receptacle, jam nut							
Inline Shielded RJ45	<b>G</b> = Inline shielded and grounded to the shell - = Inline shielded RJ45							
Shell Size	<b>17, 19</b>							
RJ45 Category	<b>5</b> = CAT 5e <b>6A</b> = CAT 6A							
Alternate Polarization	<b>A, B, C, D, E, N</b> = Normal							
RJ45 Orientation Option	<b>1, 2, 3, 4</b>							



**NOTES**

- Material / Finish
  - Shell & Jam Nut: See Table I
  - O-Rings & Seals: Fluorosilicone
  - RJ45 Coupler Housing: UL94V-0 compliant polymer
  - Contacts: Copper alloy / gold plated
  - Sealing Compound: Polymer encapsulant
- Performances:
  - Leak Rate: 1 X 10<sup>-7</sup> cc/s max helium, 1 ATM
  - Electrical: Current rating: 1.5 AMP
  - D.W.V.: 1000 VDC, 2 mA max
  - I.R.: 500 Mega ohms @ 500 VDC
  - Operating Temperature Range: -40°C to +120°C
- Glenair connectors are designed to mate with any QPL manufacturer's MIL-DTL-38999, Series III mating plug having the same shell size and polarization, opposite gender RJ45.
- Receptacle connector designed to meet IP68 unmated condition.
- Flange gaskets are not included with wall mounted receptacles. If required, select gasket from Glenair drawing 239-204.



**SUPERSEAL RJ45**  
**SuperNine MIL-DTL-38999 Series III Type**  
**2330-0131 Connector Receptacle,**  
**RJ45 to Solder Cup Termination**



**CODE RED**

**2330-0131-00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES**

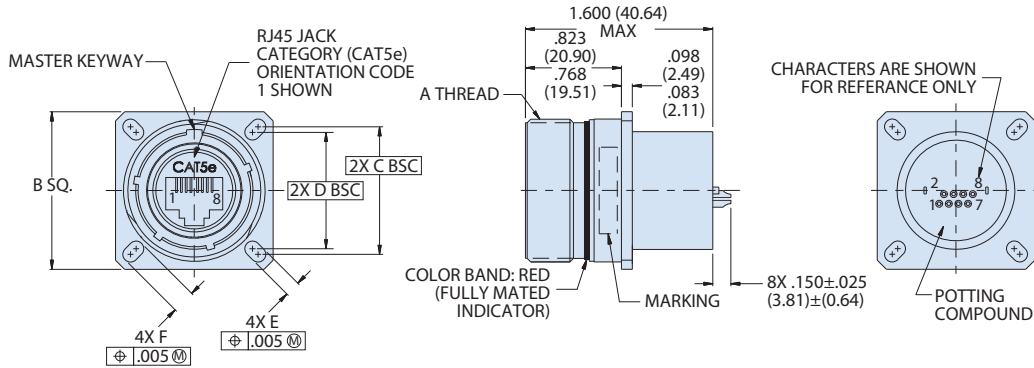
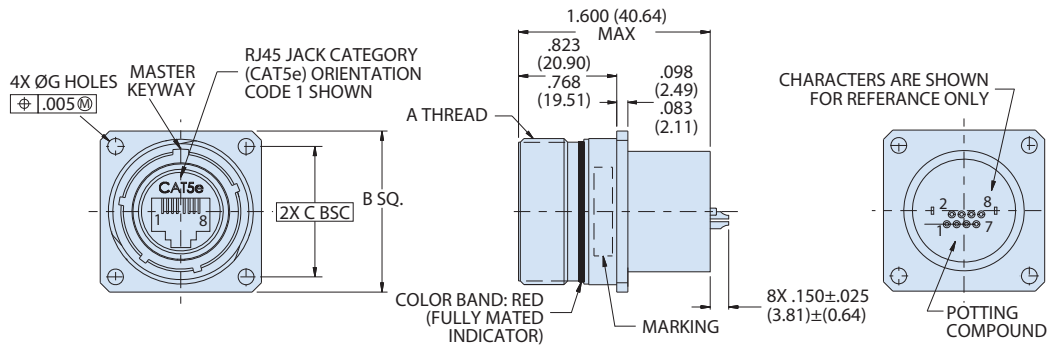


Table II Wall Mount							
Shell Size	A Thread	B SQ	C BSC	D BSC	E	F	ØG HOLES
17	1.1875-.1P-.3L-TS-2A	1.323 (33.60) 1.299 (32.99)	1.062 (26.97)	0.969 (24.61)	0.136 (3.45) 0.120 (3.05)	0.202 (5.13) 0.186 (4.72)	0.136 (3.45) 0.120 (3.05)
19	1.2500-.1P-.3L-TS-2A	1.449 (36.80) 1.425 (36.20)	1.156 (29.36)	1.062 (26.97)	0.136 (3.45) 0.120 (3.05)	0.202 (5.13) 0.186 (4.72)	0.136 (3.45) 0.120 (3.05)

**2330-0131-D0 - WALL MOUNT RECEPTACLE WITH ROUND HOLES**





**SUPERSEAL RJ45**  
**SuperNine MIL-DTL-38999 Series III Type**  
**2330-0131 Connector Receptacle,**  
**RJ45 to Solder Cup Termination**



**2330-0131-07 - JAM NUT MOUNT RECEPTACLE**

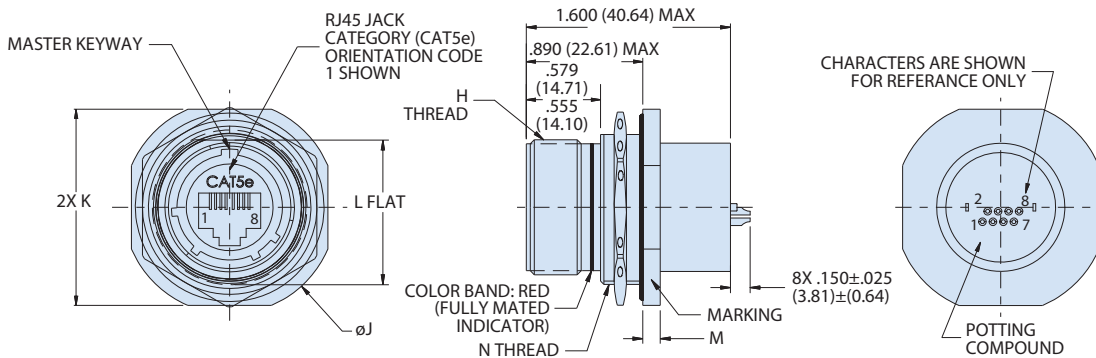


Table III Jam Nut Mount						
Shell Size	A Thread	ØJ	K	L FLAT	M	N THREAD
17	1.1875-.1P-.3L-TS-2A	1.764 (44.81)	1.642 (41.71)	1.191 (30.25)	0.122 (3.10)	M32 X 1.0-6g 0.100R
		1.740 (44.20)	1.610 (40.89)	1.181 (30.00)	0.083 (2.11)	
19	1.2500-.1P-.3L-TS-2A	1.949 (49.50)	1.827 (46.41)	1.316 (33.43)	0.153 (3.89)	M35 X 1.0-6g 0.100R
		1.925 (48.90)	1.795 (45.59)	1.306 (33.17)	0.114 (2.90)	

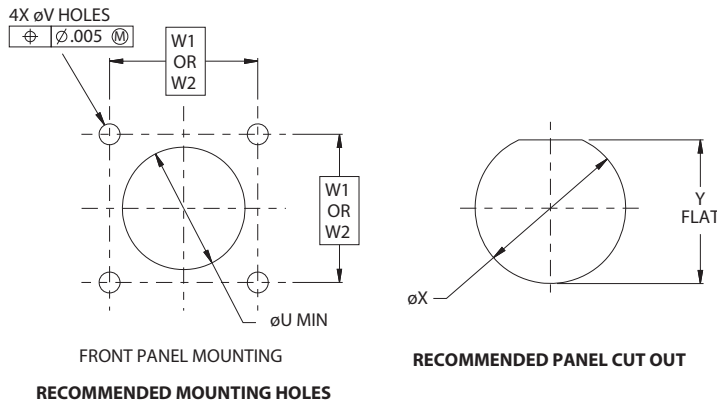


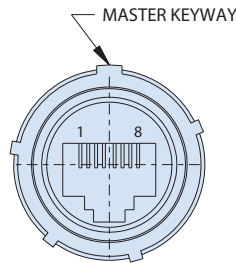
Table IV Panel Cutout and Wall Mount						
Shell Size	ØU MIN	ØV HOLES	W1 BSC	W2 BSC	ØX	Y FLAT
17	1.016 (25.81)	0.133 (3.38)	1.062 (26.97)	0.969 (24.61)	1.270 (32.26)	1.210 (30.73)
		0.123 (3.12)			1.260 (32.00)	1.200 (30.48)
19	1.141 (28.98)	0.123 (3.12)	1.156 (29.36)	1.062 (26.97)	1.395 (35.43)	1.335 (33.91)
					1.385 (35.18)	1.325 (33.65)



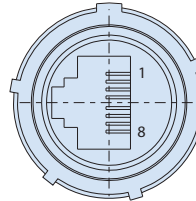
**SUPERSEAL RJ45**  
**SuperNine MIL-DTL-38999 Series III Type**  
**2330-0131 Connector Receptacle,**  
**RJ45 to Solder Cup Termination**



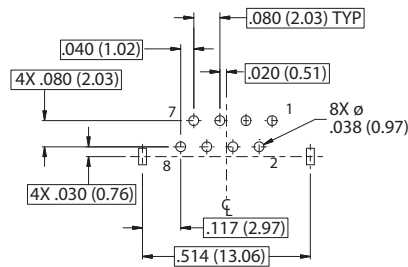
**RJ45 ORIENTATION OPTIONS (PARTIAL VIEWS SHOWN)**



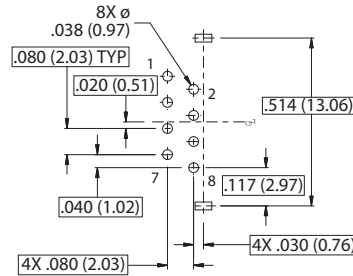
CODE 1  
(FRONT)



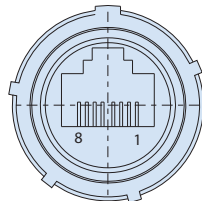
CODE 2  
(FRONT)



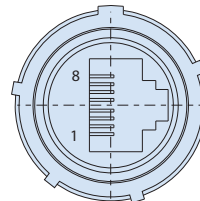
SOLDER CUP ORIENTATION  
(REAR)



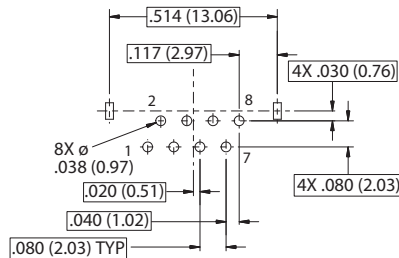
SOLDER CUP ORIENTATION  
(REAR)



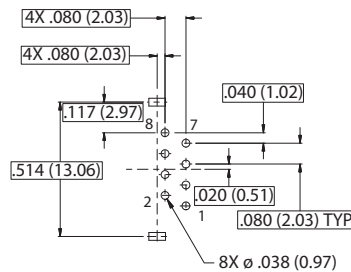
CODE 3  
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CODE 4  
(FRONT)



SOLDER CUP ORIENTATION  
(REAR)



SOLDER CUP ORIENTATION  
(REAR)



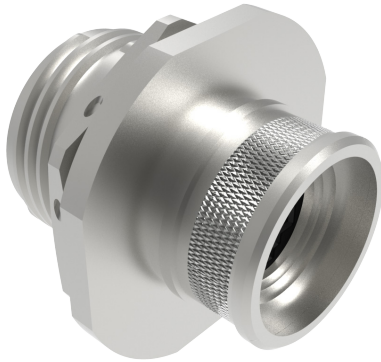


RJ45 CAT 5E/6A ETHERNET

MIL-DTL-38999 Series III Type Connectors



233-308 Coupler with integrated banding platform



Part Number Development							
Sample Part Number	233-308	NF	00	G	-17	5H	N 1
Basic Number	233-308						
Finish	See Material and Finish table						
Connector Style <sup>1</sup>	See Table V						
Insert-to-Shell Grounding	- = Inline shielded RJ45 G = Inline shielded and grounded to the shell ("G" option only with receptacle)						
Shell Size	17 or 19						
RJ45 Category	5H = CAT 5e 6A = CAT 6A (CAT 6A receptacle only, for use with 233-312)						
Alternate Key Position <sup>1</sup>	Per MIL-DTL-38999 A, B, C, D, E, N = Normal						
RJ45 Orientation	1, 2, 3, or 4						

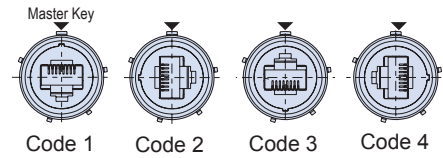
**Material and Finish**

M	Aluminum/Electroless Nickel
NF	Aluminum/Cadmium, Olive Drab, over Electroless Nickel (500 hour salt spray)
MT	Aluminum/Nickel PTFE
ME	Aluminum/Electroless Nickel (96 hour salt spray)
MA	Aluminum/ Electroless Nickel, Matte Finish (96 hour salt spray)
TZ	Aluminum/ Tin-Zinc, Green-Gold
ZN	Aluminum/ Zinc Ni, Olive Drab
ZR	Aluminum/Black Zinc-Nickel (Tri-Valent Cr)
XM	Composite/Electroless Nickel
XMT	Composite/Nickel-PTFE
XO	Composite/No Finish
XW	Composite/Cadmium, Olive Drab, Over Electroless Nickel (500 Hour Salt Spray)
Z1	Stainless Steel/Passivate
ZL	Stainless Steel/ Electro-Deposited Nickel
ZW	Stainless Steel/Cad Olive Drab Over Nickel
AB	Marine Bronze/None (Clean Only)

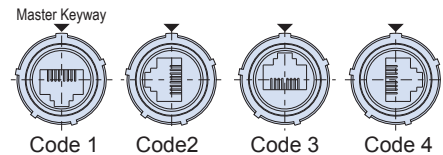
**Connector Style**

00	Wall mount receptacle with slotted holes <sup>3</sup>
D0	Wall mount receptacle with round holes
CM	Wall mount receptacle with metric clinch nuts
CS	Wall Mount Receptacle with standard clinch nuts
07	rear panel mount, jam nut receptacle
05	Inline Receptacle
G6	Plug

**RJ45 Orientation Options (Plug Face)**



**RJ45 Orientation Options (Receptacle Face)**



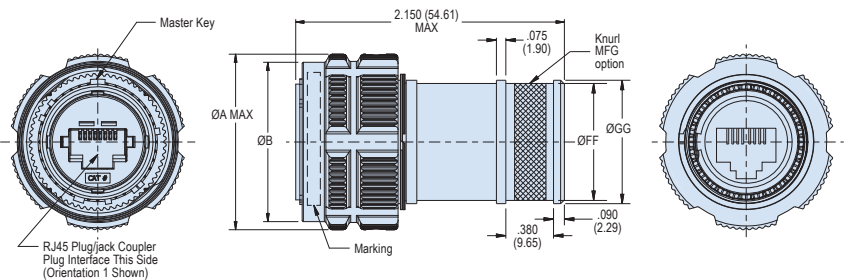
**NOTES**

- Interpret drawing per ASME y14.5m - 2009.
- Material/finishes:
  - Shell, barrel, coupling nut, jam nut - see Table I (Composite coupling nut no plating required).
  - Insulators: High grade rigid dielectric/N.A.
  - Contacts: Copper alloy, gold plated
  - Seals: Silicone based elastomer
  - RJ45 coupler housing: UL94V-0 compliant ABS or PPS
  - Hardware: Stainless steel/passivated
- RJ45 jack/plug specifications:
  - RJ45 coupler maintains shield continuity
  - Wiring: straight through
  - Rohs compliant
  - Electrical: current rating: 1.5 Amp
  - D.W.V.: 1000 VDC, 2 MA MAX.
  - I.R.: 500 Mega ohms @ 500 VDC
  - Operating temperature range: -40°c to +120°c
- Receptacle connector designed to meet IP67 sealing unmated condition.

**G6 - PLUG**

**G6 Plug Dimensions**

Shell Size	Ø A Max		Ø B		ØFF		ØGG	
	in	mm	in	mm	in	mm	in	mm
17	1.406	35.71	1.276	32.41	.945	24.00	.990	25.15
19	1.516	38.51	1.382	35.10	1.050	26.67	1.100	27.94





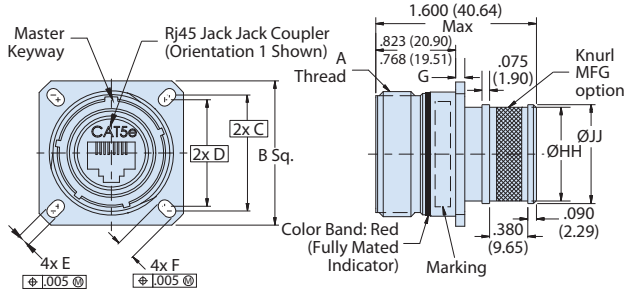
RJ45 CAT 5E/6A ETHERNET

MIL-DTL-38999 Series III Type Connectors

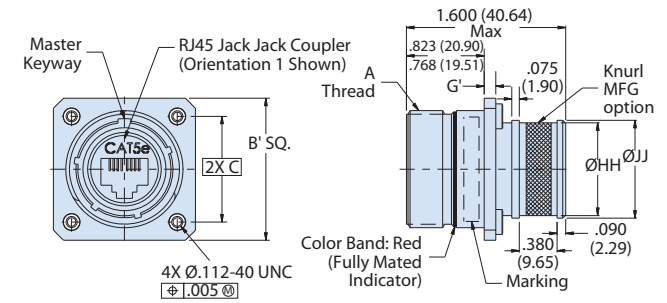


233-308 Coupler with integrated banding platform

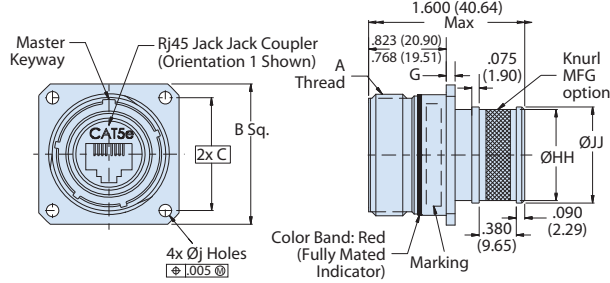
**00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES**



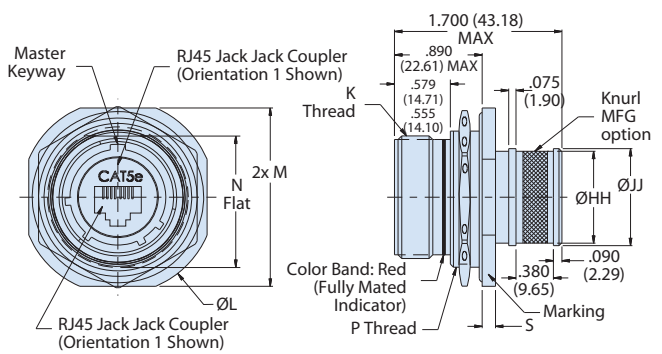
**CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS**



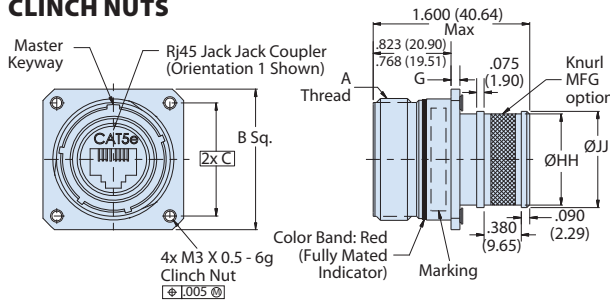
**D0 - WALL MOUNT RECEPTACLE WITH ROUND HOLES**



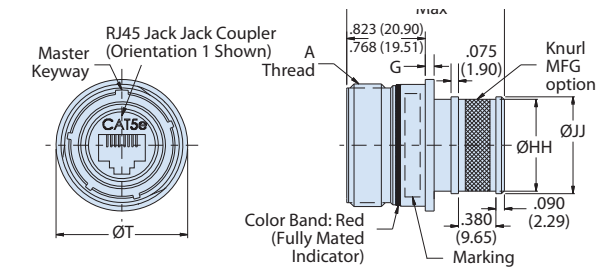
**07 - JAM NUT MOUNT RECEPTACLE (SEE TABLE III)**



**CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS**



**05 - INLINE RECEPTACLE (SEE TABLE III)**



Wall Mount Receptacle Dimensions												
Shell Size	A Thread	B SQ	B' SQ	C BSC	D BSC	E	F	G	G'	Ø HH	Ø JJ	Ø J Holes
17	1.1875-.1P-.3L-TS-2A	1.323 (33.60)	1.437 (36.50)	1.062 (26.97)	0.969 (24.61)	0.136 (3.45)	0.202 (5.13)	0.098 (2.49)	0.122 (3.08)	0.960 (24.38)	1.022 (25.96)	0.136 (3.45)
		1.299 (32.99)	1.397 (35.48)						0.083 (2.11)			
19	1.2500-.1P-.3L-TS-2A	1.449 (36.80)	1.531 (38.89)	1.156 (29.36)	1.062 (26.97)	0.120 (3.05)	0.186 (4.72)	0.083 (2.11)	0.153 (3.89)	1.062 (26.97)	1.125 (28.58)	0.120 (3.05)
		1.425 (36.20)	1.491 (37.87)						0.114 (2.90)			

Jam Nut Mount and Inline Receptacle Dimensions								
Shell Size	K Thread	Ø L	M	N Flat	P Thread	R Thread	S	Ø T Max
17	1.1875-.1P-.3L-TS-2A	1.764 (44.81)	1.642 (41.71)	1.191 (30.25)	M32 X 1.0-6g 0.100R	M25 X 1.0-6g 0.100R	0.122 (3.10)	1.406 (35.71)
		1.740 (44.20)	1.610 (40.89)	1.181 (30.00)			0.083 (2.11)	
19	1.2500-.1P-.3L-TS-2A	1.949 (49.50)	1.827 (46.41)	1.316 (33.43)	M35 X 1.0-6g 0.100R	M28 X 1.0-6g 0.100R	0.153 (3.89)	1.516 (38.51)
		1.925 (48.90)	1.795 (45.59)	1.306 (33.17)			0.114 (2.90)	

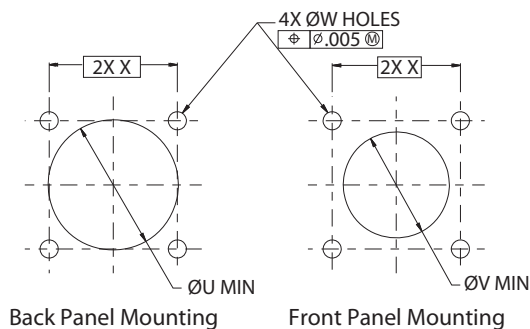


RJ45 CAT 5E/6A ETHERNET

MIL-DTL-38999 Series III Type Connectors

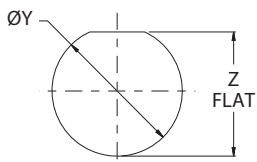


233-308 Coupler with integrated banding platform



**Recommended Mounting Holes**

Panel Thickness .228 Max (See Table IV)



**Recommended Panel Cut Out**

Panel Thickness .126-.062 (See Table IV)

PANEL CUTOUT & WALL MOUNT												
Shell Size	Ø U Min		Ø V Min		W Holes		X BSC		Ø Y		Z Flat	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
17	1.219	30.96	1.016	25.81	0.133	3.38	1.062	26.97	1.270	32.26	1.210	30.73
					0.123	3.12			1.260	32.00	1.200	30.48
19	1.297	32.94	1.141	28.98	0.133	3.38	1.156	29.36	1.395	35.43	1.335	33.91
					0.123	3.12			1.385	35.18	1.325	33.65

B





RJ45 CAT 5E/6A ETHERNET

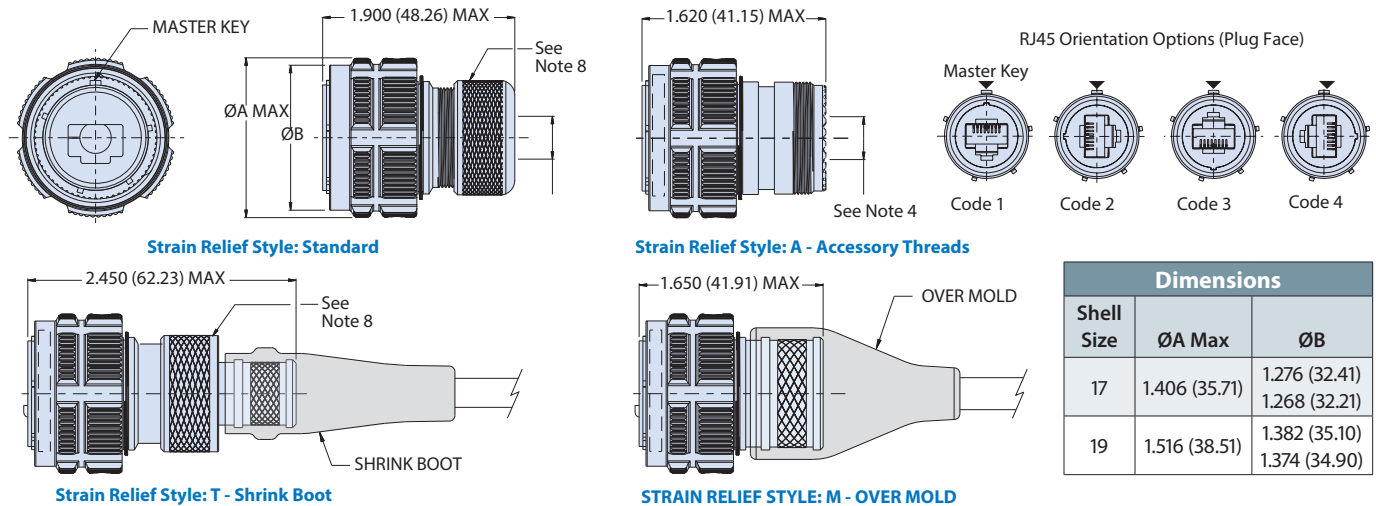
MIL-DTL-38999 Series III Type Connectors



233-312 Plug with accessory threads

B

Part Number Development	
Sample Part Number	233-312 NF G6 - 17 6A N 1
Series / Basic Part No.	233-312 = Cat 6A interface for D38999 type shell
Material/Finish	NF = Aluminum/cadmium olive drag Contact factory for additional options MT = Aluminum/nickel PTFE ME = Aluminum/electroless nickel ZR = Aluminum/zinc-nickel
Connector Style	G6 = Plug
Plug Options	(-) = CAT 6A (28 AWG) A = CAT 6A (22-24 AWG)
Shell Size	17 and 19
RJ45 Category	6A = Cat 6A
Alternate Polarization	A, B, C, D, E, N = Normal; Per MIL-DTL-38999
RJ45 Orientation	1, 2, 3, 4
Strain Relief Style	A = Accessory threads (accepts standard D38999 backshells) T = Shrink boot M = Over mold Omit for standard
Cable OD	W = Large cable OD up to .400 (10.16) Omit for cable OD .187/.312 (4.75/7.92)



**NOTES**

- Material/finish:
  - Barrel, coupling nut: see part number development. Composite coupling nut no plating required.
  - Insulators: high grade rigid dielectric/ N.A.
  - Seals: silicone based elastomer
  - Hardware: stainless steel/passivated
- RJ45 plug specifications:
  - RJ45 plug cable maintains shield continuity
  - RoHS compliant
- Electrical
  - Current rating: 1 amp
  - D.W.V.: 1000V DC/min
  - I.R.: 500 Mega ohms minimum @ 1000V DC
  - Operating temperature range: -20°C to +85°C
- Meets IP68 in mated condition
- Design accommodates cable outside diameter 0.187 (4.750) to 0.400 (10.16)
- Design accommodates CAT 6A RJ45 modular plugs:
  - (-) = CAT 6A, 28 AWG
  - A = CAT 6A, 22-24 AWG
- See assembly instructions AI233-312 for cable termination and connector assembly. Assembly instructions to be kitted with each shipment
- CAT 6A modular plugs packaged loose for each plug connector.
- Recommended torque value for different cable outside diameter.

Cable OD (in)	.187/.225	.225/.275	.275/.312	.312/.400
Torque (in/lbs)	20.6	18.3	12.6	10



# RJ45 CAT 5E/6A ETHERNET MIL-DTL-38999 Series III Type Connectors 233-300 Coupler with accessory threads



**Plug  
Front View**



**Receptacle  
Front View**



**Receptacle  
Rear View**

### Material and Finish<sup>1</sup>

<b>NF</b>	Aluminum/Cadmium, Olive Drab
<b>ME</b>	Aluminum/Electroless Nickel
<b>MT</b>	Aluminum/Nickel PTFE
<b>ZR</b>	Aluminum/Black Zinc-Nickel

### NOTES

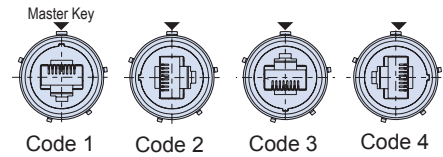
1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. G option is inline shielded and grounded to shell, available for receptacle only
3. Front panel mount only
4. Meets IP67 in unmated condition, IP68 mated
5. For shrink boot see part number 770-028
6. Receptacle has RJ45 jack. Plug has RJ45 plug to jack

Part Number Development									
<b>Sample Part Number</b>	<b>233-300</b>	<b>NF</b>	<b>00</b>	<b>G</b>	<b>17</b>	<b>5H</b>	<b>N</b>	<b>1</b>	<b>T</b>
<b>Basic Number</b>	<b>233-300</b>								
<b>Finish</b>	See Material and Finish table								
<b>Connector Style<sup>1</sup></b>	See Connector Style table								
<b>Insert-to-Shell Grounding</b>	- = Inline shielded RJ45 insert G = Shielded and grounded to shell <sup>2</sup>								
<b>Shell Size</b>	<b>17</b> or <b>19</b>								
<b>RJ45 Category</b>	<b>5H</b> = CAT 5e <b>6A</b> = CAT 6A (CAT 6A receptacle only, for use with 233-312)								
<b>Alternate Key Position<sup>1</sup></b>	Per MIL-DTL-38999 <b>A, B, C, D, E, N = Normal</b>								
<b>RJ45 Orientation</b>	<b>1, 2, 3, or 4</b>								
<b>Shrink Boot</b>	<b>T</b> = Part No. 770-028; see accessory section. (Omit for None)								

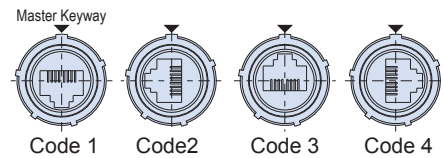
### Connector Style<sup>1</sup>

<b>00</b>	Wall mount receptacle with slotted holes <sup>3</sup>
<b>01</b>	Wall mount receptacle with slotted holes and metal cable gland
<b>05</b>	Inline Receptacle
<b>07</b>	rear panel mount, jam nut receptacle
<b>08</b>	In-line receptacle with metal cable gland
<b>D0</b>	Wall mount receptacle with round holes
<b>D1</b>	Wall mount receptacle with round holes and metal gland
<b>CM</b>	Wall mount receptacle with metric clinch nuts
<b>CG</b>	Wall mount receptacle with metric clinch nuts and metal gland
<b>CS</b>	Wall Mount Receptacle with standard clinch nuts
<b>G6</b>	plug
<b>G9</b>	Plug with metal cable gland <sup>5</sup>

### RJ45 Orientation Options (Plug Face)



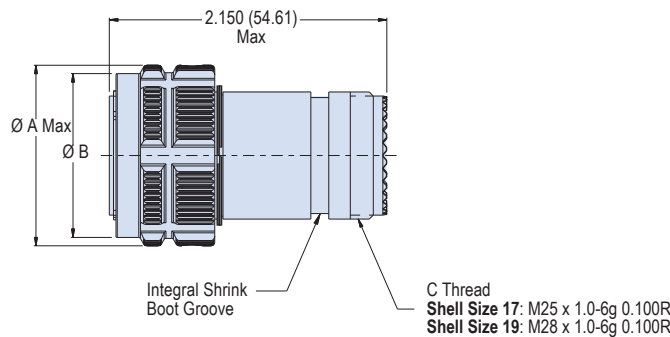
### RJ45 Orientation Options (Receptacle Face)



*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

## G6 - PLUG WITH INTEGRAL SHRINK BOOT

G6 and G7 - plug Dimensions				
Shell Size	A Dia Max		B Dia	
	in	mm	in	mm
<b>17</b>	1.406	35.71	1.276 1.268	32.41 32.21
<b>19</b>	1.516	38.51	1.382 1.374	35.10 34.90





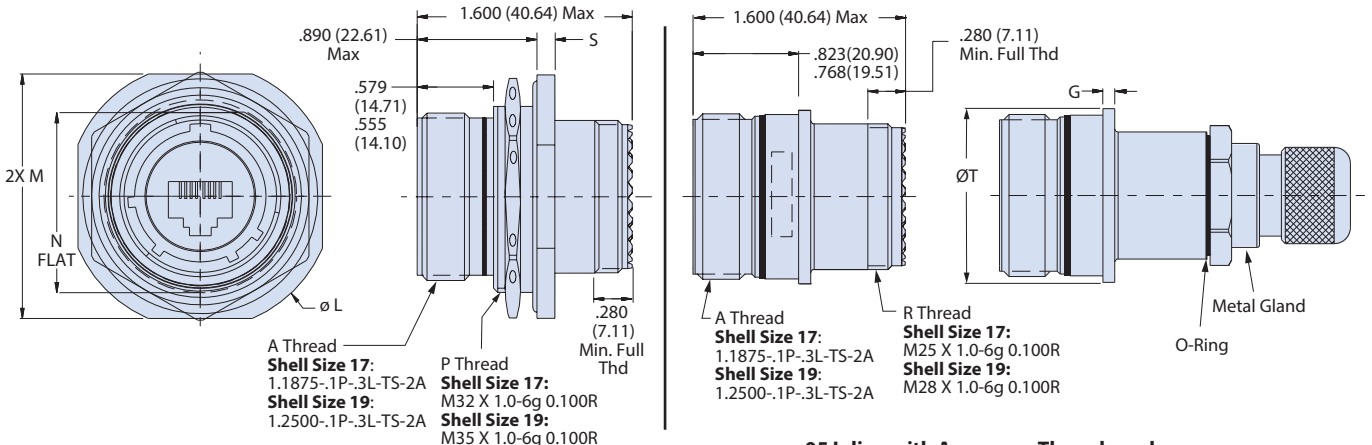
RJ45 CAT 5E/6A ETHERNET

MIL-DTL-38999 Series III Type Connectors



233-300 Coupler with accessory threads

**07 - REAR PANEL MOUNT JAM NUT AND 05 OR 08 - INLINE RECEPTACLES**

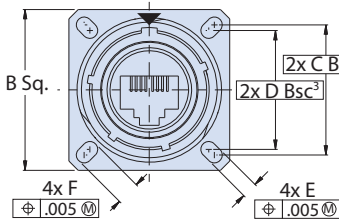


07 Jam Nut Receptacle (mating face and side view)

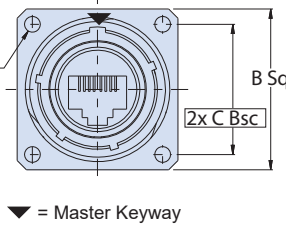
05 Inline with Accessory Threads and 08 Inline with Metal Gland (side view only)

**00, 01, DO, D1, CM AND CG - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS OR METAL GLAND**

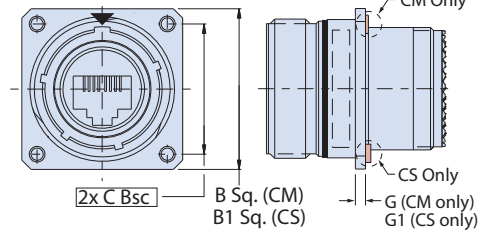
00, 01 - Wall Mount Receptacle with Slotted Holes (Mating Face)



D0, D1 - Wall Mount Receptacle with Round Holes (Mating Face)

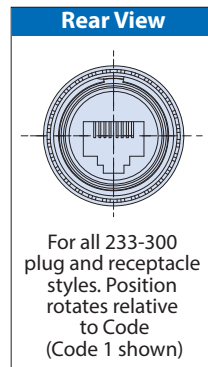
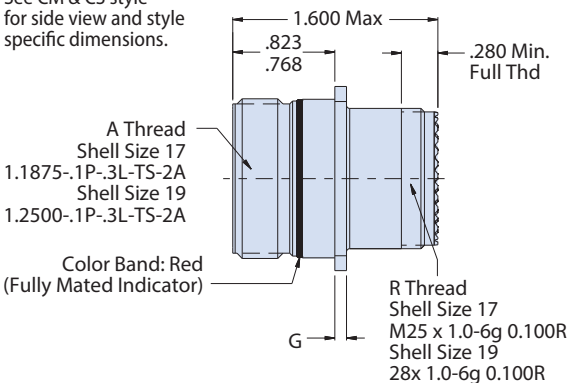


CM Metric and CS Standard - Wall Mount Receptacles (Mating Face and Side View)

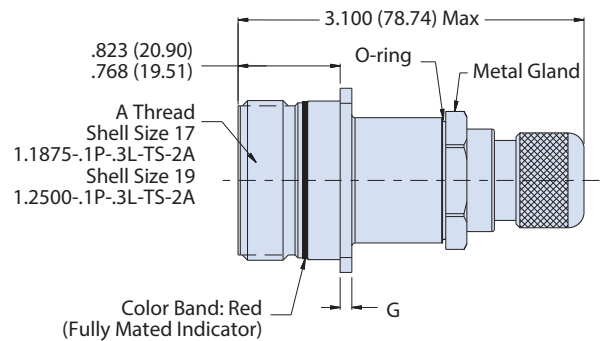


Note: See CM & CS style for side view and style specific dimensions.

00, D0, CM - Wall Mount Receptacle



01, D1, CG - Wall Mount Receptacle with Metal Gland



Jam Nut and Inline Receptacle Dimensions					
Shell Size	ØL	M	N	S	ØT Max
17	1.764 (44.81)	1.642 (41.71)	1.191 (30.25)	.122 (3.09)	1.275 (32.39)
	1.740 (44.20)	1.610 (40.89)	1.181 (30.00)	.083 (2.11)	
19	1.949 (49.50)	1.827 (46.41)	1.316 (33.43)	.153 (3.89)	1.337 (33.96)
	1.925 (48.90)	1.795 (45.59)	1.306 (33.17)	.114 (2.90)	

Wall Mount Receptacle Dimensions									
Shell Size	B Sq	B1 Sq	C Bsc	D Bsc²	E	F	G	G1	ØJ Holes
17	1.323 (33.60)	1.437 (34.50)	1.062 (26.97)	.969 (24.61)	.136 (3.45)	.202 (5.13)	.098 (2.49)	.122 (3.10)	.136 (3.45)
	1.299 (32.99)	1.397 (35.48)			.120 (3.05)	.186 (4.72)	.083 (2.11)	.083 (.58)	.120 (3.05)
19	1.449 (36.80)	1.531 (38.89)	1.156 (29.36)	1.062 (26.97)				.153 (3.89)	.120 (3.05)
	1.425 (36.20)	1.491 (37.87)						.144 (3.66)	



RJ45 CAT 5E ETHERNET

# MIL-DTL-38999 Series III Type Connectors



233-301 Plug and Receptacles with crimp removable contacts and accessory threads



Receptacle front View



Receptacle rear View

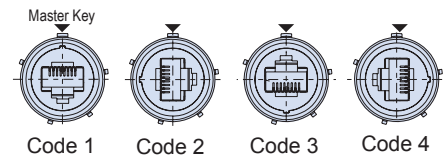
Part Number Development									
Sample Part Number	233-301	NF	00	G	17	5H	N	1	T
Basic Number	233-301								
Finish	See Material and Finish table								
Connector Style	See Connector Style table								
Insert-to-Shell Grounding	- = Inline shielded RJ45 insert G = Shielded and grounded to shell <sup>2</sup>								
Shell Size	17 or 19								
RJ45 Category	5H = CAT 5e For Cat 6A applications consult factory								
Alternate Key Position <sup>1</sup>	Per MIL-DTL-38999 A, B, C, D, E, N = Normal								
RJ45 Orientation	1, 2, 3, or 4								
Shrink Boot	T = Part No. 770-028 (Omit for None)								

B

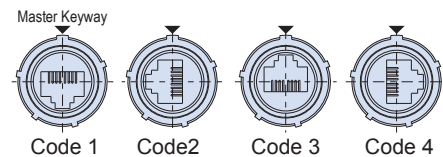
Connector Style <sup>1</sup>	
00	Wall mount receptacle with slotted holes
05	Inline Receptacle
07	rear panel mount, jam nut receptacle
D0	Wall mount receptacle with round holes
CM	Wall mount receptacle with metric clinch nuts
CS	Wall mount receptacle with metric clinch nuts
G6	plug

Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel

### RJ45 Orientation Options (Plug Face)



### RJ45 Orientation Options (Receptacle Face)



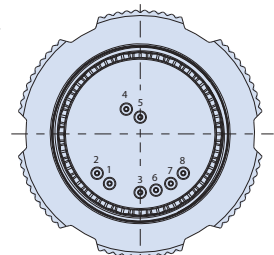
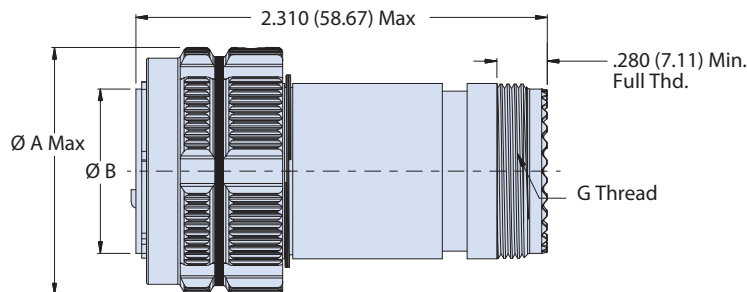
## NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- G option is inline shielded and grounded to shell, available for receptacle only
- Front panel mount only
- Crimp removable size 22 pin contacts (M39029/58-360) supplied loose
- Meets IP67 in unmated condition and IP68 mated condition
- For shrink boot see part number 770-028
- Receptacle connector has RJ45 jack

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

## G6 PLUG WITH ACCESSORY THREADS

Plug Dimensions				
Shell Size	A Dia Max		B Dia	
	in	mm	in	mm
17	1.406	35.71	.928 .922	23.57 23.42
19	1.516	38.51	1.033 1.027	26.24 26.09





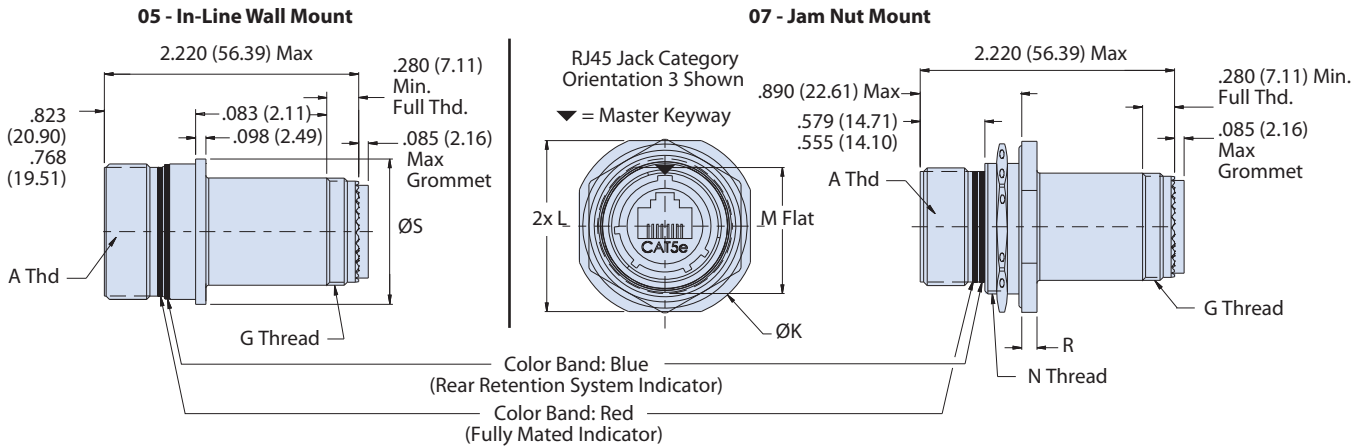
RJ45 CAT 5E ETHERNET

MIL-DTL-38999 Series III Type Connectors



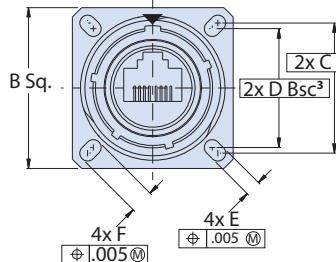
233-301 Plug and Receptacles with crimp removable contacts and accessory threads

**05 - INLINE AND 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH ACCESSORY THREADS**

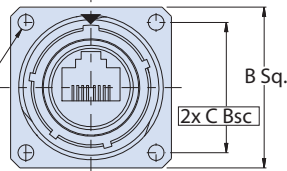


**00, D0 AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS**

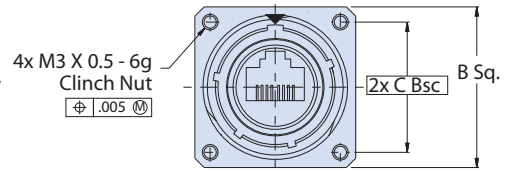
**00 - Wall Mount Receptacle with Slotted Holes (Mating Face)**



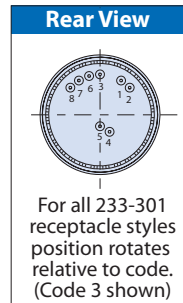
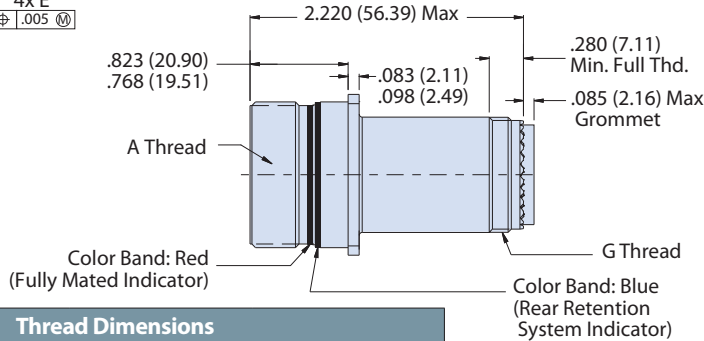
**D0 - Wall Mount Receptacle with Round Holes (Mating Face)**



**CM - Wall Mount Receptacle with Metric Clinch Nuts (Mating Face)**



**00, D0 and CM - Wall Mount Receptacle**



Thread Dimensions			
Shell Size	A Thread	G Thread	N Thread
17	1.1875-.1P-.3L-TS-2A	M25 x 1.0-6g 0.100R	M32 x 1.0-6g 0.100R
19	1.2500-.1P-.3L-TS-2A	M28x 1.0-6g 0.100R	M35 x 1.0-6g 0.100R

In-line and Jam Nut Receptacle Dimensions					
Shell Size	ØK	L	M	R	ØS
17	1.764 (44.81)	1.642 (41.71)	1.191 ( )	.122 (3.09)	1.275
	1.740 (44.20)	1.610 (40.89)	1.181 ( )	.083 (2.11)	(32.39)
19	1.949 (49.50)	1.827 (46.51)	1.316 ( )	.153 (3.89)	1.337
	1.925 (48.90)	1.795 (45.59)	1.305 ( )	.114 (2.90)	(33.96)

Wall Mount Receptacle Dimensions						
Shell Size	B Sq.	C Bsc	D Bsc³	E	F	Ø H Holes
17	1.323 (33.60)	1.062	.969	.136	.202	.136
	1.299 (32.99)	(26.97)	(24.61)	(3.45)	(5.13)	(3.45)
19	1.449 (36.80)	1.156	1.062	.120	.186	.120
	1.425 (36.20)	(29.36)	(26.97)	(3.05)	(4.72)	(3.05)



RJ45 CAT 5E ETHERNET

# MIL-DTL-38999 Series III Type Connectors



233-314 Plug and Receptacles with crimp removable contacts and integrated banding porch

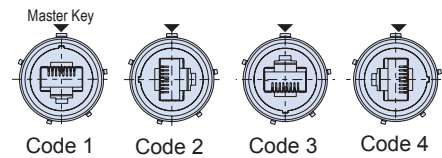
B

Part Number Development	
<b>Sample Part Number</b>	<b>233-314</b> <b>NF</b> <b>00</b> <b>G</b> <b>17</b> <b>5H</b> <b>N</b> <b>1</b> <b>T</b>
<b>Basic Number</b>	<b>233-314</b>
<b>Finish</b>	See Material and Finish table
<b>Connector Style</b>	See Connector Style table
<b>Insert-to-Shell Grounding</b>	- = Inline shielded RJ45 insert G = Shielded and grounded to shell <sup>2</sup>
<b>Shell Size</b>	<b>17</b> or <b>19</b>
<b>RJ45 Category</b>	<b>5H</b> = CAT 5e, high-temp. For Cat 6A applications consult factory
<b>Alternate Key Position<sup>1</sup></b>	Per MIL-DTL-38999 <b>A, B, C, D, E, N</b> = Normal
<b>RJ45 Orientation</b>	<b>1, 2, 3, or 4</b>
<b>Shrink Boot</b>	<b>T</b> = Part No. 770-028 (Omit for None)

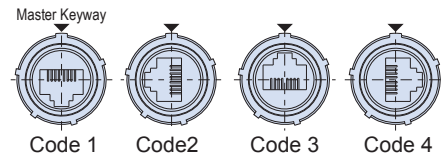
Connector Style <sup>1</sup>	
<b>00</b>	Wall mount receptacle with slotted holes
<b>05</b>	Inline Receptacle
<b>07</b>	rear panel mount, jam nut receptacle
<b>D0</b>	Wall mount receptacle with round holes
<b>CM</b>	Wall mount receptacle with metric clinch nuts
<b>G6</b>	plug

Material and Finish	
<b>NF</b>	Aluminum/Cadmium, Olive Drab
<b>ME</b>	Aluminum/Electroless Nickel
<b>MT</b>	Aluminum/Nickel PTFE
<b>ZR</b>	Aluminum/Black Zinc-Nickel

### RJ45 Orientation Options (Plug Face)



### RJ45 Orientation Options (Receptacle Face)



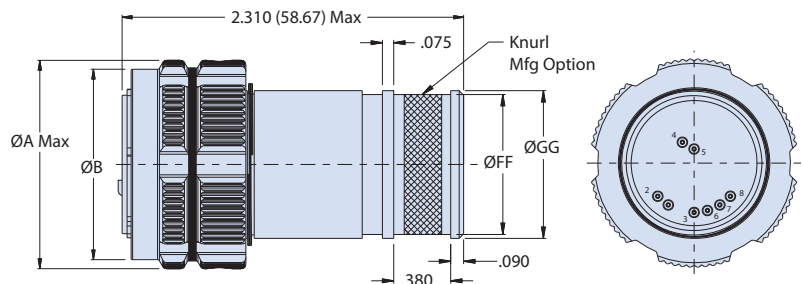
## NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- G option is inline shielded and grounded to shell, available for receptacle only
- Front panel mount only
- Crimp removable size 22 pin contacts (M39029/58-360) supplied loose
- Meets IP67 in unmated condition and IP68 mated condition
- For shrink boot see part number 770-028
- Receptacle connector has RJ45 jack

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

## G6 PLUG WITH BANDING PORCH

Plug Dimensions								
Shell Size	A Dia Max		B Dia		FF Dia		GG Dia	
	in	mm	in	mm	in	mm	in	mm
<b>17</b>	1.406	35.71	1.276	32.41	.945	24.00	.990	25.15
			1.268	32.21				
<b>19</b>	1.516	38.51	1.382	35.10	1.050	26.67	1.100	27.94
			1.374	34.90				





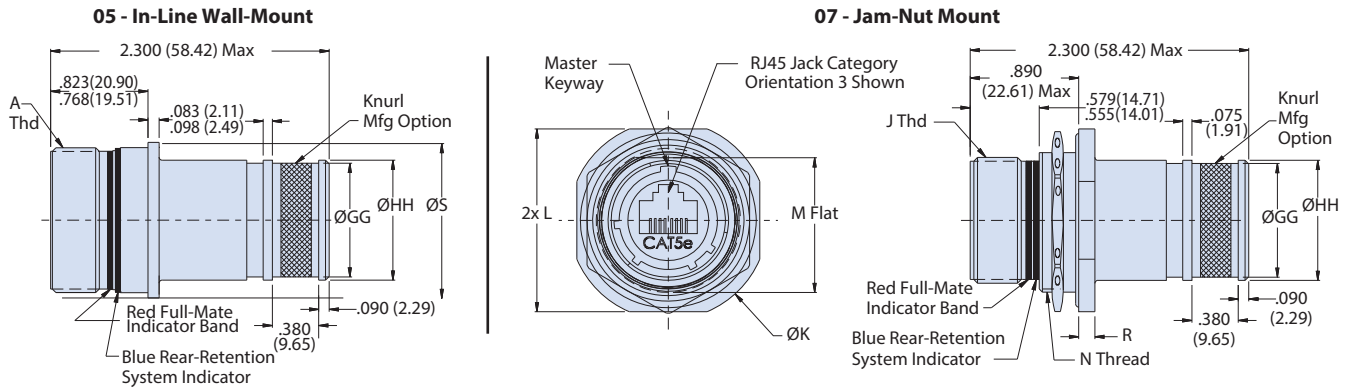
RJ45 CAT 5E ETHERNET

# MIL-DTL-38999 Series III Type Connectors



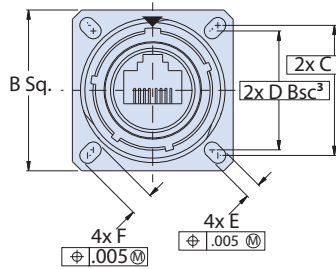
233-314 Plug and Receptacles with crimp removable contacts and integrated banding porch

## 05 - INLINE AND 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH BANDING PORCH

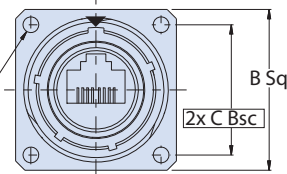


## 00, D0 AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS

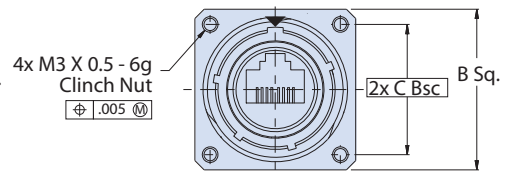
00 - Wall Mount Receptacle with Slotted Holes (Mating Face)



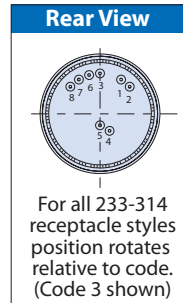
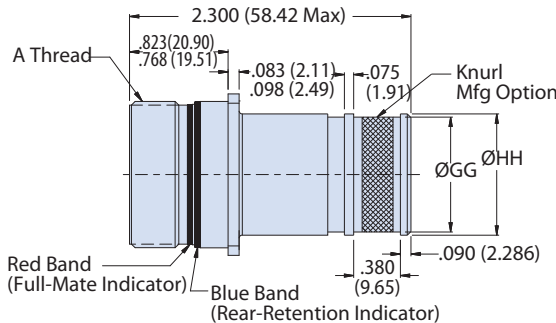
D0 - Wall Mount Receptacle with Round Holes (Mating Face)



CM - Wall Mount Receptacle with Metric Clinch Nuts (Mating Face)



00, D0 and CM - Wall Mount Receptacle



Wall Mount Receptacle Dimensions

Shell Size	B Sq	C Bsc	D Bsc <sup>3</sup>	E	F	ØGG	ØHH	Ø H Holes
17	1.323 (33.60)	1.062	.969	.136 (3.45)	.202 (5.13)	.960 (24.38)	1.022 (25.96)	.136 (3.45)
	1.299 (32.99)	(26.97)	(24.61)					
19	1.449 (36.80)	1.156	1.062	.120 (3.05)	.186 (4.72)	1.062 (26.97)	1.125 (28.58)	.120 (3.05)
	1.425 (36.20)	(29.36)	(26.97)					

In-line and Jam Nut Receptacle Dimensions

Shell Size	ØK	L	M Flat	R	ØS Max
17	1.764 (44.81)	1.642 (41.71)	1.191 (30.25)	.122 (3.09)	1.406 (35.71)
	1.740 (44.20)	1.610 (40.89)	1.181 (30.00)	.083 (2.11)	
19	1.949 (49.50)	1.827 (46.51)	1.316 (33.43)	.153 (3.89)	1.516 (38.51)
	1.925 (48.90)	1.795 (45.59)	1.305 (33.15)	.114 (2.90)	

Thread Dimensions

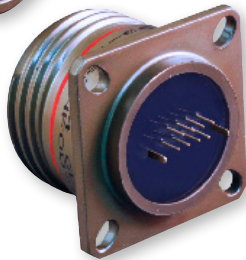
Shell Size	A and J Threads	N Thread
17	1.1875-.1P-.3L-TS-2A	M32 x 1.0-6g 0.100R
19	1.2500-.1P-.3L-TS-2A	M35 x 1.0-6g 0.100R



# RJ45 CAT 5E/6A ETHERNET MIL-DTL-38999 Series III Type Connectors 233-302 Receptacle with PC tails



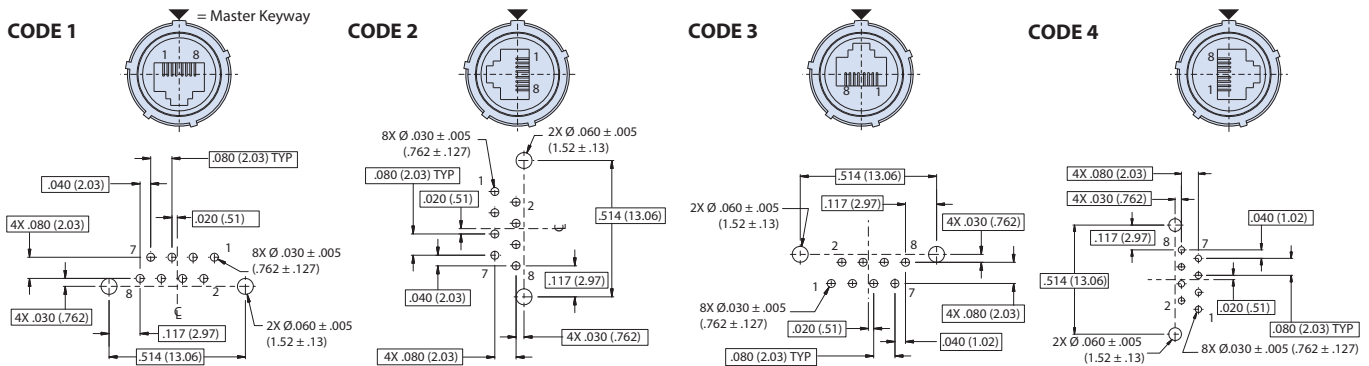
Receptacle front View



Receptacle rear View

Part Number Development								
Sample Part Number	<b>233-302</b>	NF	00	G	17	5H	N	1
Basic Number	<b>233-302</b>							
Finish	See Material and Finish table							
Connector Style <sup>1</sup>	See Connector Style table							
Insert-to-Shell Grounding	- = Inline shielded RJ45 insert G = Shielded and grounded to shell <sup>2</sup>							
Shell Size	<b>17</b> or <b>19</b>							
RJ45 Category	<b>5H</b> = CAT 5e For Cat 6A applications consult factory							
Alternate Key Position <sup>1</sup>	Per MIL-DTL-38999 <b>A, B, C, D, E, N</b> = Normal							
RJ45 Orientation	<b>1, 2, 3, or 4</b>							

## RJ45 ORIENTATION OPTIONS AND PCB LAYOUT



Connector Style <sup>1</sup>	
<b>00</b>	Wall mount receptacle with slotted holes
<b>07</b>	rear panel mount, jam nut receptacle
<b>D0</b>	Wall mount receptacle with round holes
<b>CM</b>	Wall mount receptacle with metric clinch nuts

Material and Finish	
<b>NF</b>	Aluminum/Cadmium, Olive Drab
<b>ME</b>	Aluminum/Electroless Nickel
<b>MT</b>	Aluminum/Nickel PTFE
<b>ZR</b>	Aluminum/Black Zinc-Nickel

Jam Nut Dimensions								
Shell Size	Dia K		L		M Flat		P	
	in	mm	in	mm	in	mm	in	mm
17	1.764	44.81	1.642	41.71	1.191	30.25	.090	2.29
	1.740	44.20	1.610	40.89	1.181	30.00	.080	2.03
19	1.949	49.50	1.827	46.41	1.316	33.43	.150	3.81
	1.925	48.90	1.795	45.59	1.306	33.17	.140	3.56

Wall Mount Receptacle Dimensions														
Shell Size	B Sq		C BSC		D BSC <sup>3</sup>		E		F		G1		Ø H Holes	
	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm
17	1.323	33.60	1.062	26.97	.969	24.61	.136	3.45	.202	5.13	.122	3.10	.083	2.11
	1.299	32.99	1.062	26.97	.969	24.61	.136	3.45	.202	5.13	.122	3.10	.083	2.11
19	1.449	36.80	1.156	29.36	1.062	26.97	.120	3.05	.186	4.72	.153	3.89	.114	2.90
	1.425	36.20	1.156	29.36	1.062	26.97	.120	3.05	.186	4.72	.153	3.89	.114	2.90

## NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- G option is inline shielded and grounded to shell, available for receptacle only
- Front panel mount only
- Meets IP67 in unmated condition, IP68 mated
- Receptacle connector has RJ45 jack





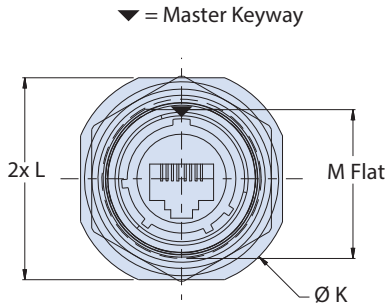
RJ45 CAT 5E/6A ETHERNET

# MIL-DTL-38999 Series III Type Connectors

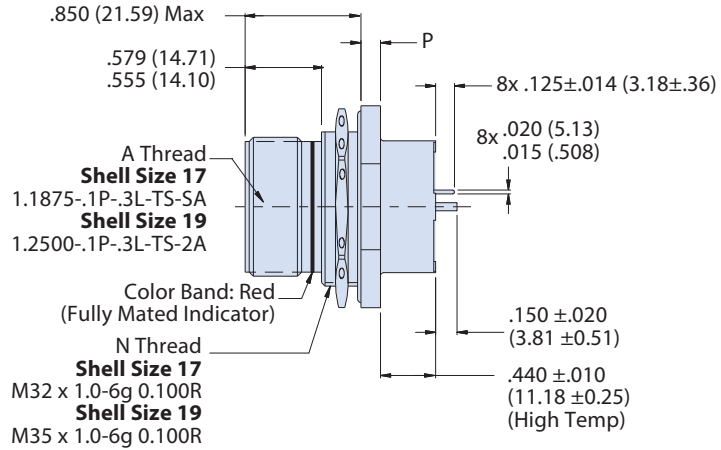


233-302 Receptacle with PC tails

## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE

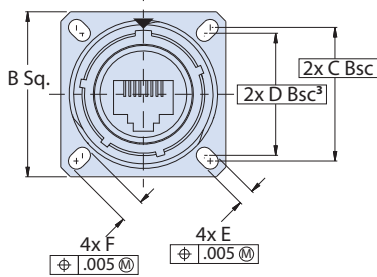


All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

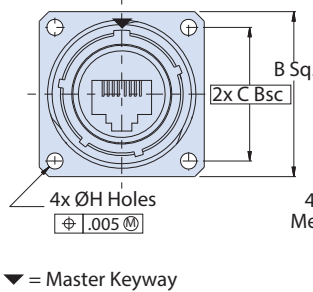


## 00, D0 AND CM - WALL MOUNT RECEPTACLES

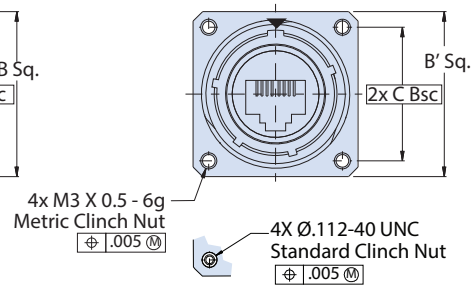
00 - Wall Mount Receptacle with Slotted Holes (Mating Face)



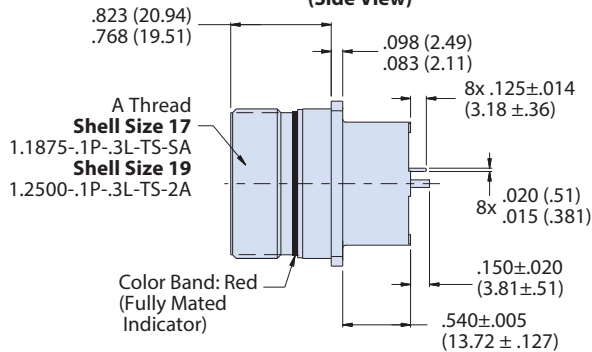
D0 - Wall Mount Receptacle with Round Holes (Mating Face)



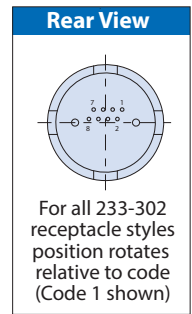
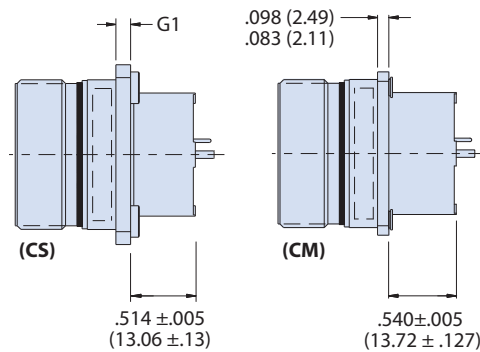
CM & CS - Wall Mount Receptacle with Metric/Std Clinch Nuts (Mating Face)



00 and D0 - Wall Mount Receptacle (Side View)



CS and CM - Wall Mount Receptacle (Side View)





# RJ45 CAT 5E/6A ETHERNET MIL-DTL-38999 Series III Type Connectors

## 233-303 Receptacle with solder cups



Receptacle front View

Receptacle rear View

Part Number Development								
Sample Part Number	233-303	NF	00	G	17	5H	N	1
Basic Number	233-303							
Finish	See Material and Finish table							
Connector Style <sup>1</sup>	See Connector Style table							
Insert-to-Shell Grounding	- = Inline shielded RJ45 insert G = Shielded and grounded to shell <sup>2</sup>							
Shell Size	17 or 19							
RJ45 Category	5H = CAT 5e For Cat 6A applications consult factory							
Alternate Key Position <sup>1</sup>	Per MIL-DTL-38999 A, B, C, D, E, N = Normal							
RJ45 Orientation	1, 2, 3, or 4							

### RJ45 ORIENTATION OPTIONS



Jam Nut Dimensions								
Shell Size	Ø J		K		L Flat		M	
	in	mm	in	mm	in	mm	in	mm
17	1.764	44.81	1.642	41.71	1.191	30.25	.122	3.10
	1.740	44.20	1.610	40.89	1.181	30.00	.083	2.11
19	1.949	49.50	1.827	46.41	1.316	33.43	.153	3.89
	1.925	48.90	1.795	45.59	1.306	33.17	.114	2.90

Material and Finish	
NF	Aluminum/Cadmium Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel

Connector Style	
00	Wall mount receptacle with slotted holes
07	rear panel mount, jam nut receptacle
D0	Wall mount receptacle with round holes
CM	Wall mount receptacle with metric clinch nuts

Wall Mount Receptacle Dimensions												
Shell Size	B Sq		C Bsc		D Bsc		E		F		Ø G Holes	
	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm
17	1.323	33.60	1.062	26.97	.969	24.61	.136	3.45	.202	5.13	0.136	3.45
	1.299	32.99										
19	1.449	36.80	1.156	29.36	1.062	26.97	.120	3.05	.186	4.72	0.120	3.05
	1.425	36.20										

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- G option is inline shielded and grounded to shell, available for receptacle only
- Front panel mount only
- Meets IP67 in unmated condition, IP68 mated
- Receptacle connector has RJ45 jack
- Materials and finishes
  - Shell, jam nut: Al alloy/optional
  - Seals: Silicone based elastomer
  - RJ45 coupler housing: UL94V-0 compliant ABS or PPS
  - Contacts: Copper alloy, gold plated
  - Hardware: Stainless steel/passivated



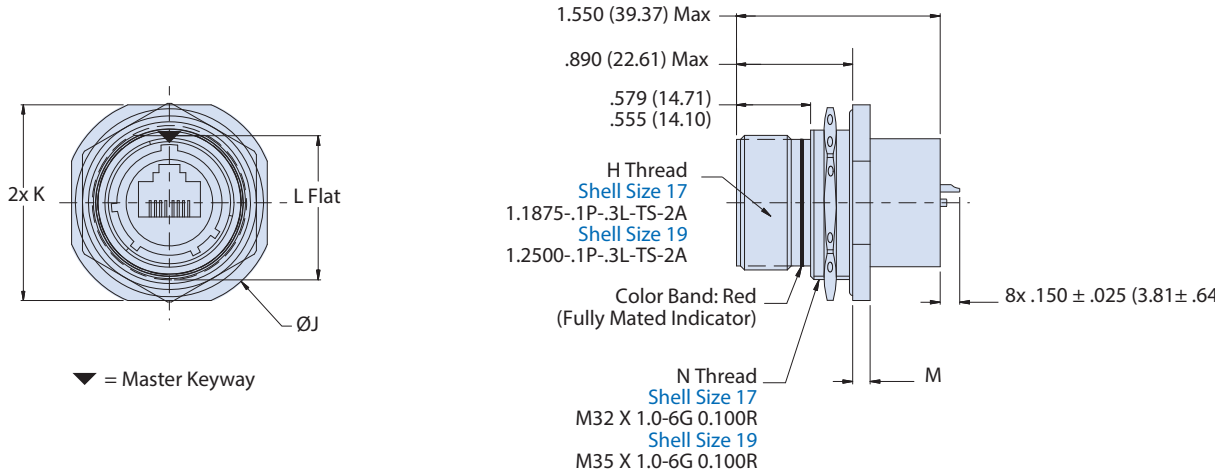
RJ45 CAT 5E/6A ETHERNET

MIL-DTL-38999 Series III Type Connectors



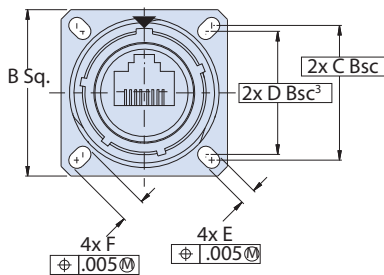
233-303 Receptacle with solder cups

**07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE**

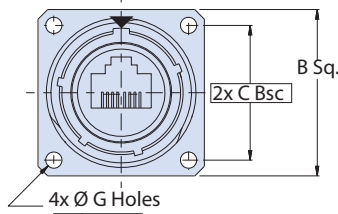


**00, D0 AND CM - WALL MOUNT RECEPTACLES**

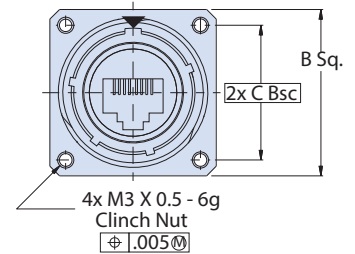
00 - Wall Mount Receptacle with Slotted Holes (Mating Face)



D0 - Wall Mount Receptacle with Round Holes (Mating Face)

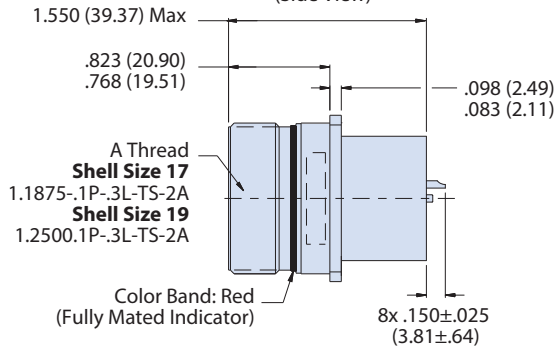


CM - Wall Mount Receptacle with Metric Clinch Nuts (Mating Face)

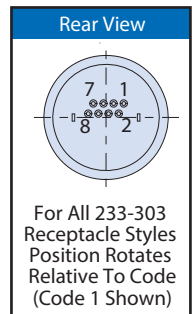
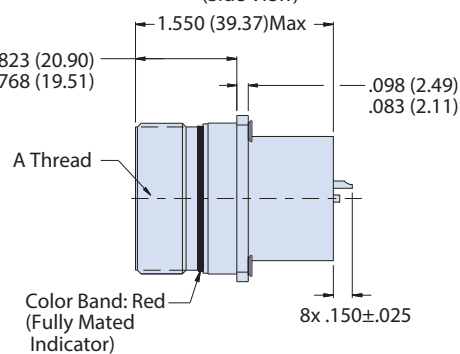


▼ = Master Keyway

00 and D0 - Wall Mount Receptacle (Side View)



00 and D0 - Wall Mount Receptacle (Side View)





# RJ45 CAT 5E ETHERNET MIL-DTL-38999 Series III Type Connectors



## 233-304 Plug and receptacle adapter with accessory thread

B

Part Number Development										
<b>Sample Part Number</b>	<b>233-304</b>	<b>NF</b>	<b>00</b>	<b>17</b>	<b>G</b>	<b>35</b>	<b>P</b>	<b>5H</b>	<b>N</b>	<b>T</b>
<b>Basic Number</b>	<b>233-304</b>									
<b>Finish</b>	See Material and Finish table									
<b>Connector Style<sup>1</sup></b>	See Connector Style table									
<b>Shell Size</b>	<b>17<sup>6</sup></b> consult factory for other shell sizes									
<b>Insert-to-Shell Grounding<sup>2</sup></b>	– = Inline shielded RJ45 insert <b>G</b> = Shielded and grounded to shell									
<b>Insert Arrangement</b>	Per MIL-STD-1560; <b>17-26</b> or <b>17-35<sup>6</sup></b>									
<b>Contact Style</b>	<b>P</b> = Pin <b>S</b> = Socket									
<b>RJ45 Category</b>	<b>5H</b> = CAT 5e For Cat 6A applications consult factory									
<b>Alternate Key Position<sup>1</sup></b>	Per MIL-DTL-38999 <b>A, B, C, D, E, N</b> = Normal									
<b>Shrink Boot</b>	<b>T</b> = Part No. 770-028 (Omit for None)									

### NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. G option is inline shielded and grounded to shell, available for receptacle only
3. Connector style 00 with slotted hole is front panel mount only
4. Meets IP67 in unmated condition, IP68 mated
5. Both plug and receptacle connectors have rear RJ45 jack
6. Consult factory for alternate insert arrangements

Material and Finish	
<b>NF</b>	Aluminum/Cadmium Olive Drab
<b>ME</b>	Aluminum/Electroless Nickel
<b>MT</b>	Aluminum/Nickel PTFE
<b>ZR</b>	Aluminum/Black Zinc-Nickel

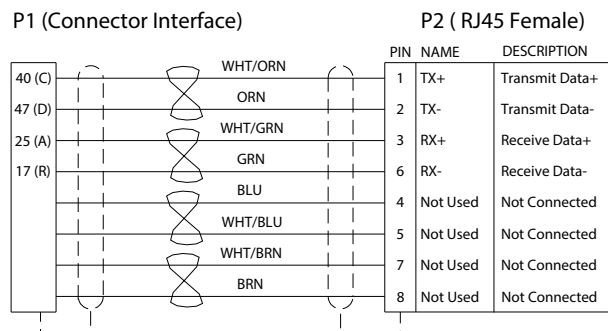
Connector Style <sup>1</sup>	
<b>00</b>	Wall mount receptacle with slotted holes <sup>3</sup>
<b>05</b>	Inline Receptacle
<b>07</b>	rear panel mount, jam nut receptacle
<b>D0</b>	Wall mount receptacle with round holes
<b>G6</b>	plug
<b>CM</b>	Wall mount receptacle with metric clinch nuts

Thread Dimensions			
Shell Size	A Thread	G Thread	N Thread
<b>17</b>	1.1875-.1P-.3L-TS-2A	M25 x 1.0-6g 0.100R	M32 x 1.0-6g 0.100R
<b>19</b>	1.2500-.1P-.3L-TS-2A	M28x 1.0-6g 0.100R	M35 x 1.0-6g 0.100R

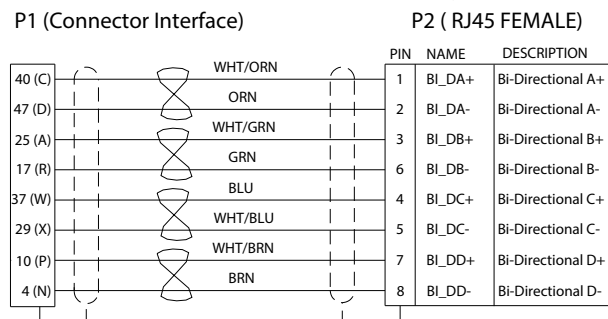
Wall Mount Receptacle Dimensions												
Shell Size	B Sq		C BSC		D BSC		E		F		Ø H Holes	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
<b>17</b>	1.323	33.60	1.062	26.97	.969	24.61	.136	3.45	.202	5.13	.136	3.45
	1.299	32.99										
<b>19</b>	1.449	36.80	1.156	29.36	1.062	26.97	.120	3.05	.186	4.72	.120	3.05
	1.425	36.20										

Jam Nut and Inline Dimensions										
Shell Size	Ø K		L		M Flat		R		S	
	in	mm	in	mm	in	mm	in	mm	in	mm
<b>17</b>	1.764	44.81	1.642	41.71	1.191	30.25	.122	3.10	1.406	35.71
	1.740	44.20								
<b>19</b>	1.949	49.50	1.827	46.41	1.316	33.43	.153	3.89	1.516	38.51
	1.925	48.90								

### Wiring Diagram for Ethernet 10base-T & 100 Base-TX 17-35 or (17-26 in parenthesis) Arrangement



### Wiring Diagram for Ethernet 1000base-T (Gigabit Ethernet) 17-35 or (17-26 in parenthesis) Arrangement



### Color Codes Per EIA/TIA 568B



RJ45 CAT 5E ETHERNET

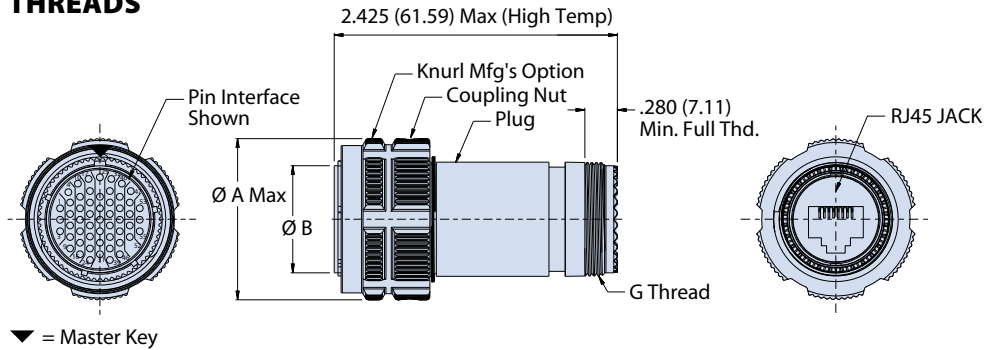
# MIL-DTL-38999 Series III Type Connectors



233-304 Plug and receptacle adapter with accessory thread

## G6 - PLUG WITH ACCESSORY THREADS

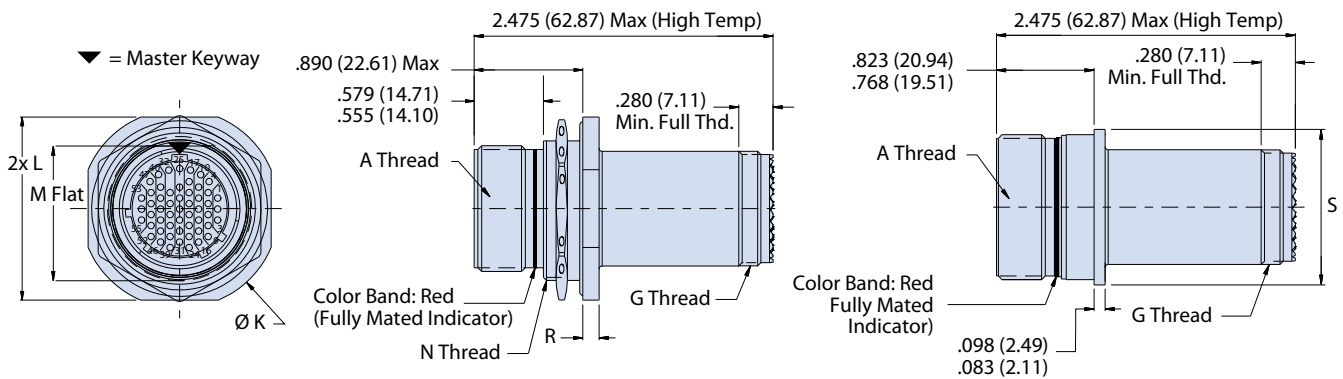
Plug Dimensions				
Shell Size	Ø A		Ø B	
	in	mm	in	mm
17	1.406	35.71	.928 .922	23.57 23.42
19	1.516	38.51	1.033 1.027	26.24 26.09



## 07 - REAR PANEL MOUNT, JAM NUT AND 05 - INLINE RECEPTACLE WITH ACCESSORY THREADS

Jam Nut Receptacle

Inline Receptacle (side view only)

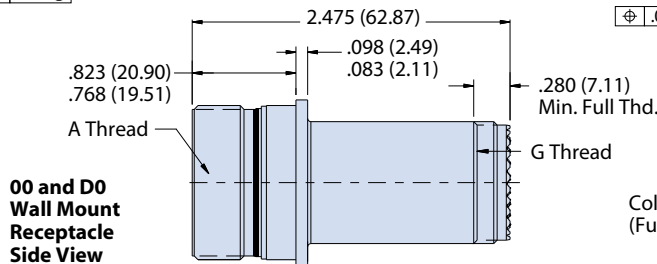
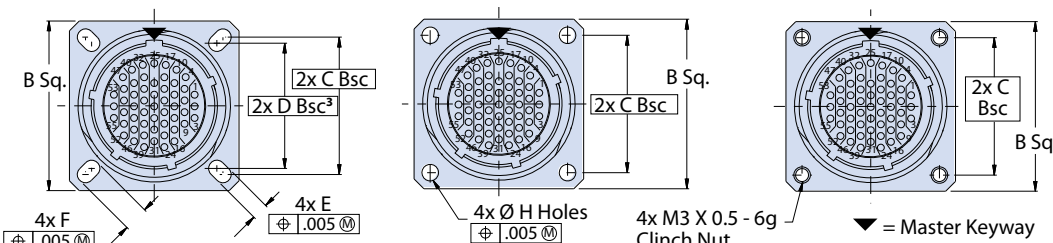


## 00, D0 AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS

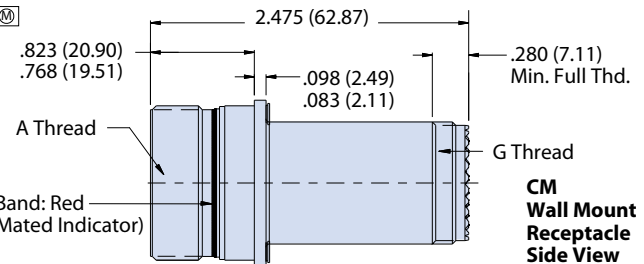
00 - Wall Mount Receptacle with Slotted Holes (Mating Face)

D0 - Wall Mount Receptacle With Round Holes (Mating Face)

CM - Wall Mount Receptacle With Metric Clinch Nuts (Mating Face)



00 and D0 Wall Mount Receptacle Side View



CM Wall Mount Receptacle Side View

All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.





RJ45 CAT 5E ETHERNET

# MIL-DTL-38999 Series III Type Connectors



233-305 Quadrax interface adapter  
with accessory threads

Receptacle front View



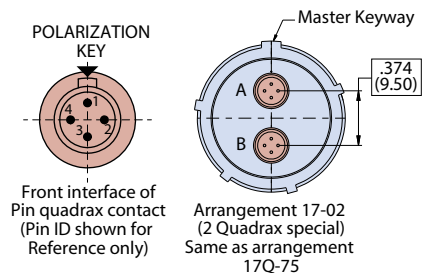
Receptacle rear View



Part Number Development									
Sample Part Number	233-305	NF	00	-	17	5H	P	N	T
Basic Number	233-305								
Finish	See Material and Finish table								
Connector Style	See Connector Style table								
Insert-to-Shell Grounding <sup>2</sup>	- = Inline shielded RJ45 insert G = Shielded and grounded to shell								
Shell Size	17 or 19								
RJ45 Category	5H = CAT 5e For Cat 6A applications consult factory								
Contact Style	P = Pin S = Socket								
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal; Per MIL-DTL-38999								
Shrink Boot	T = Part No. 770-028 (Omit for None)								

B

### Partial View Of Connector Quadrax Interface



Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel

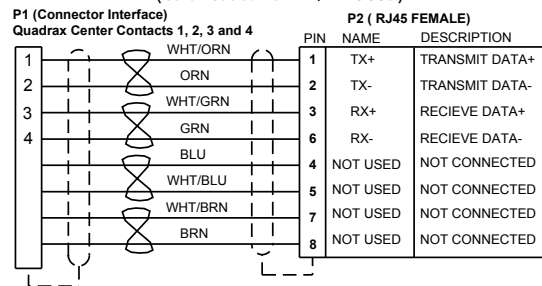
Connector Style	
05	Inline Receptacle
07	rear panel mount, jam nut receptacle
00	Wall mount receptacle with slotted holes
D0	Wall mount receptacle with round holes
CM	Wall mount receptacle with metric clinch nuts
G6	plug

Jam Nut Dimensions					
Shell Size	Ø K	L	M Flat	R	Ø S
17	1.764 (44.81)	1.642 (41.71)	1.191 (30.25)	.122 (3.10)	1.275 (32.39)
	1.740 (44.20)	1.610 (40.89)	1.181 (30.00)	.083 (2.11)	
19	1.949 (49.50)	1.827 (46.41)	1.316 (33.43)	.153 (3.89)	1.337 (33.96)
	1.925 (48.90)	1.795 (45.59)	1.306 (33.17)	.114 (2.90)	

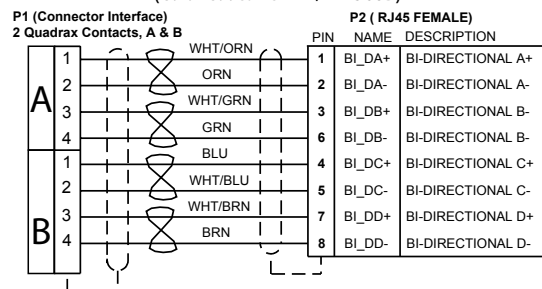
### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- G option is inline shielded and grounded to shell, available for receptacle only
- Pin contact mates with P/N 854-002 Socket contact mates with P/N 854-001
- Connector style 00 with slotted hole is front panel mount only
- Meets IP67 in unmated condition, IP68 mated
- Both plug and receptacle connectors have rear RJ45 jack

### Wiring Diagram for Ethernet 10base-T & 100 Base-TX (Color Codes Per EIA/TIA 568B)



### Wiring Diagram for Ethernet 1000base-T (Gigabit Ethernet) (Color Codes Per EIA/TIA 568B)



Thread Dimensions			
Shell Size	A Thread	G Thread	N Thread
17	1.1875-.1P-.3L-TS-2A	M25 x 1.0-6g 0.100R	M32 x 1.0-6g 0.100R
19	1.2500-.1P-.3L-TS-2A	M28 x 1.0-6g 0.100R	M35 x 1.0-6g 0.100R

Wall Mount Receptacle Dimensions						
Shell Size	B Sq	C BSC	D BSC	E	F	Ø H Holes
17	1.323 (33.60)	1.062 (26.97)	.969 (24.61)	.136 (3.45)	.202 (5.13)	.136 (3.45)
	1.299 (32.99)					
19	1.449 (36.80)	1.156 (29.36)	1.062 (26.97)	.120 (3.05)	.186 (4.72)	.120 (3.05)
	1.425 (36.20)					



RJ45 CAT 5E ETHERNET

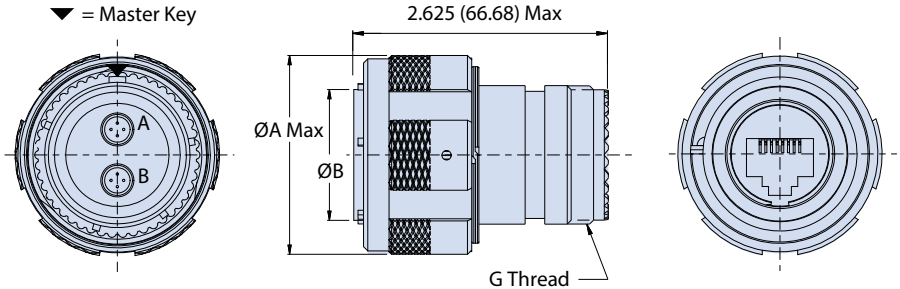
# MIL-DTL-38999 Series III Type Connectors



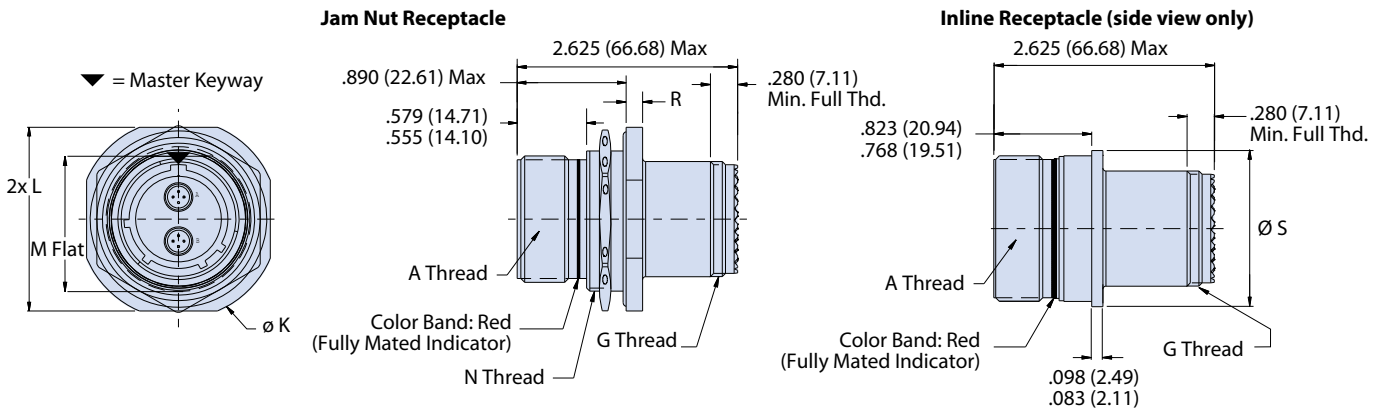
233-305 Quadrax interface adapter  
with accessory threads

## G6 - PLUG WITH ACCESSORY THREADS

Plug Dimensions				
Shell Size	Ø A		Ø B	
	in	mm	in	mm
17	1.406	35.71	.928	23.57
			.922	23.42
19	1.516	38.51	1.033	26.24
			1.027	26.09

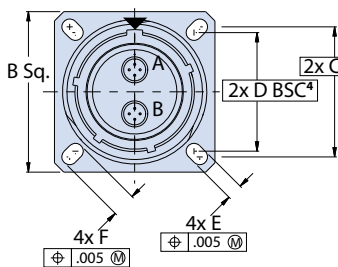


## 07 - REAR PANEL MOUNT, JAM NUT AND 05 - INLINE RECEPTACLE WITH ACCESSORY THREADS

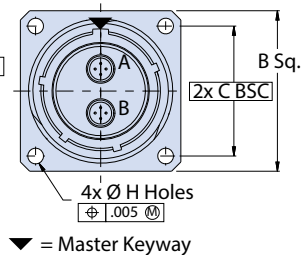


## 00, D0 AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS

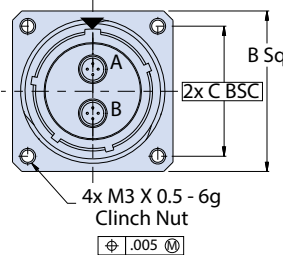
00 - Wall Mount Receptacle with Slotted Holes (Mating Face)



D0 - Wall Mount Receptacle With Round Holes (Mating Face)

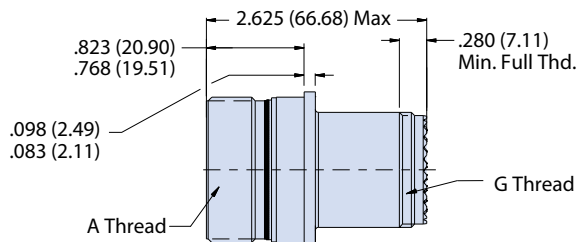


CM - Wall Mount Receptacle With Metric Clinch Nuts (Mating Face)

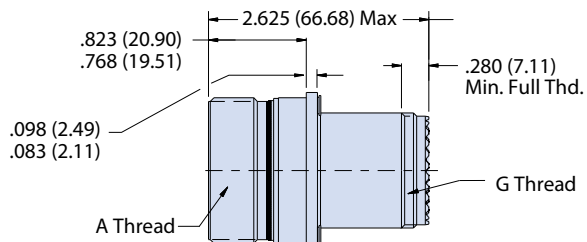


All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

00 and D0 - Wall Mount Receptacle



CM - Wall Mount Receptacle





RJ45 CAT 5E/6A ETHERNET

MIL-DTL-38999 Series III Type Connectors



233-330 Feed-through receptacle connector



Receptacle front View

Part Number Development							
Sample Part Number	233-330	NF	00	-17	5H	N	1
Basic Number	233-330						
Finish	See Material and Finish table						
Connector Style <sup>1</sup>	See Connector Style table						
Shell Size	17 or 19						
RJ45 Category	5H = CAT 5e 6A = CAT 6A						
Alternate Key Position <sup>1</sup>	Per MIL-DTL-38999 A, B, C, D, E, N = Normal						
RJ45 Orientation	1, 2, 3, or 4						

Material and Finish

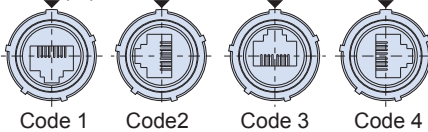
NF	Aluminum/Cadmium Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel

Connector Style<sup>1</sup>

00	Wall mount receptacle with slotted hole <sup>2</sup>
07	Jam nut, rear panel mount receptacle
DO	Wall mount receptacle with round holes
CM	Wall mount receptacle with metric clinch nuts

RJ45 Orientation Options (Receptacle Face)

Master Keyway



Jam Nut Dimensions

Shell Size	Ø K		L		M Flat		R	
	in	mm	in	mm	in	mm	in	mm
17	1.764	44.81	1.642	41.71	1.191	30.25	.122	3.10
	1.740	44.20	1.610	40.89	1.181	30.00	.083	2.11
19	1.949	49.50	1.827	46.41	1.316	33.43	.153	3.89
	1.925	48.90	1.795	45.59	1.306	33.17	.114	2.90

Wall Mount Receptacle Dimensions

Shell Size	B Sq		C Bsc		D Bsc <sup>2</sup>		E		F		Ø H Holes	
	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm
17	1.323	33.60	1.062	26.97	.969	24.61	.136	3.45	.202	5.13	0.136	3.45
	1.299	32.99										
19	1.449	36.80	1.156	29.36	1.062	26.97	.120	3.05	.186	4.72	0.120	3.05
	1.425	36.20										

NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. front panel mount only
3. Meets IP67 in unmated condition, IP68 mated
4. Feed-thru receptacle is jack-to-jack configuration

All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.





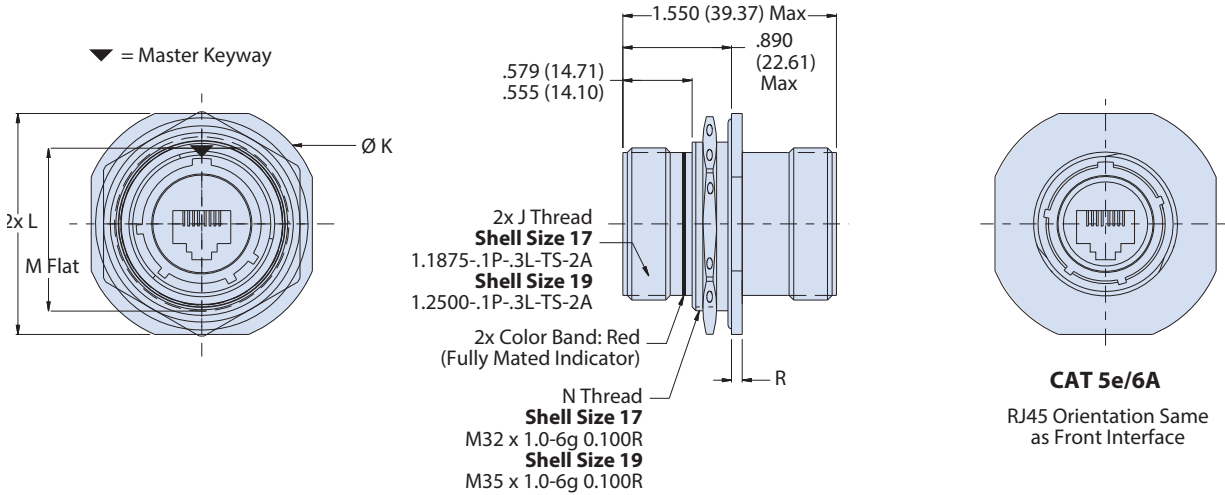
RJ45 CAT 5E/6A ETHERNET

MIL-DTL-38999 Series III Type Connectors

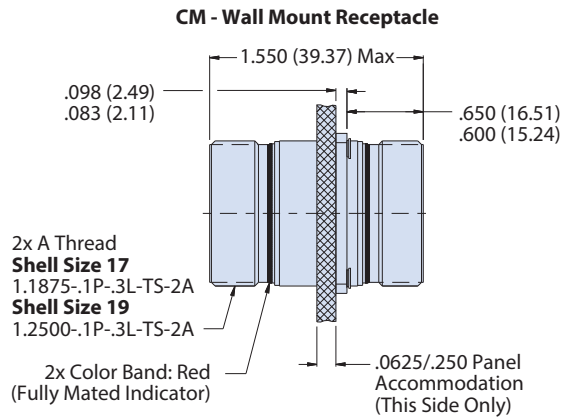
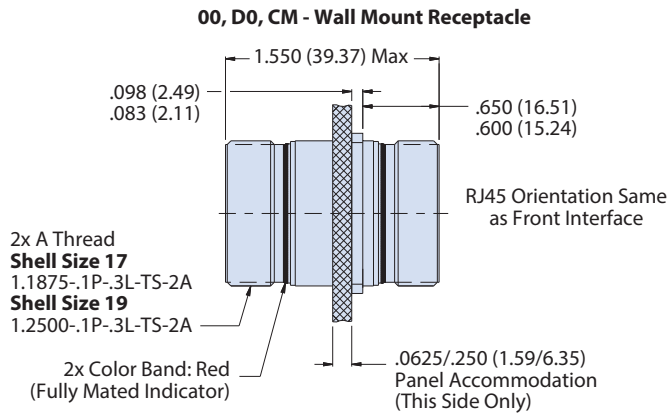
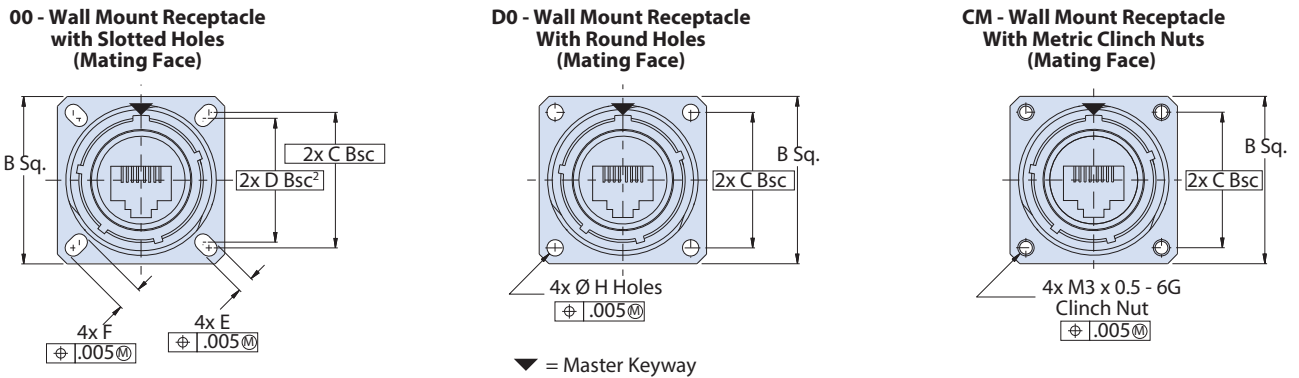


233-330 Feed-through receptacle connector

**07 - REAR PANEL MOUNT, JAM NUT FEED-THROUGH RECEPTACLE**



**00, D0 AND CM - WALL MOUNT FEED-THRU RECEPTACLES**





RJ45 CAT 5E ETHERNET

MIL-DTL-38999 Series III Type Connectors



CAT 5e cable assemblies

B



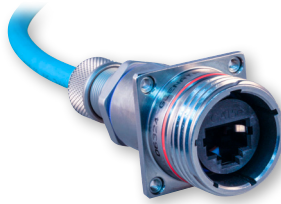
**2330-0003 Glenair SuperNine RJ45 CAT 5e cable jumpers, SuperSeal to standard RJ45**

SuperSeal RJ45 connectors are IP67 open face rated and IP68 in the mated condition for complete protection in harsh environments. SuperSeal connector styles include plug, wall mount and jam-nut receptacles. Wall mount receptacles are available with slotted holes, round holes and metric clinch nuts. All SuperSeal shells offer inline shielding and receptacle shells offer optional shell grounding. Any shell can be ordered with straight or right angle cable exit. RJ45 jack can be ordered in 1 of 4 available orientations to provide further security against mis-mating and accommodate existing RJ45 orientations. RJ45 connector end may be ordered as plug, jack or with flying leads in straight or right angle configurations. Maximum overall length is 100 feet. Consult factory for ordering information.

**AVAILABLE INTERFACE OPTIONS**



**Plug**



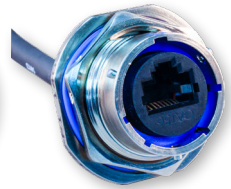
**Wall mount receptacle with metric clinch nuts**



**Wall Mount Receptacle with round holes**



**Wall Mount Receptacle with round holes**



**Jam-nut mount Receptacle**



**CAT 5E PLUG OPTIONS**



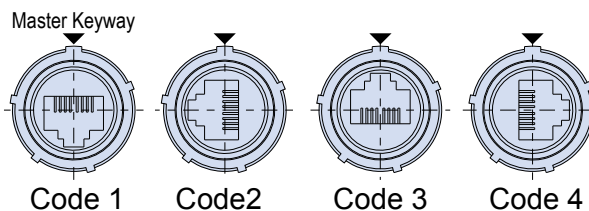
**CAT 5e, Straight**



**CAT 5e, 45°**

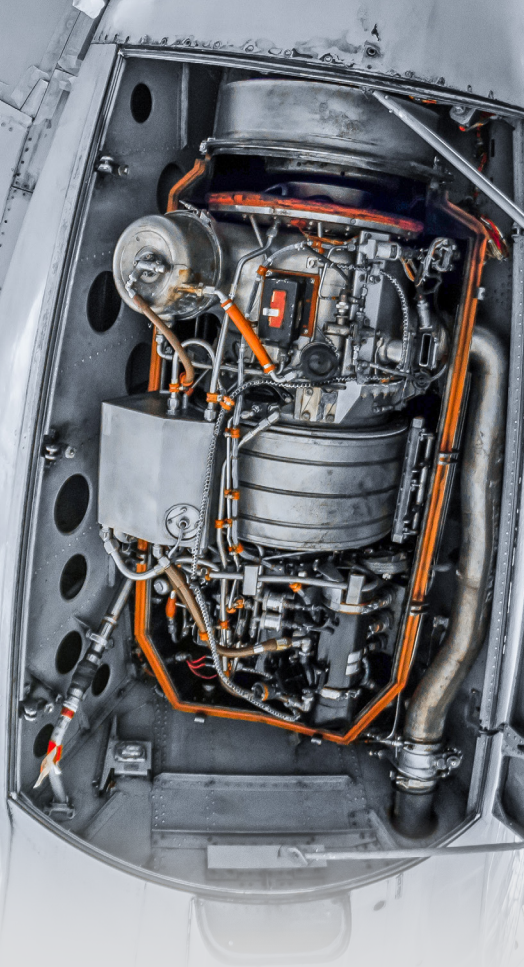


**RJ45 ORIENTATION OPTIONS**





MIL-DTL-38999  
TYPE HERMETIC  
RJ45 ETHERNET  
CONNECTOR



# SUPERSEAL™ Glass-sealed Hermetic RJ45 Connectors



## Helium Leak Testing

Series 23 SuperSeal hermetic connectors are 100% tested prior to shipment. A helium leak test is performed to certify the hermetic seal. This test is conducted by inducing 1ATM of vacuum on one side of the connector. Helium gas is released on the other side, and a mass spectrometer “counts” the number of helium molecules that penetrate the connector seal. Helium leak testing takes advantage of the small size of a helium molecule compared to air or water vapor. Helium is inert, rare in our atmosphere, and is easy to detect with a mass spectrometer. Series 806 hermetic connectors are designed specifically for commercial and military aircraft zones such as engine compartments. These areas are typically exposed to fuel, oil and changes in elevation. Such conditions present the need to protect sensitive electronic equipment from the effects of caustic chemicals and moisture ingress through standard environmental connectors where high pressure leads to sealing failure. Other aircraft locations such as the fuselage require hermetic connectors to maintain passenger cabin pressure while allowing for data transmission through separated compartments of the aircraft.

*Prevents damage from  
moisture ingress and  
caustic chemicals*

- Cat 5e and 6A
- $1 \times 10^{-7}$  sccHe/sec @ 1 Atmosphere Differential
- Superior performance
- D38999 Series III type
- SuperSeal™ signature sealing and grounding



RJ45 CAT 5E/6A ETHERNET

# MIL-DTL-38999 Series III Type Connectors



## 233-309 Hermetic RJ45 Feed-thru Connector with Crimp Removable Contacts

Material and Finish	
Z1	Stainless Steel/Passivate
ZL	Stainless Steel/Electro-deposited Nickel

Connector Style <sup>1</sup>	
00	Wall mount receptacle with slotted hole <sup>2</sup>
07	Jam nut, rear panel mount receptacle
D0	Wall mount receptacle with round holes
CM	Wall mount receptacle with metric clinch nuts

### NOTES

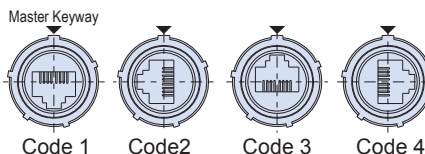
- See Section A for alternate key/keyway positions and panel cutout dimensions
- Front panel mount only
- Meets IP67 in unmated condition, IP68 mated
- Connector and contacts shall meet general requirements of MIL-DTL-38999, Series III. RJ45 connector meets TIA 568B standard.
- RJ45 Jack Specifications:
  - Shielded Cat5e RJ45 (grounded to PC board)
  - Wiring: straight through
  - RoHS compliant
  - Electrical: current rating: 1.5 Amp
  - D.W.V.: 1000 VDC (700 VAC)
  - Operating temperature range: -40°C to +120°C
- Hermeticity: <math>1 \times 10^{-7}</math> sccHe/sec @ 1 atmosphere differential
- Material/finishes:
  - Shell, jam nut: 300 series cres / passivate or plate
  - Insulator, hermetic: glass
  - Insulators: high grade rigid dielectric
  - Contacts: copper alloy/gold plate
  - Seals: fluorosilicone
  - RJ45 coupler housing: ULV94V-0 compliant ABS or PPS

Part Number Development							
Sample Part Number	233-309	Z1	00	-	17	5H	N 1
Basic Number	233-309						
Finish	See Material and Finish table						
Connector Style <sup>1</sup>	See Connector Style table						
Shielding	- = Inline shielded RJ45 G = Inline shielded and grounded to the shells						
Shell Size	17 and 19						
RJ45 Category	5H = CAT 5e						
Alternate Key Position <sup>1</sup>	Per MIL-DTL-38999 A, B, C, D, E, N = Normal						
RJ45 Orientation	1, 2, 3, or 4						

Jam Nut Dimensions								
Shell Size	Ø K		L		M Flat		R	
	in	mm	in	mm	in	mm	in	mm
17	1.764	44.81	1.642	41.71	1.191	30.25	.122	3.10
	1.740	44.20	1.610	40.89	1.181	30.00	.083	2.11
19	1.949	49.50	1.827	46.41	1.316	33.43	.153	3.89
	1.925	48.90	1.795	45.59	1.306	33.17	.114	2.90

Wall Mount Receptacle Dimensions												
Shell Size	B Sq		C Bsc		D Bsc <sup>2</sup>		E		F		Ø H Holes	
	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm
17	1.323	33.60	1.062	26.97	.969	24.61	.136	3.45	.202	5.13	0.136	3.45
	1.299	32.99										
19	1.449	36.80	1.156	29.36	1.062	26.97	.120	3.05	.186	4.72	0.120	3.05
	1.425	36.20										

### RJ45 Orientation Options (Receptacle Face)



*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

Jam Nut and Wall Mount Thread Dimensions			
Shell Size	A Thread	G Thread	N Thread (Jam-Nut Only)
17	1.1875-.1P-.3L-TS-2A	M25 x 1.0-6g 0.100R	M32 x 1.0-6g 0.100R
19	1.2500-.1P-.3L-TS-2A	M28x 1.0-6g 0.100R	M35 x 1.0-6g 0.100R

Jam Nut Dimensions					
Shell Size	Ø K	L	M Flat	R	Ø S
17	1.764 (44.81)	1.642 (41.71)	1.191 (30.25)	.122 (3.10)	1.275 (32.39)
	1.740 (44.20)	1.610 (40.89)	1.181 (30.00)	.083 (2.11)	
19	1.949 (49.50)	1.827 (46.41)	1.316 (33.43)	.153 (3.89)	1.337 (33.96)
	1.925 (48.90)	1.795 (45.59)	1.306 (33.17)	.114 (2.90)	

Wall Mount Receptacle Dimensions						
Shell Size	B Sq	C BSC	D BSC	E	F	Ø H Holes
17	1.323 (33.60)	1.062 (26.97)	.969 (24.61)	.136 (3.45)	.202 (5.13)	.136 (3.45)
	1.299 (32.99)					
19	1.449 (36.80)	1.156 (29.36)	1.062 (26.97)	.120 (3.05)	.186 (4.72)	.120 (3.05)
	1.425 (36.20)					



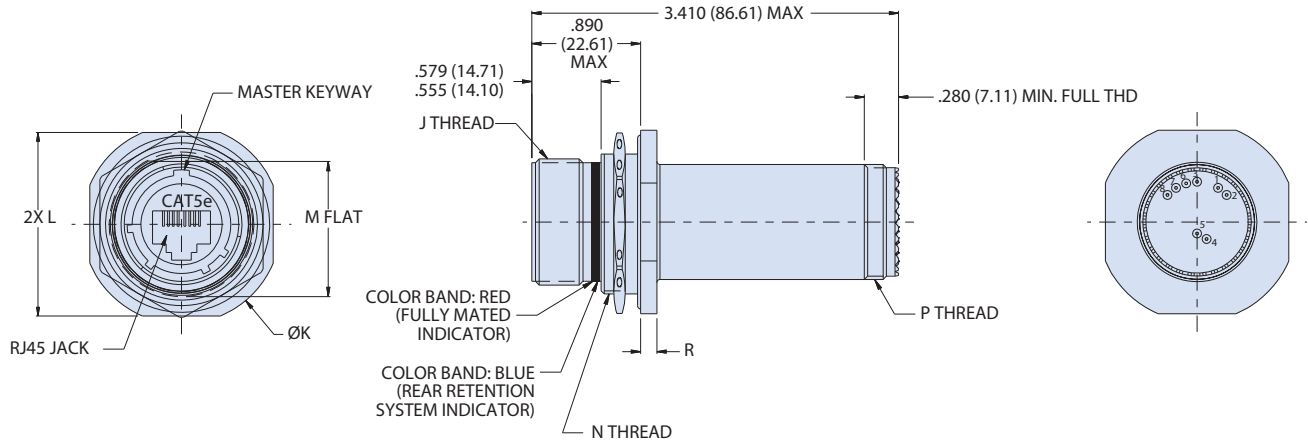
RJ45 CAT 5E/6A ETHERNET

MIL-DTL-38999 Series III Type Connectors



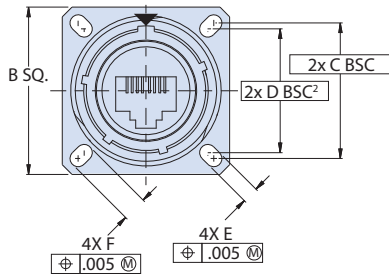
233-309 Hermetic RJ45 Feed-thru Connector with Crimp Removable Contacts

**07 - REAR PANEL MOUNT, JAM NUT FEED-THROUGH CONNECTORS**

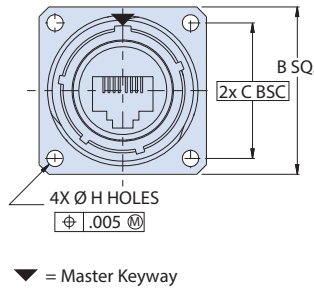


**00, D0 AND CM - WALL MOUNT FEED-THRU CONNECTORS**

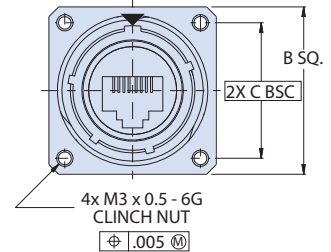
**00 - Wall Mount Receptacle with Slotted Holes (Mating Face)**



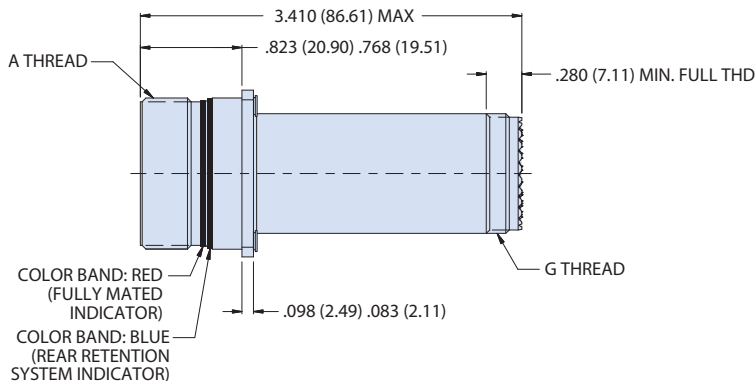
**D0 - Wall Mount Receptacle With Round Holes (Mating Face)**



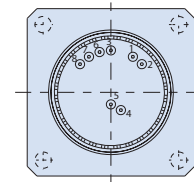
**CM - Wall Mount Receptacle With Metric Clinch Nuts (Mating Face)**



**00, D0, CM - Wall Mount Receptacle**



**D0 - Wall Mount Receptacle Shown for Contact Termination Positions Only**



MIL-DTL-38999 TYPE  
TVS FIELD-READY  
RJ45 ETHERNET

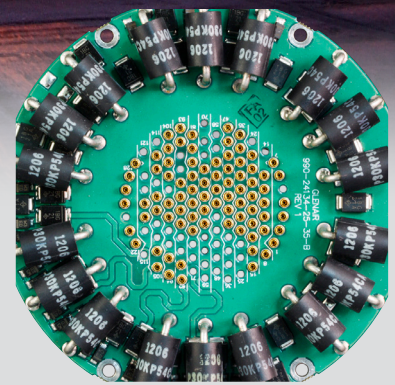


FILTER  
**EMI EMP**  
CONNECTORS

**SUPERSEAL™**

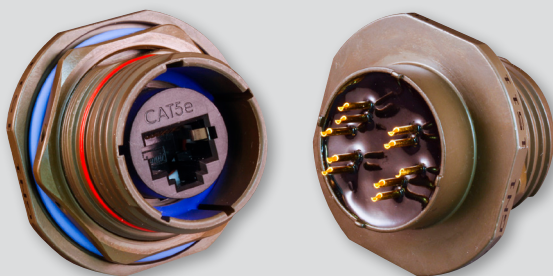
# Transient Voltage Suppression (TVS) RJ45 Connectors

**T**ransient Voltage Suppression (TVS) technologies are designed to shunt voltage transients directly to ground before such surges can damage sensitive electronic equipment. Individual TVS diodes as well as diode modules are incorporated directly into the TVS filter connector package to provide optimal protection for either individual contacts or groups of contacts without significant increases in connector size or weight. RTCA DO-160 and other electrical performance standards define acceptable benchmarks for withstanding electromagnetic pulse, lightning strike, or other induced voltage surges in high-reliability systems. For high-speed signals, care must be taken in selecting diodes to minimize capacitance loading effects which can lead to signal loss. Glenair SuperSeal™ TVS-equipped RJ45 connectors have been engineered to transmit high-speed signals while providing indirect lightning strike protection in accordance with the RTCA DO-160 standard.



*Prevents Catastrophic  
EMP Failure in  
Military and  
Commercial Aircraft*

- **Electromagnetic pulse (EMP) protection**
- **Lightning protection**
- **Saves weight and space**
- **Superior performance**
- **D38999 Series III type**
- **SuperSeal™ signature sealing and grounding**



MIL-DTL-38999 type  
Series III SuperNine  
RJ45 receptacles  
with transient  
voltage suppression  
technology



# RJ45 CAT 5E ETHERNET RJ45 CAT 5e TVS connectors



## TVS diode performance specifications and power selection

B

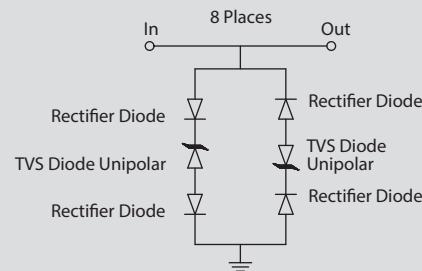
MIL-DTL-38999 Series III, TVS Diode, RJ45 CAT 5e and 6A Performance Specifications	
Material and Finish	
<b>Shell/coupling Plating</b>	Complete list of options available in the Material and Finish Options portion of this section
<b>Contacts</b>	PC tails or solder cup: copper alloy, gold plated
<b>RJ45 coupler housing</b>	UL94V-0 compliant ABS or PPS
<b>Seals</b>	Fluorosilicone
<b>Shell Sizes</b>	17 and 19
Environmental / Mechanical Performance	
<b>Sealing</b>	IP68 mated condition, IP67 unmated condition
<b>Outgassing</b>	Mod Code 186S* Mod Code 928**
<b>Operating Temperature</b>	-20°C to +85°C
<b>Vibration</b>	20g's, 3 Axis, 10 - 2000Hz
<b>Mechanical Shock</b>	300 g's
<b>Backshell Interface</b>	MIL-DTL-38999 Designator H
<b>Mating Cycles</b>	500

\* Meets outgassing requirements per ASTM E 595 and meets NASA screening requirements for level 1 highest reliability  
\*\* Meets outgassing requirements per UL 94 V-0

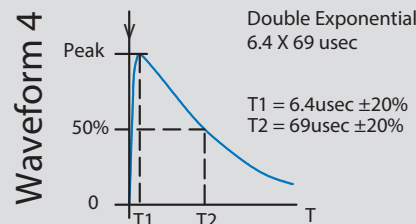
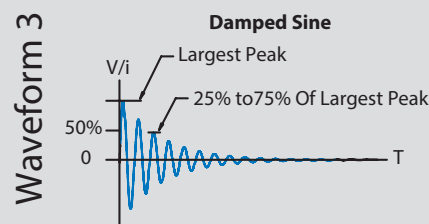
MIL-DTL-38999 Series III, TVS Diode, RJ45 CAT 5e and 6A Performance Specifications	
RJ45 Cat 6A & 5e Electrical Specifications	
<b>Voltage Rating</b>	1000 Volts, Cat 5e
<b>Data Rate</b>	10BASE-T, 100BASE-TX, 1000BASE-T/1000BASE-TX
<b>Current Rating</b>	1.5 Amps, Cat 5e
<b>D.W.V.</b>	1000 VDC (700 VAC)
<b>Frequency</b>	100 MHz, Cat 5e
<b>Wiring</b>	Straight through
<b>Cabling Length</b>	100 Meters Max
<b>Shield Continuity</b>	Continuous Through Coupler and Grounded to the Shell

MIL-DTL-38999 Series III, TVS Diode, RJ45 CAT 5e and 6A Performance Specifications	
TVS Electrical Specifications	
Each signal line has TVS diode protection per the electrical schematic in figure 1.	
<b>Peak pulse power (tp = 8/20us)</b>	600w
<b>Rated standoff voltage</b>	2.8V
<b>Minimum breakdown voltage</b>	3.0V @ 1mA
<b>Max clamping voltage (@ Ipp = 2A)</b>	5.5V
<b>Max clamping voltage (@ Ipp = 5A)</b>	8.5V
<b>Max clamping voltage (@ Ipp = 30A)</b>	21.0V
<b>Max leakage current</b>	2.0uA max @ 2.8V
<b>Typical junction capacitance</b>	10pF @ 0v, 1Mhz
<b>Polarity</b>	bipolar
<b>Compatible with IEC 61000-4-2 (ESD)</b>	air - 15kv, contact - 8kv
<b>Compatible with IEC 61000-4-4 (EFT)</b>	40A - 5/50ns
<b>Compatible with IEC 61000-4-5 (surge)</b>	24A, 8/20us - level 2 (line-gnd) & level 3 (line-line)

FIGURE 1



RTCA DO-160 Indirect Lightning Waveshet A Waveforms		
RTCA DO-160 Waveform	Level	Open Circuit Voltage/ Short Circuit Voltage V/A
Waveform 3	1	100/4
	2	250/10
Waveform 4	1	50/10
	2	125/25



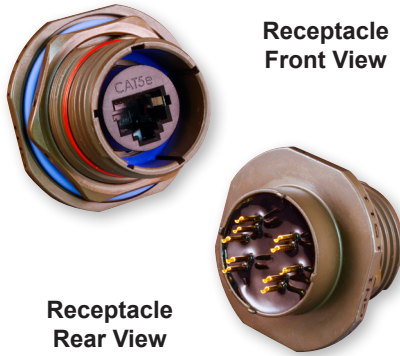
Meets indirect lightning strike requirements per DO-160, section 222 pin injection waveform set A2.



# RJ45 CAT 5E ETHERNET RJ45 CAT 5e TVS connectors



244-001 Jam-nut receptacle, PC tail or solder cup  
MIL-DTL-38999 Series III Type Connectors



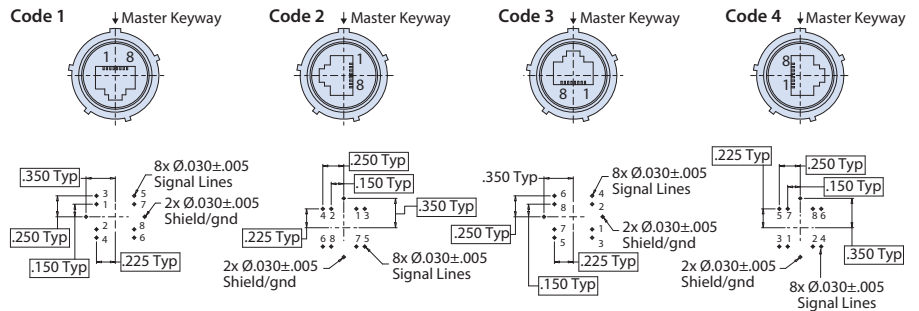
Receptacle  
Front View

Receptacle  
Rear View

Part Number Development							
Sample Part Number	244-001	NF	19	P	G	N	1
Basic Number	244-001 with stand-offs						
Finish	See Material and Finish Table						
Shell Size	17 or 19						
Termination	P = PC tail S = Solder cup						
Insert-to-Shell Grounding	G = Shielded and grounded to shell						
Alternate Key Position <sup>1</sup>	Per MIL-DTL-38999 A, B, C, D, E, N = Normal <sup>2</sup>						
RJ45 Orientation	1, 2, 3, or 4						

Material and Finish	
NF	Aluminum/Cadmium Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel

## RJ45 ORIENTATION CODE AND PCB LAYOUT (PCB LAYOUT FOR PCTAIL VERSION)

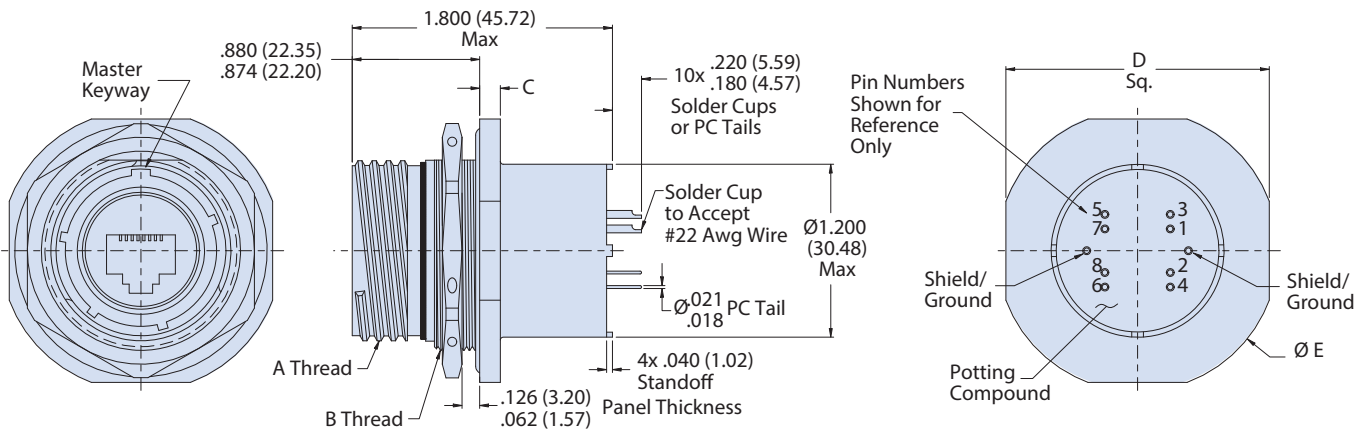


### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- See page B-24 for diode values

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

Jam Nut Dimensions												
Shell Size	A Thread	B Thread	C		D Sq.		Ø E		Ø F		G Flat	
			in	mm	in	mm	in	mm	in	mm	in	mm
17	1.1875-.1P-.3L-TS-2A	M32 x 1.0-6g 0.100R	.122 .083	3.10 2.11	1.642 1.610	41.71 40.89	1.764 1.740	44.81 44.20	1.270 1.260	32.56 32.00	1.210 1.200	30.73 30.48
19	1.2500-.1P-.3L-TS-2A	M35 x 1.0-6g 0.100R	.154 .114	3.91 2.90	1.827 1.795	46.41 45.59	1.949 1.925	49.50 48.90	1.395 1.385	35.43 35.18	1.335 1.325	33.91 33.66



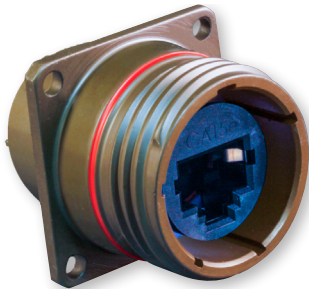




# RJ45 CAT 5E ETHERNET RJ45 CAT 5e TVS connectors



244-002 Wall mount receptacle, PC tail or solder cup  
MIL-DTL-38999 Series III Type Connectors



### Material and Finish<sup>1</sup>

<b>NF</b>	Aluminum/Cadmium Olive Drab
<b>ME</b>	Aluminum/Electroless Nickel
<b>MT</b>	Aluminum/Nickel PTFE
<b>ZR</b>	Aluminum/Black Zinc-Nickel

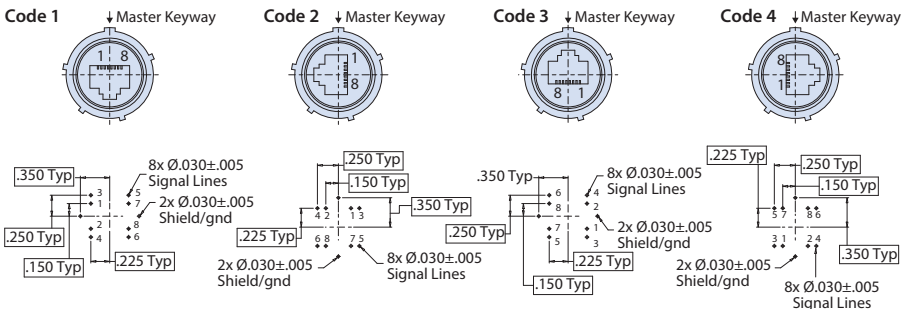
### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- See page B-24 for diode values

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

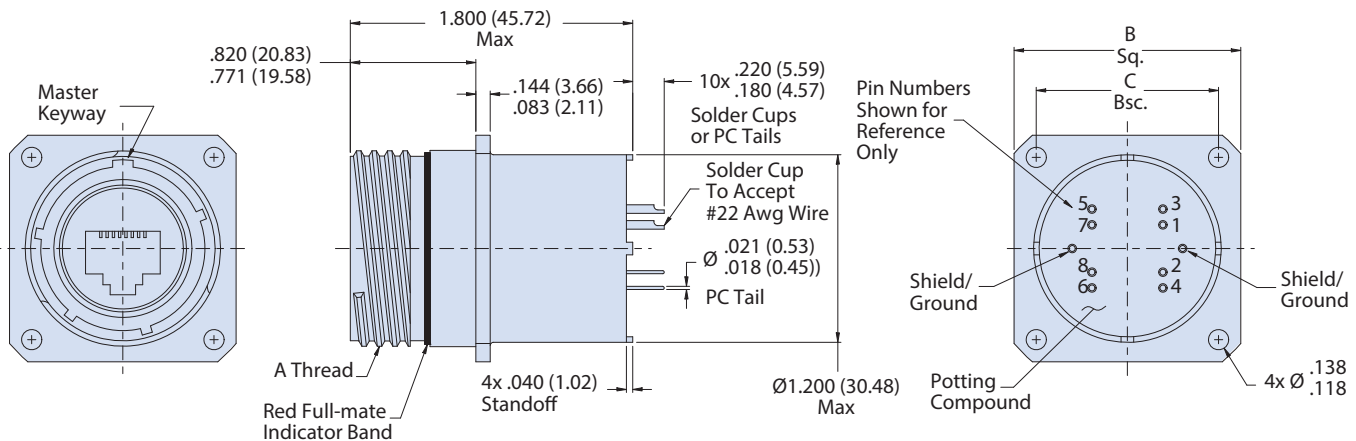
Part Number Development							
<b>Sample Part Number</b>	<b>244-002</b>	<b>NF</b>	<b>19</b>	<b>P</b>	<b>G</b>	<b>N</b>	<b>1</b>
<b>Basic Number</b>	244-002 with stand-offs						
<b>Finish</b>	See Material and Finish Table						
<b>Shell Size</b>	17 or 19						
<b>Termination</b>	P = PC tail S = Solder cup						
<b>Insert-to-Shell Grounding</b>	G = Shielded and grounded to shell						
<b>Alternate Key Position<sup>1</sup></b>	Per MIL-DTL-38999 A, B, C, D, E, N = Normal						
<b>RJ45 Orientation</b>	1, 2, 3, or 4						

### RJ45 ORIENTATION CODE AND PCB LAYOUT (PCB LAYOUT FOR PC TAIL VERSION)



### Component Mounting Side

Jam Nut Dimensions									
Shell Size	A Thread	B Sq.		C Bsc		Ø D Min.		E Bsc	
		in	mm	in	mm	in	mm	in	mm
<b>17</b>	1.1875-.1P-.3L-TS-2A	1.323 1.299	33.60 32.99	1.062	26.97	1.219	30.96	1.062	26.97
<b>19</b>	1.2500-.1P-.3L-TS-2A	1.449 1.425	36.80 36.195	1.156	29.36	1.297	32.94	1.156	29.36





# RJ45 CAT 5E ETHERNET RJ45 CAT 5e TVS connectors



244-003 Wall mount receptacle, PC tail or solder cup  
MIL-DTL-38999 Series III Type Connectors



Part Number Development							
Sample Part Number	244-003	NF	19	P	G	N	1
Basic Number	244-003 with accessory thread						
Finish	See Material and Finish Table						
Shell Size	17 or 19						
Termination	P = PC tail S = Solder cup						
Insert-to-Shell Grounding	G = Shielded and grounded to shell						
Alternate Key Position <sup>1</sup>	Per MIL-DTL-38999 A, B, C, D, E, N = Normal						
RJ45 Orientation	1, 2, 3, or 4						

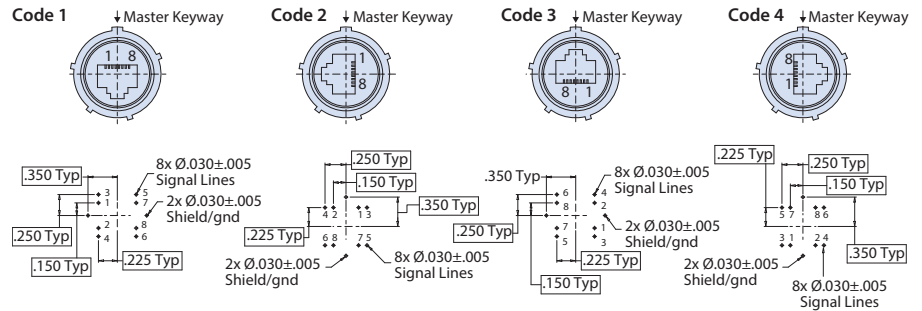
Material and Finish	
NF	Aluminum/Cadmium Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel

## NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- See page B-24 for diode values

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

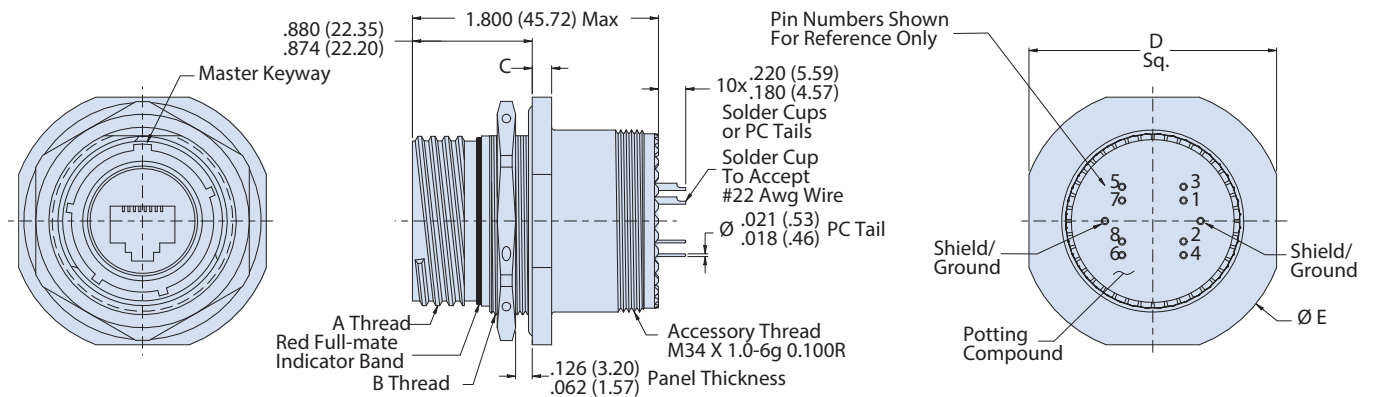
## RJ45 ORIENTATION CODE AND PCB LAYOUT (PCB LAYOUT FOR PCTAIL VERSION)



## Component Mounting Side

Jam Nut Dimensions												
Shell Size	A Thread	B Thread	C		D Sq.		Ø E		Ø F		G Flat	
			in	mm	in	mm	in	mm				
17	1.1875-.1P-.3L-TS-2A	M32 x 1.0-6g 0.100R	.122	3.10	1.642	41.71	1.764	44.81	1.270	32.26	1.210	30.73
			.083	2.11	1.610	40.89	1.740	44.17	1.260	32.00	1.200	30.48
19	1.2500-.1P-.3L-TS-2A	M35 x 1.0-6g 0.100R	.154	3.91	1.827	46.41	1.949	49.50	1.395	35.43	1.35	33.91
			.114	2.90	1.795	45.59	1.925	48.90	1.385	35.18	1.325	33.66

## JAM-NUT RECEPTACLE WITH ACCESSORY THREADS





# RJ45 CAT 5E ETHERNET RJ45 CAT 5e TVS connectors



244-004 Wall mount receptacle, PC tail or solder cup  
MIL-DTL-38999 Series III Type Connectors



Part Number Development							
Sample Part Number	244-004	NF	19	P	G	N	1
Basic Number	244-004 with accessory thread						
Finish	See Material and Finish Table						
Shell Size	17 or 19						
Termination	P = PC tail S = Solder cup						
Insert-to-Shell Grounding	G = Shielded and grounded to shell						
Alternate Key Position	Per MIL-DTL-38999 A, B, C, D, E, N = Normal						
RJ45 Orientation	1, 2, 3, or 4						

### Material and Finish

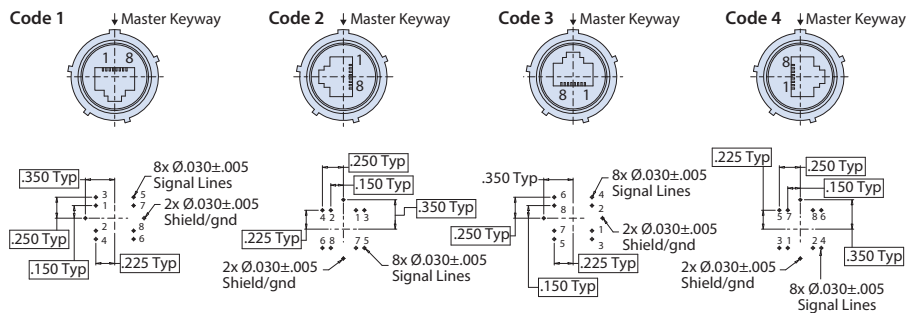
NF	Aluminum/Cadmium Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel

### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- See page B-24 for diode values

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

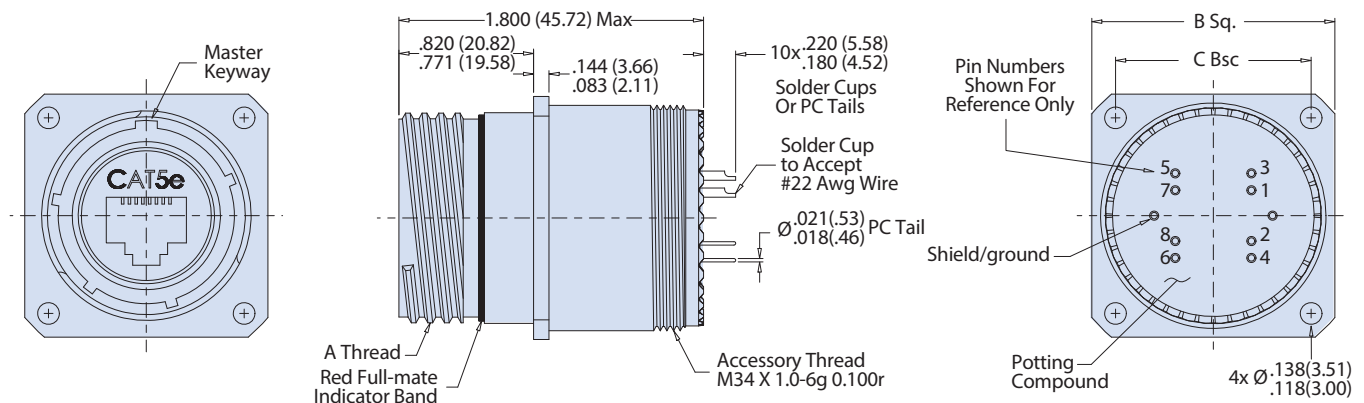
### RJ45 ORIENTATION CODE AND PCB LAYOUT (PCB LAYOUT FOR PC TAIL VERSION)



### Component Mounting Side

Jam Nut Dimensions									
Shell Size	A Thread	B Sq.		C Bsc		Ø D Min		E Bsc	
		in	mm	in	mm	in	mm	in	mm
17	1.1875-.1P-.3L-TS-2A	1.323 1.299	33.60 32.99	1.062	26.97	1.219	30.96	1.062	26.97
19	1.2500-.1P-.3L-TS-2A	1.449 1.425	36.80 36.195	1.156	29.36	1.297	32.94	1.156	29.36

### REAR PANEL MOUNT RECEPTACLE WITH ACCESSORY THREADS



MIL-DTL-38999 TYPE  
FIELD-READY  
USB 2.0

# SUPERSEAL™

Rugged environmental MIL-DTL-38999 type connectors with IP67 open-face sealing, robust insert-to-shell grounding, and a complete range of wire, cable, and circuit board terminations



## SuperSeal™ USB 2.0 Advantages

- Superior sealing—IP67 open face and IP68 mated—for complete system protection against water, sand and dust
- Highly durable USB 2.0 design, including enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance
- Shielded/grounded receptacle connectors
- Crimp, solder-cup, PC tail, contact/wire termination options
- Scoop-proof, self-locking, triple-start threaded coupling (MIL-DTL-38999 Series III type)



Glenair, Inc.  
1211 Air Way  
Glendale, CA 91201-2497  
818-247-6000  
sales@glenair.com  
www.glenair.com



# SERIES 23

## SuperSeal™

### USB 2.0 and 3.0 and 3.2

### Ruggedized solutions

38999 Type SuperSeal ruggedized connectors offer outstanding metal-to-metal grounding sealing performance for commercial, USB 2.0 and high-speed USB 3.0 interfaces in a standard 38999 type package. Both versions are IP68 rated when mated and IP67 rated in the unmated condition for complete system protection against water sand and dust. Glenair USB 2.0 and 3.0 solutions are perfectly suited for field communications where connecting external peripherals such as storage devices, printers, and standard mouse and keyboard input devices. Beyond the addition of standard USB type peripherals these protocols also offer a means to connect other protocol based hardware through the use of supported adapters, including Ethernet RJ45 and HDMI (USB 3.0 preferred). 38999 Type SuperSeal USB connectors feature polarized keys to prevent mismatching and non-corrosive, conductive material and finish options. Highly durable SuperSeal™ insert design, provides enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance. Simple plug-and-play connectivity and *hot-swappable* addition of external peripherals without restarting systems. Crimp, solder-cup, PC tail and cable assemblies available



#### USB 2.0 AND 3.0 CONNECTOR



USB 2.0 connectors begin on page C-3



USB 3.0 connectors begin on page C-21



USB 3.2 connectors begin on page C-40



USB 2.0 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors



Product Selection Guide

	<p><b>233-340</b> C-4</p> <p>SuperSeal™ Coupler with Accessory Threads and USB 2.0/3.0 Male-to-Female (Plug) or Female-to-Female Receptacle</p>	 <p><b>233-345</b> C-14</p> <p>SuperSeal Connectors with Accessory Threads and USB 2.0 Male (Plug) or Female (Receptacle) Interface to Crimp Removable Contacts</p>
	<p><b>233-341</b> C-6</p> <p>SuperSeal Receptacle with crimp removable contacts. USB 2.0 Female Interface to PC Tail Termination</p>	 <p><b>233-370</b> C-16</p> <p>SuperSeal Feed-thru Receptacle with USB 2.0 Female-to-Female Interface</p>
	<p><b>233-342</b> C-8</p> <p>SuperSeal Receptacle with USB 2.0 Female Interface to PC Tail Termination</p>	 <p><b>233-390</b> C-18</p> <p>SuperSeal USB 2.0 Memory Stick</p>
	<p><b>233-343</b> C-10</p> <p>SuperSeal Receptacle with USB 2.0 Female Interface to Solder Cup Termination</p>	 <p><b>233-92</b> C-19</p> <p>SuperSeal USB 3.0 Memory Stick</p>
	<p><b>233-344</b> C-12</p> <p>SuperSeal Receptacle Adapter with Accessory Threads and Pin or Socket Contacts to USB 2.0 Female Interface</p>	 <p><b>Cable Assemblies</b> E-20</p> <p>SuperSeal USB 3.0 Cable Assemblies</p>





# USB 2.0 AND 3.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### Performance Specifications

#### USB 2.0 Performance Specifications

Property	Description
----------	-------------

##### Material and Finish

<b>Shell/Coupling and Plating</b>	Aluminum, cad/o.d., electroless nickel, nickel PTFE, black zinc nickel
<b>Contacts</b>	PC tails, solder cup, and crimp contacts: copper alloy, gold plated
<b>USB Insulator</b>	LCP
<b>Grommet, Peripheral Seal, Interfacial Seal, O-ring</b>	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988
<b>Shell Sizes</b>	15 Consult factory for other shell size options

##### Electrical Specifications

<b>Data Rate</b>	480 Mbps
<b>Power Usage</b>	500 milliamps (mA)
<b>Current Rating</b>	1.5 Amps,
<b>D.W.V.</b>	500 VAC
<b>I.R.</b>	1000 MegOhms
<b>Cabling Length</b>	5.0 Meters Max
<b>Shielding</b>	Continuous through coupler or continuous coupler to shell

##### Environmental/Mechanical Performance

<b>Sealing</b>	IP68 mated condition, IP67 unmated condition
<b>Outgassing</b>	<b>Mod Code 186S</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0
<b>Operating Temperature</b>	-40°C to +120°C
<b>Vibration</b>	20g's, 3 Axis, 10 - 2000Hz
<b>Mechanical Shock</b>	300 g's
<b>Backshell Interface</b>	MIL-DTL-38999 Designator H
<b>Mating System</b>	Triple-start stub ACME
<b>Mating Cycles</b>	500

#### USB 3.0 Performance Specifications

Property	Description
----------	-------------

##### Material and Finish

<b>Shell/Coupling and Plating</b>	Aluminum, cad/o.d., electroless nickel, nickel PTFE, black zinc nickel
<b>Contacts</b>	PC tails, solder cup, and crimp contacts: copper alloy, gold plated
<b>USB Insulator</b>	LCP
<b>Grommet, Peripheral Seal, Interfacial Seal, O-ring</b>	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988
<b>Shell Sizes</b>	15 Consult factory for other shell size options

##### Electrical Specifications

<b>Data Rate</b>	5.0 Gbps
<b>Power Usage</b>	500 milliamps (mA)
<b>Current Rating</b>	1.5 Amps,
<b>D.W.V.</b>	500 VAC
<b>I.R.</b>	1000 MegOhms
<b>Cabling Length</b>	3.0 Meters Max
<b>Shielding</b>	Continuous through coupler or continuous coupler to shell

##### Environmental/Mechanical Performance

<b>Sealing</b>	IP68 mated condition, IP67 unmated condition
<b>Outgassing</b>	<b>Mod Code 186S</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0
<b>Operating Temperature</b>	-40°C to +85°C
<b>Vibration</b>	20g's, 3 Axis, 10 - 2000Hz
<b>Mechanical Shock</b>	300 g's
<b>Backshell Interface</b>	MIL-DTL-38999 Designator H
<b>Mating System</b>	Triple-start stub ACME
<b>Mating Cycles</b>	500



# USB 2.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



233-340 Couplers with accessory threads



**Plug  
Front View**



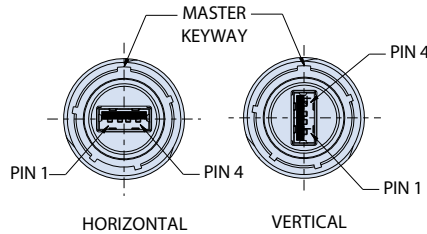
**Square Flange  
Receptacle  
Front View**



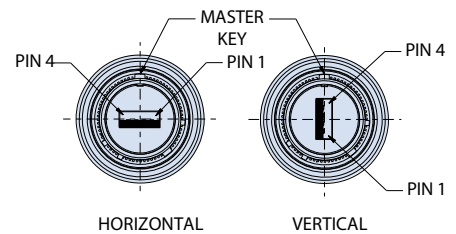
**Jam Nut Receptacle  
Front View**

Part Number Development										
<b>Sample Part Number</b>	<b>233-340</b>	<b>NF</b>	<b>00</b>	<b>-15</b>	<b>2</b>	<b>A</b>	<b>A</b>	<b>N</b>	<b>H</b>	<b>T</b>
<b>Basic Number</b>	<b>233-340</b>									
<b>Finish</b>	See Material and Finish table									
<b>Connector Style<sup>1</sup></b>	See Connector Style table									
<b>Shell Size</b>	<b>15</b>									
<b>USB Performance</b>	<b>2</b> = USB 2.0									
<b>USB Front Interface</b>	<b>A</b> = Type A									
<b>USB Back Interface</b>	<b>A</b> = Type A									
<b>Alternate Key Position<sup>1</sup></b>	<b>A, B, C, D, E, N</b> = Normal per MIL-DTL-38999									
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical									
<b>Shrink Boot</b>	<b>T</b> = Part No. 770-028 (Omit for None)									

### USB Receptacle Orientation Options



### USB Plug Orientation Options



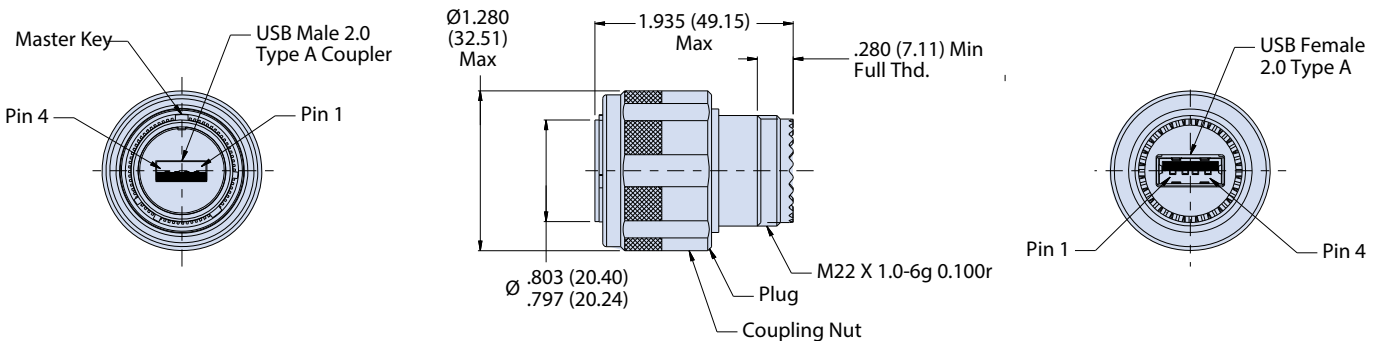
Material and Finish	
<b>NF</b>	Aluminum/Cadmium, Olive Drab
<b>M</b>	Aluminum/Electroless Nickel
<b>MT</b>	Alumimun/Nickel PTFE
<b>ZR</b>	Aluminum/Black Zinc-Nickel

Connector Style	
<b>G6</b>	Plug
<b>07</b>	Rear panel mount, jam nut receptacle
<b>00</b>	Wall mount receptacle with slotted holes
<b>D0</b>	Wall mount receptacle with round holes
<b>CM</b>	Wall mount receptacle with metric clinch nuts

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Sizes (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

## G6 - PLUG WITH ACCESSORY THREADS







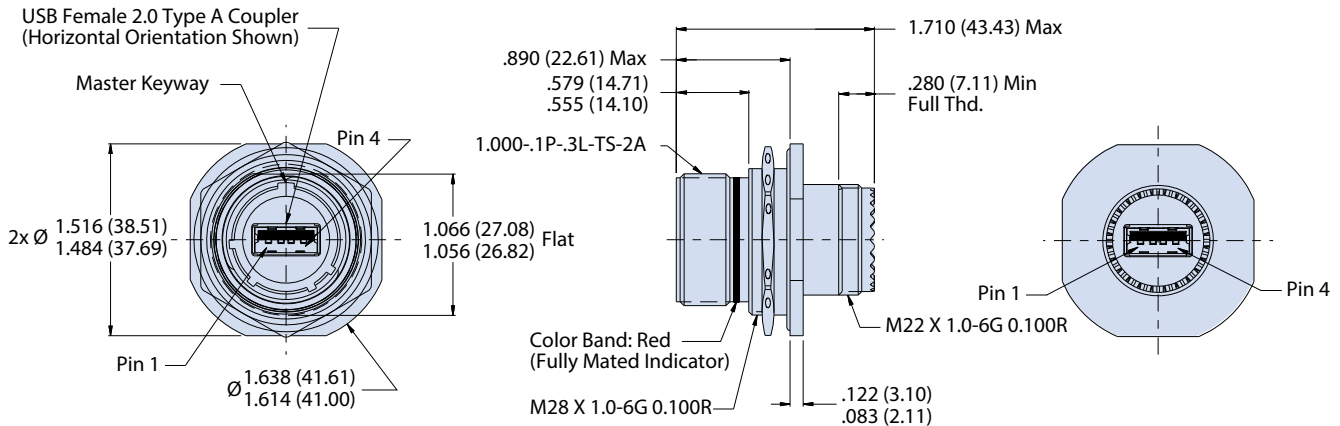
# USB 2.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



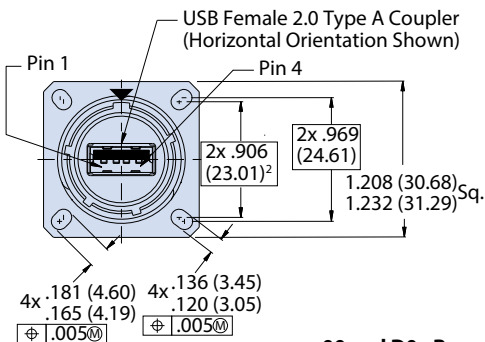
### 233-340 Couplers with accessory threads

#### 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH ACCESSORY THREADS

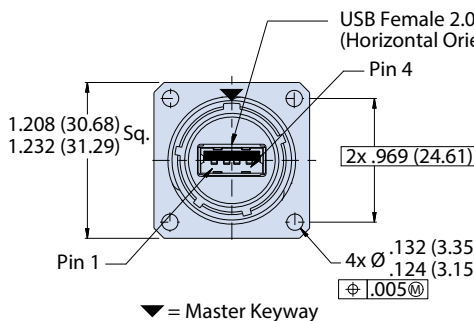


#### 00, D0 AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS

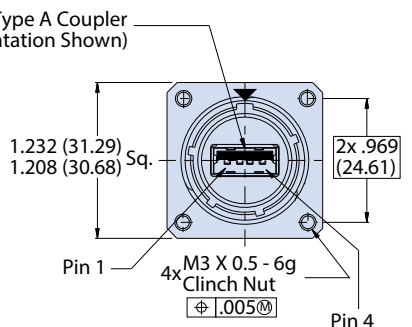
##### 00 - Slotted Hole Receptacle Face View



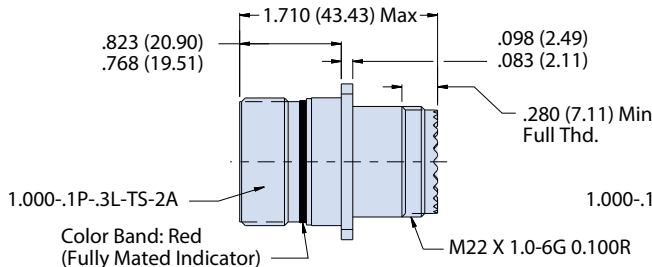
##### D0 - Round Hole Receptacle Face View



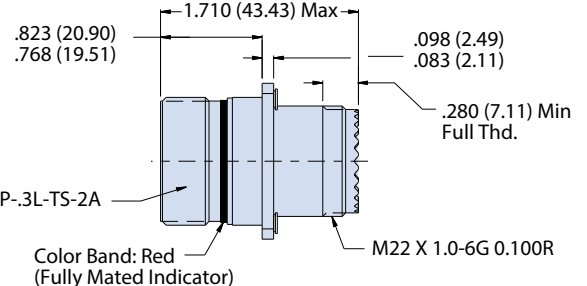
##### CM - Clinch Hole Receptacle Face View



##### 00 and D0 - Receptacle Side View



##### CM - Receptacle Side View



#### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- Receptacle has USB female receptacle, plug has USB male plus
- Material and Finish
  - Shell, jam nut: al alloy
  - Insulators: high grade rigid dielectric/n.a.
  - Contacts: copper alloy, gold plated
  - Seals: silicone based elastomer
- USB (shell/contacts): copper alloy
- Dielectric: hi-temp thermoplastic PA9T UL94V-0
- Hardware: stainless steel /passivated



USB 2.0

# MIL-DTL-38999 Series III Type Connectors



233-341 USB 2.0 Type A receptacle to size 22D crimp removable contacts



Plug Front View



Jam Nut Receptacle Front View



Square Flange Receptacle Rear View

How to Order	
Sample Part Number	233-341 NF 00 -15 2 A N H T
Basic Number	233-341
Finish <sup>1</sup>	See Material and Finishes table <sup>1</sup>
Connector Style <sup>1</sup>	See connector style table
Shell Size	15
RJ45 Category	2 = USB 2.0
USB Interface Type	A = Type A
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal; per MIL-DTL-38999
USB Orientation	H = Horizontal V = Vertical
Shrink Boot	T = Shrink Boot (Omit for None)

**233-341 Superseded by 233-345**

Materials and Finishes <sup>1</sup>	
NF	Cadmium olive drab
M	Electroless nickel
MT	Nickel PTFE

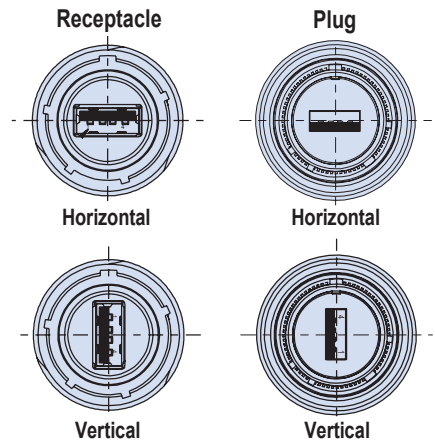
Connector Style <sup>1</sup>	
00	Square flange receptacle with slotted holes
07	Jam nut receptacle
D0	Wall mount receptacle with slotted holes
CM	Wall mount receptacle with metric clinch nuts
G6	Plug

## NOTES

1. See Section A for alternate key positions, panel cutout dimensions and complete material and finish options
2. Front panel mount only
3. All external dimensions, features, etc. Compliant with D38999/20, /24 & /26. Consult factory for additional information

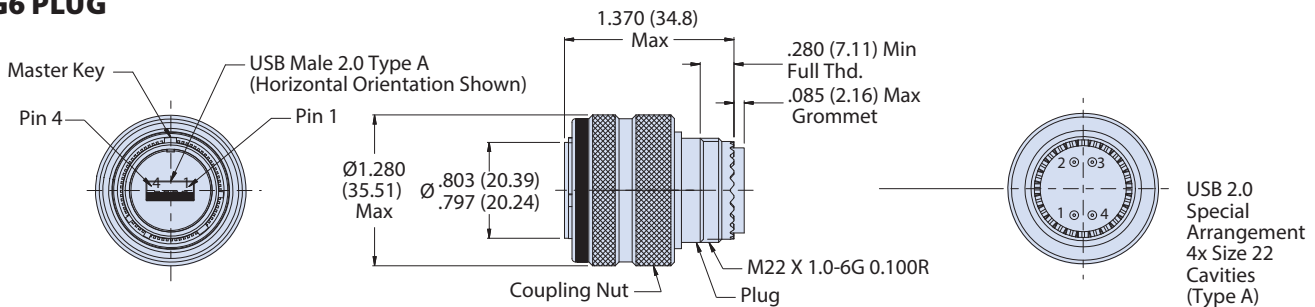
USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Sizes (AWG)
1	(V Bus)	Red	+5V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

## USB Orientation Options (Partial Views Shown)



*All external dimensions, features, etc. compliant with D38999/20, /24, & /26. Consult factory for additional information.*

## G6 PLUG





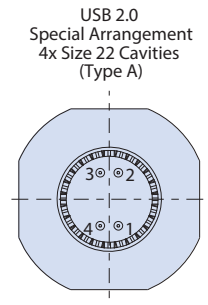
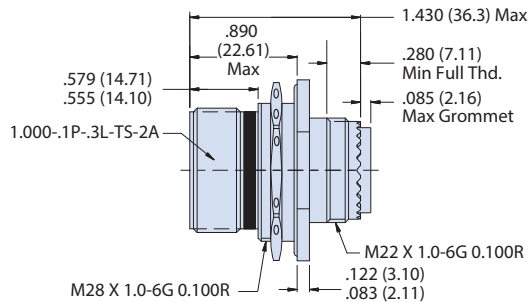
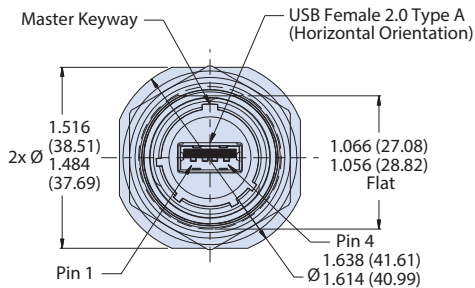
USB 2.0

# MIL-DTL-38999 Series III Type Connectors

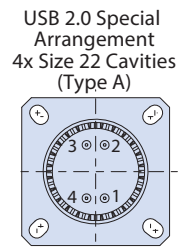
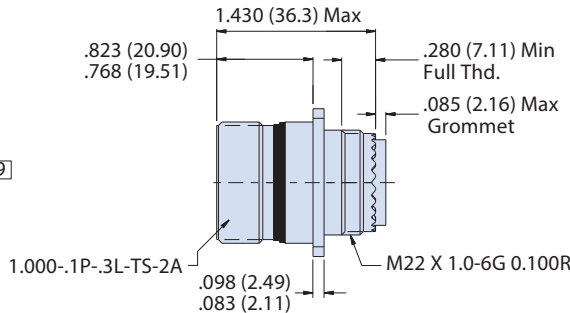
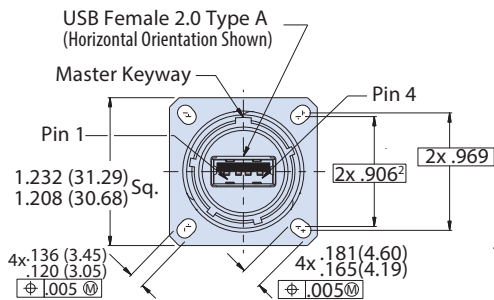


233-341 USB 2.0 Type A receptacle  
to size 22D crimp removable contacts

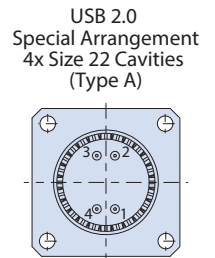
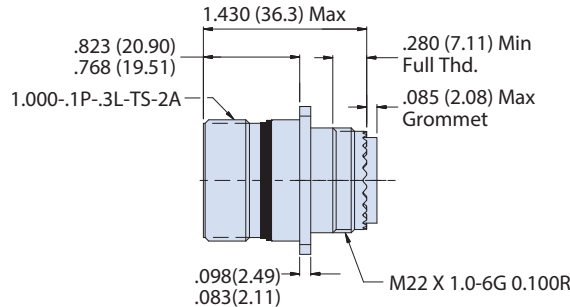
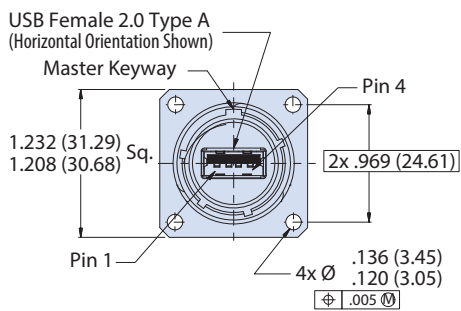
## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH ACCESSORY THREADS



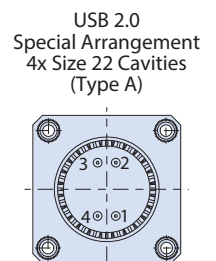
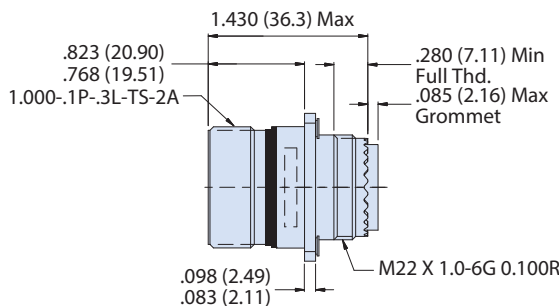
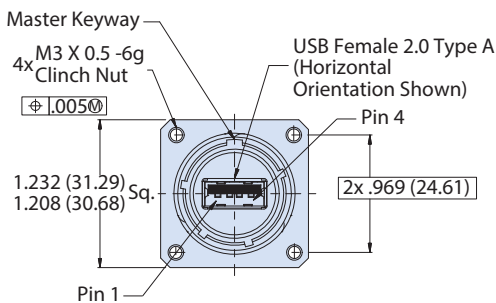
## 00 WALL MOUNT RECEPTACLE WITH ACCESSORY THREADS



## DO - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS



## CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS





# USB 2.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 233-342 Receptacle with PC tails



Jam Nut Receptacle Rear View



Jam Nut Receptacle Front View

Part Number Development								
Sample Part Number	233-342	NF	00	-15	2	A	N	H
Basic Number	233-342							
Finish	See Material and Finish table							
Connector Style <sup>1</sup>	See Connector Style table							
Shell Size	15							
USB Performance	2 = USB 2.0							
USB Interface Type	A = Type A							
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal; per MIL-DTL-38999							
USB Orientation	H = Horizontal V = Vertical							

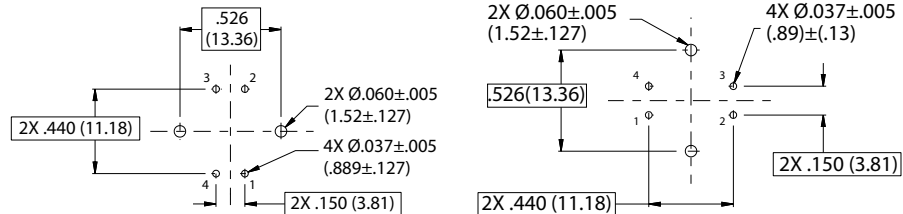
#### USB Receptacle Orientation Options (Partial Views Shown)



Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
M	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel

Connector Style	
07	Rear panel mount, jam nut receptacle
00	Wall mount receptacle with slotted holes
DO	Wall mount receptacle with round holes
CM	Wall mount receptacle with metric clinch nuts

#### Recommended (Solder Side)



#### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Rear panel mount only
- Meets IP67 in unmated condition, IP68 mated
- Receptacle has USB female receptacle
- Material/Finishes:
  - Insulators: high grade rigid dielectric/n.a.
  - Contacts: copper alloy, gold plated
  - Seals: silicone based elastomer
  - USB (shell/contacts): copper alloy
  - Dielectric: hi-temp thermoplastic PA9T UL94V-0
  - Hardware: stainless steel/passivated

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Sizes (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*



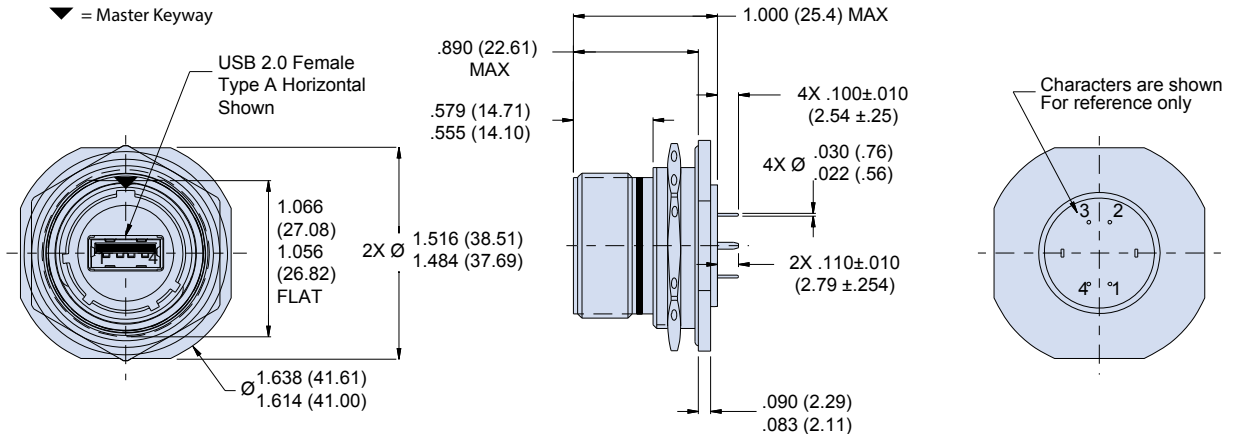
USB 2.0 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors



233-342 Receptacle with PC tails

07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE

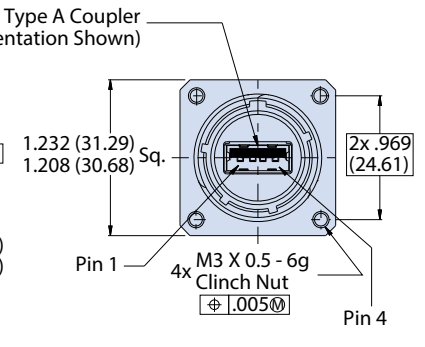
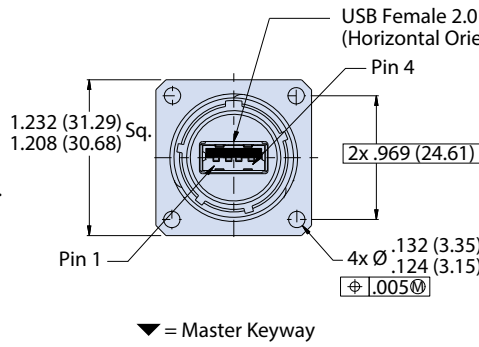
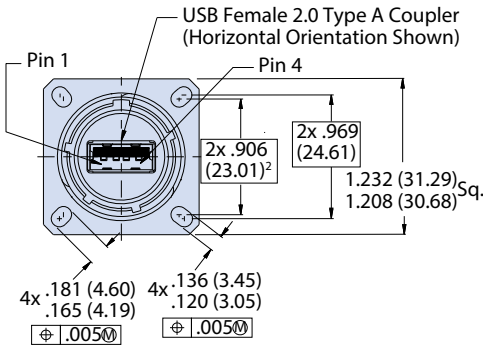


00, D0 AND CM - WALL MOUNT RECEPTACLES

00 - Slotted Hole Receptacle Face View

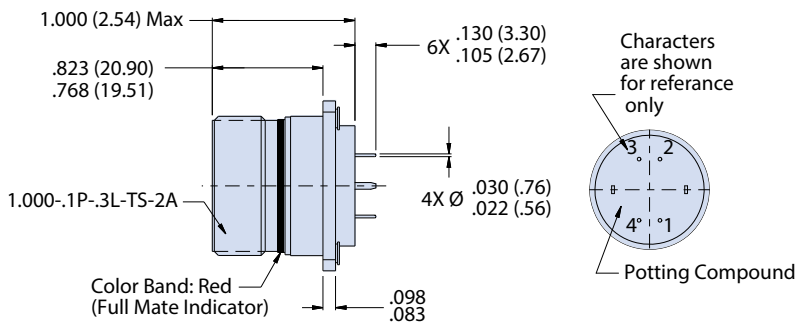
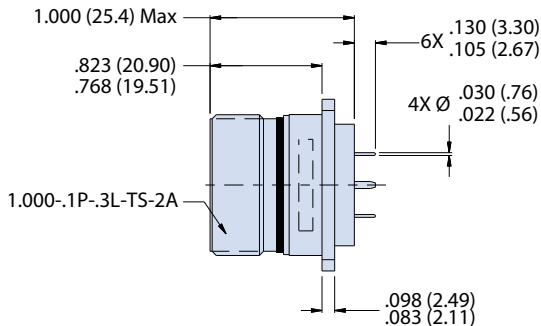
D0 - Round Hole Receptacle Face View

CM - Clinch Hole Receptacle Face View



00 and D0 - Receptacle (Side View)

CM - Receptacle (Side View)





# USB 2.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 233-343 Receptacle with solder cup termination



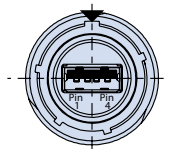
**Jam Nut Receptacle  
Front View**



**Jam Nut Receptacle  
Rear View**

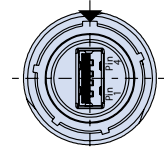
Part Number Development								
<b>Sample Part Number</b>	<b>233-343</b>	<b>NF</b>	<b>00</b>	<b>-15</b>	<b>2</b>	<b>A</b>	<b>N</b>	<b>H</b>
<b>Basic Number</b>	<b>233-343</b>							
<b>Finish</b>	See Material and Finish table							
<b>Connector Style<sup>1</sup></b>	See Connector Style table							
<b>Shell Size</b>	<b>15</b>							
<b>USB Performance</b>	<b>2 = USB 2.0</b>							
<b>USB Interface Type</b>	<b>A = Type A</b>							
<b>Alternate Key Position<sup>1</sup></b>	<b>A, B, C, D, E, N = Normal; per MIL-DTL-38999</b>							
<b>USB Orientation</b>	<b>H = Horizontal V = Vertical</b>							

#### USB Receptacle Orientation Options (Partial Views Shown)



Horizontal

▼ = Master Keyway



Vertical

Material and Finish	
<b>NF</b>	Aluminum/cadmium, olive drab
<b>M</b>	Aluminum/electroless nickel
<b>MT</b>	Aluminum/nickel PTFE
<b>ZR</b>	Aluminum/black zinc-nickel

Connector Style	
<b>07</b>	Rear panel mount, jam nut receptacle
<b>00</b>	Wall mount receptacle with slotted holes
<b>DO</b>	Wall mount receptacle with round holes
<b>CM</b>	Wall mount receptacle with metric clinch nuts

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Sizes (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Front panel mount only
- All external dimensions, features, etc. Compliant with D38999/20, /24 & /26. Consult factory for additional information
- Meets IP67 in unmated condition, IP68 mated
- Receptacle has USB female receptacle
- Materials and finishes
  - Shell, jam nut: aluminum ally
  - insulators: high grade 4 rigid dielectric/n.a.
  - contacts: copper alloy, gold plated
  - seals: silicone based elastomer
  - USB (shell/contacts): copper alloy
  - dielectric: hi-temp thermoplastic PA9T UL94V-0
  - Hardware: stainless steel/passivated



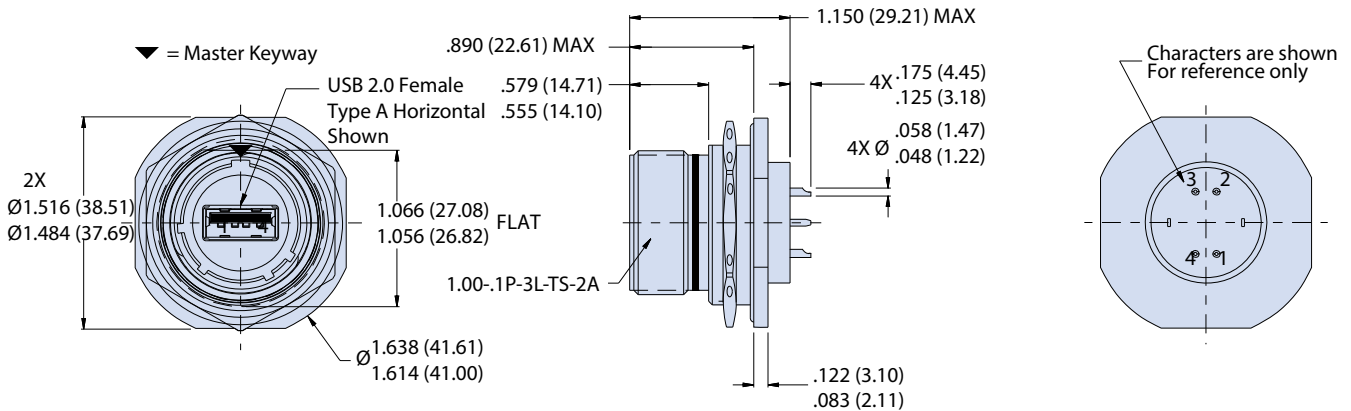
# USB 2.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



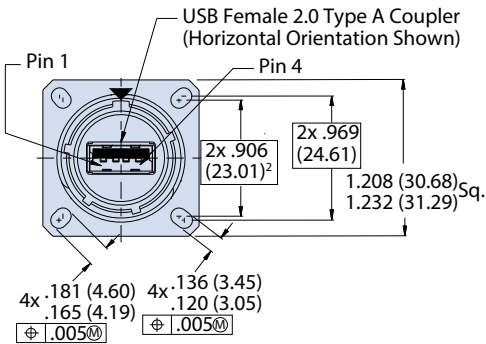
### 233-343 Receptacle with solder cup termination

#### 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE

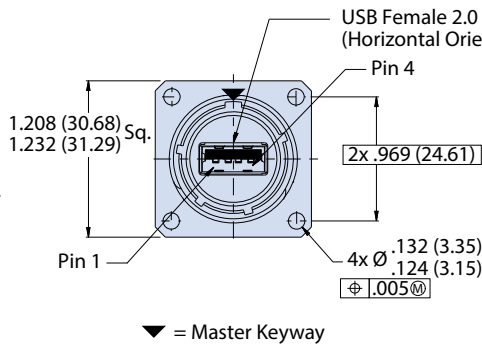


#### 00, D0 AND CM - WALL MOUNT RECEPTACLES

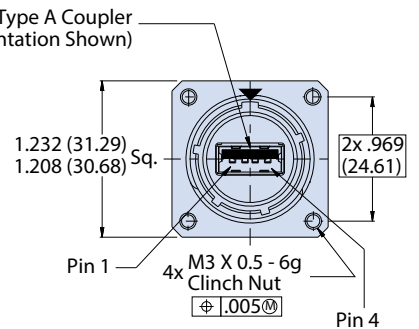
00 - Slotted Hole Receptacle Face View



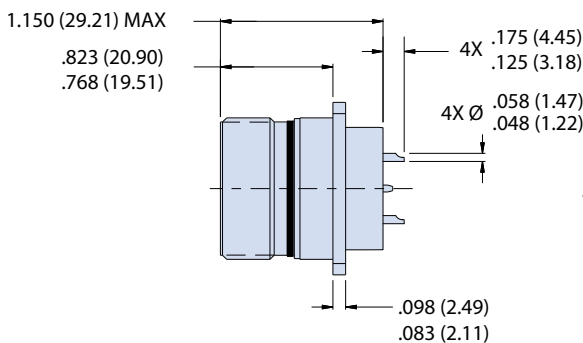
D0 - Round Hole Receptacle Face View



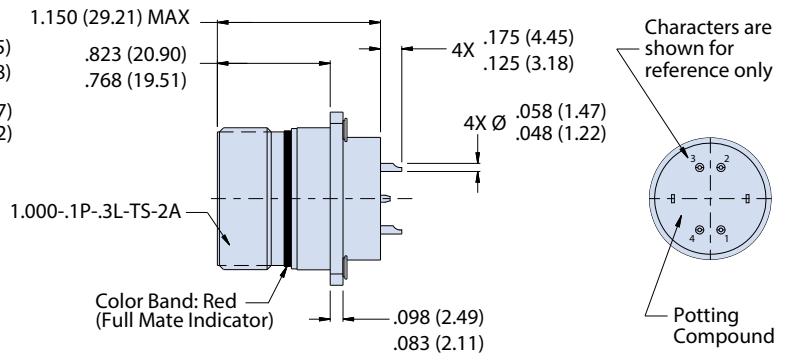
CM - Clinch Hole Receptacle Face View



00 and D0 - Receptacle Side View



CM - Receptacle Side View





# USB 2.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 233-344 Receptacle adapter with MIL-STD 1560 interface



Part Number Development										
Sample Part Number	233-344	NF	00	15	-35	2	A	P	N	T
Basic Number	233-344									
Finish	See Material and Finish table									
Connector Style <sup>1</sup>	See Connector Style table									
Shell Size	15									
Insert Arrangement <sup>4</sup>	35 = IAW MIL-STD-1560, 15-35									
USB Performance	2 = USB 2.0									
USB Rear Interface	A = Type A									
Contact Style	P = Pin S = Socket									
Alternate Polarization <sup>1</sup>	A, B, C, D, E, N = Normal; per MIL-DTL-38999									
Shrink Boot	T = Shrink Boot; Omit for none									

Material and Finish	
NF	Aluminum/cadmium, olive drab
M	Aluminum/electroless nickel
MT	Aluminum/nickel PTFE
ZR	Aluminum/black zinc-nickel

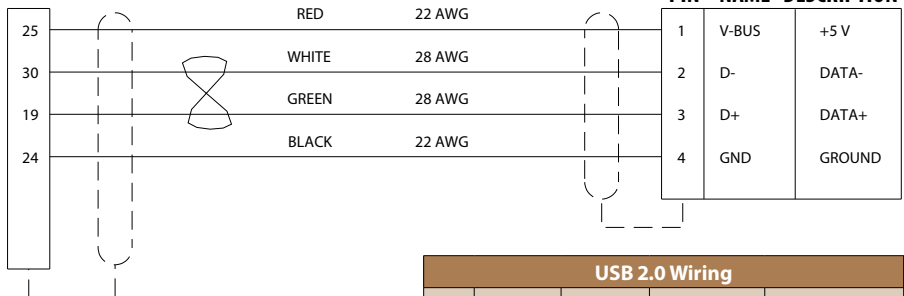
Connector Style	
G6	Plug
07	Rear panel mount, jam nut receptacle
00	Wall mount receptacle with slotted holes <sup>2</sup>
D0	Wall mount receptacle with round holes
CM	Wall mount receptacle with metric clinch nuts

### NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Front panel mount only
3. Insert arrangement in accordance with MIL-STD-1560, 15-35. Contact factory for additional options
4. Meets IP67 in unmated condition, IP68 mated
5. For custom pin assignment consult factory
6. Both plug and receptacle shells have MIL-STD-1560 mating interface and rear USB female receptacles

### USB 2.0 Wiring Diagram

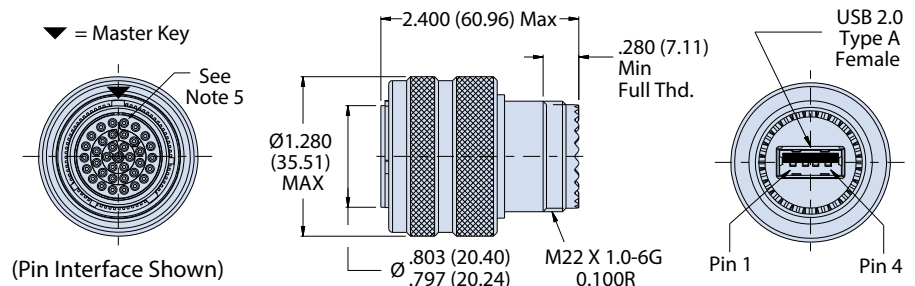
P1 (connector interface)  
Only 4 pins needed



*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Sizes (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

### G6 PLUG WITH ACCESSORY THREADS







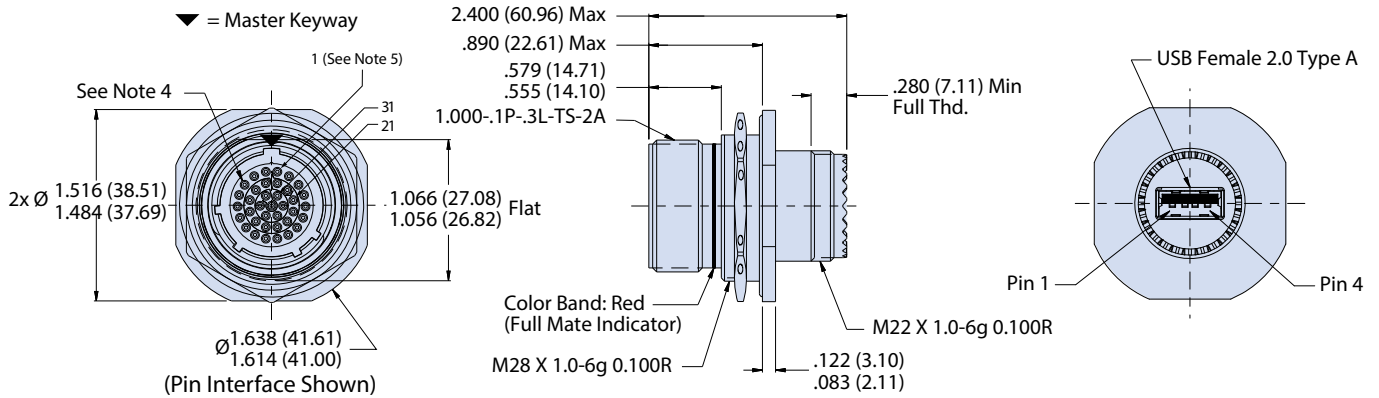
USB 2.0 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors



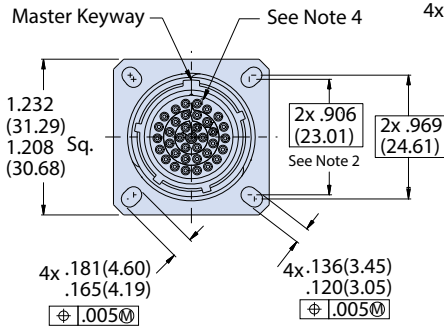
233-344 Receptacle adapter with MIL-STD 1560 interface

**07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH ACCESSORY THREADS**

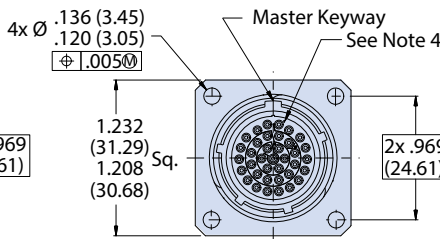


**00, D0 AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS**

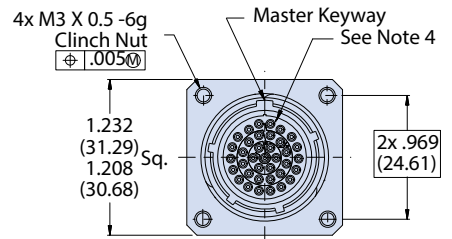
**00 - Slotted Hole Receptacle (Mating Face)**  
(Pin Interface Shown)



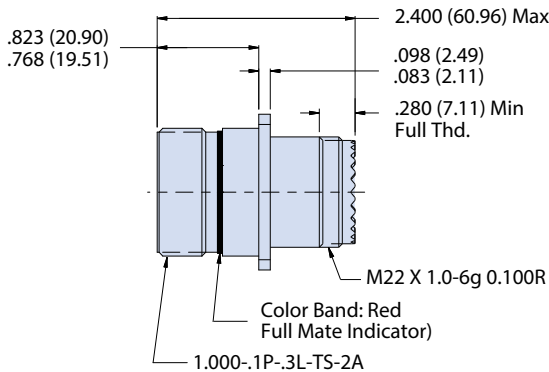
**D0 - Round Hole Receptacle (Mating Face)**  
(Pin Interface Shown)



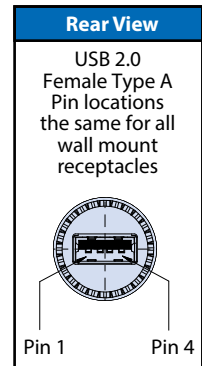
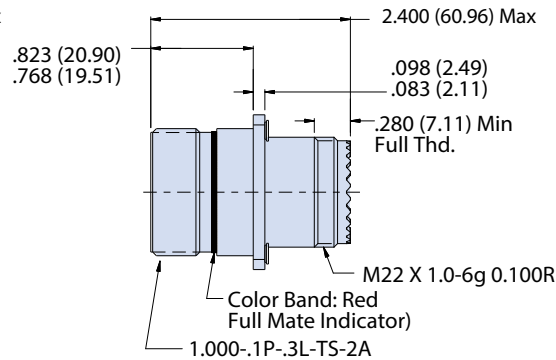
**CM - Clinch Hole Receptacle (Mating Face)**  
(Pin Interface Shown)



**00 and D0 - Receptacle (Side View)**



**CM - Receptacle (Side View)**





# USB 2.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 233-345 Receptacle with crimp removable contacts



Receptacle Front View

Receptacle Rear View

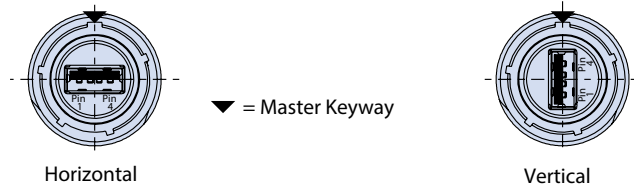
Part Number Development	
Sample Part Number	233-345 NF 00 -15 2 A N H T
Basic Number	233-345
Finish	See Material and Finish table
Connector Style <sup>1</sup>	See Connector Style table
Shell Size	15
USB Performance	2 = USB 2.0
USB Interface Type	A = Type A
Alternate Polarization <sup>1</sup>	A, B, C, D, E, N = Normal; per MIL-DTL-38999
USB Orientation	H = Horizontal V = Vertical
Shrink Boot	T = Shrink Boot; Omit for none

Material and Finish	
NF	Aluminum/cadmium, olive drab
M	Aluminum/electroless nickel
MT	Aluminum/nickel PTFE
ZR	Aluminum/black zinc-nickel

Connector Style	
G6	Plug
07	Rear panel mount, jam nut receptacle
00	Wall mount receptacle with slotted holes
D0	Wall mount receptacle with round holes
CM	Wall mount receptacle with metric clinch nuts

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Sizes (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

#### USB Receptacle Orientation Options (Partial Views Shown)

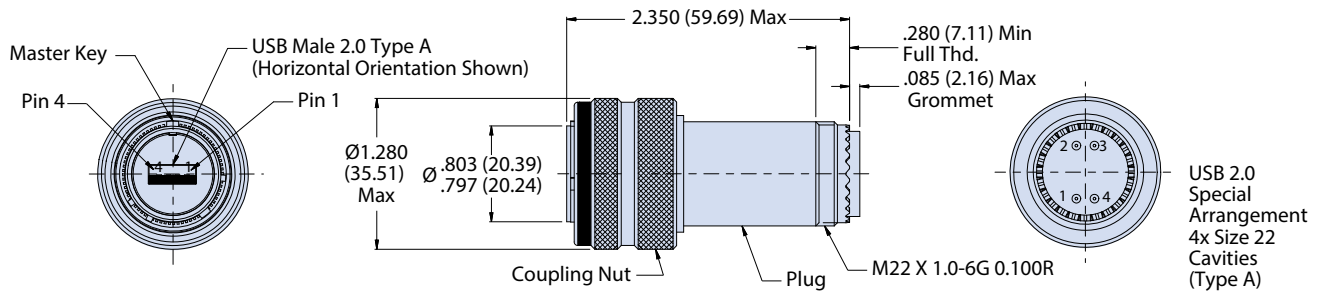


#### NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Front panel mount only
3. Crimp removable size 22 socket contacts (M39029/56-348) supplied loose
4. Meets IP67 in unmated condition, IP68 mated
5. Receptacle has USB female receptacle mating interface

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

#### G6 PLUG WITH ACCESSORY THREADS





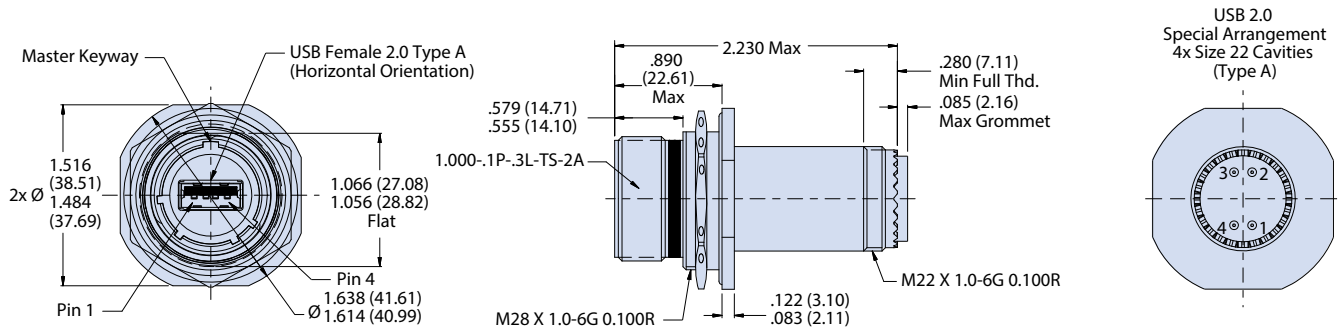
# USB 2.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

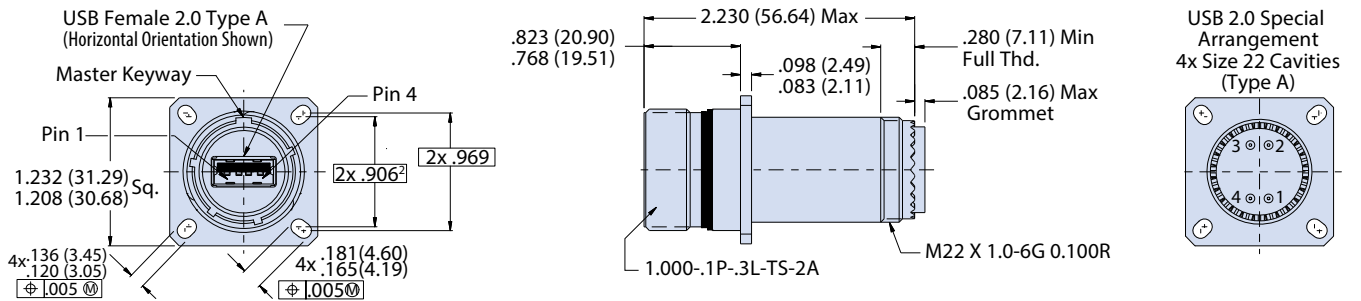


### 233-345 Receptacle with crimp removable contacts

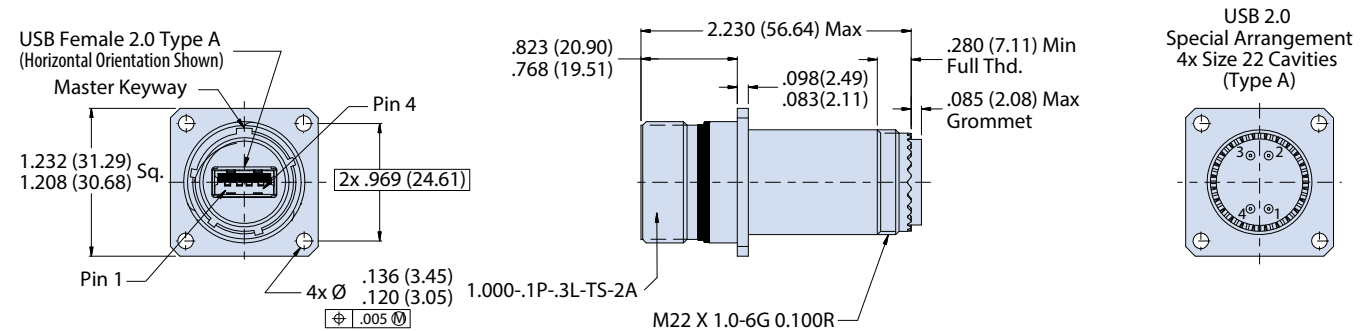
#### 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH ACCESSORY THREADS



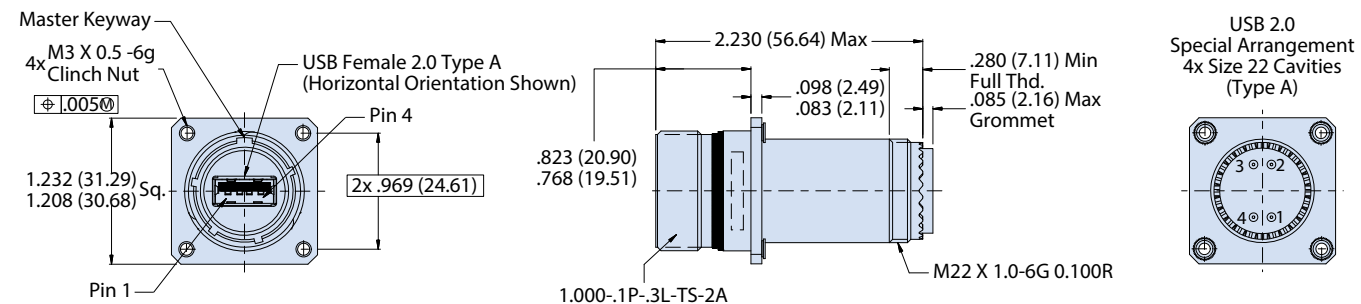
#### 00 WALL MOUNT RECEPTACLE WITH ACCESSORY THREADS



#### DO - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS



#### CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS





# USB 2.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

### 233-370 Feed-through receptacle



**Feed-through  
Front View**

Part Number Development									
<b>Sample Part Number</b>	<b>233-370</b>	<b>NF</b>	<b>00</b>	<b>-17</b>	<b>2</b>	<b>A</b>	<b>A</b>	<b>N</b>	<b>H</b>
<b>Basic Number</b>	<b>233-370</b>								
<b>Finish</b>	See Material and Finish table								
<b>Connector Style<sup>1</sup></b>	See Connector Style table								
<b>Shell Size</b>	<b>15</b> or <b>17</b>								
<b>USB Performance</b>	<b>2</b> = USB 2.0								
<b>USB Front Interface</b>	<b>A</b> = Type A								
<b>USB Rear Interface</b>	<b>A</b> = Type A								
<b>Alternate Polarization<sup>1</sup></b>	<b>A, B, C, D, E, N</b> = Normal								
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical								

#### USB Receptacle Orientation Options (Partial Views Shown)



Material and Finish	
<b>NF</b>	Aluminum/cadmium, olive drab
<b>M</b>	Aluminum/electroless nickel
<b>MT</b>	Aluminum/nickel PTFE
<b>ZR</b>	Aluminum/black zinc-nickel

Connector Style	
<b>07</b>	Rear panel mount, jam nut receptacle
<b>00</b>	Wall mount receptacle with slotted holes <sup>2</sup>
<b>DO</b>	Wall mount receptacle with round holes
<b>CM</b>	Wall mount receptacle with metric clinch nuts

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Sizes (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

#### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Front panel mount only
- Meets IP67 in unmated condition, IP68 mated
- Feedthru has front and rear USB female mating interface

Jam Nut Mount							
Shell Size	Ø H		J		K Flat		L Thread
	in	mm	in	mm	in	mm	
15	1.638	41.61	1.516	38.51	1.066	27.08	M28 X 1.0-6G 0.100R
	1.614	41.00	1.484	37.69	1.056	26.82	
17	1.764	44.81	1.642	41.71	1.191	30.25	M32 X 1.0-6G 0.100R <sup>4</sup>
	1.740	44.20	1.610	40.89	1.181	30.00	

Wall Mount														
Shell Size	A Thread		B Sq		C Bsc		D Bsc <sup>2</sup>		E		F		Ø G Holes	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
15	1.0000-1P-.3L-TS-2A	1.232	31.29	.969	24.61	.906	23.01	.136	3.45	0.181	4.60	0.136	3.45	
		1.208	30.68							0.165	4.19			
17	1.1875-1P-.3L-TS-2A	1.323	33.60	1.062	26.97	.969	24.61	0.120	3.05	0.202	5.13	0.120	3.05	
		1.299	32.99							0.186	4.72			



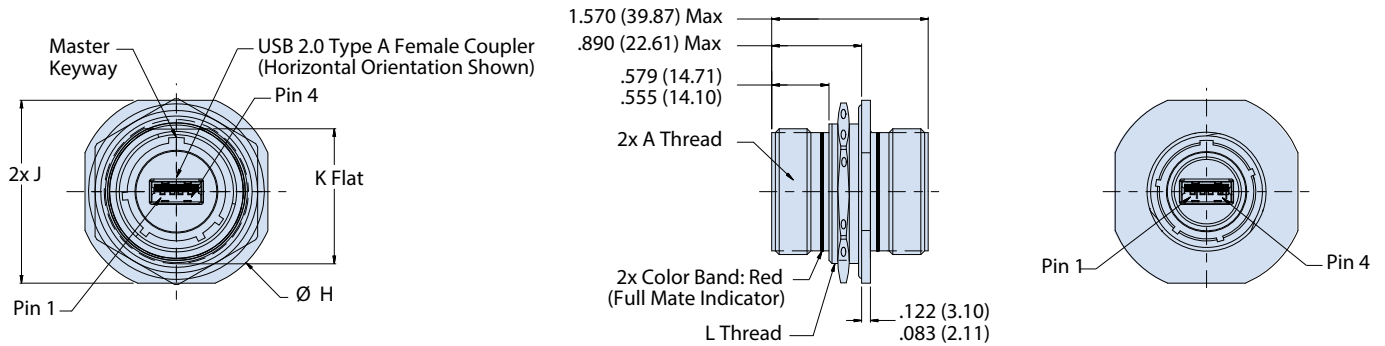
USB 2.0 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors



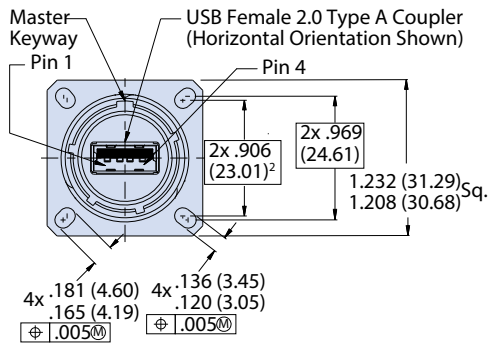
233-370 Feed-through receptacle

**07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE**

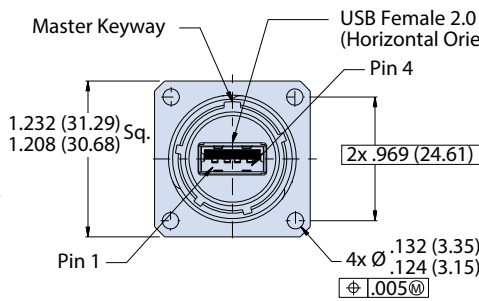


**00, D0 AND CM - WALL MOUNT RECEPTACLES**

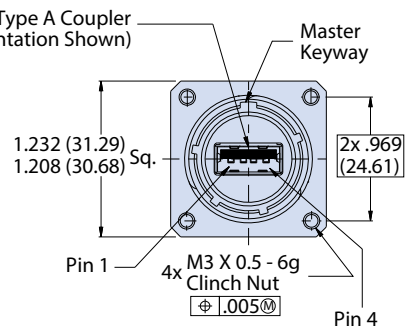
**00 - Slotted Hole Receptacle Face View**



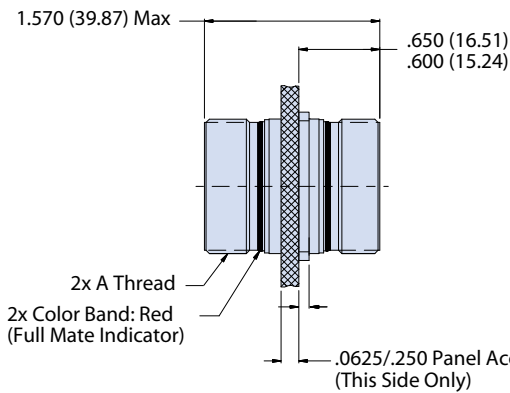
**D0 - Round Hole Receptacle Face View**



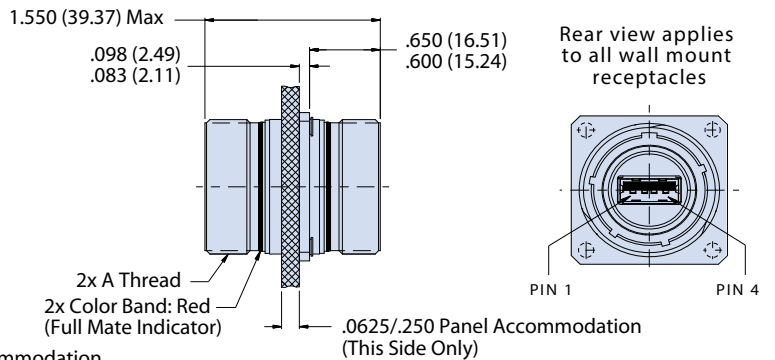
**CM - Clinch Hole Receptacle Face View**



**00 and D0 - Receptacle Side View**



**CM - Receptacle Side View**



*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*



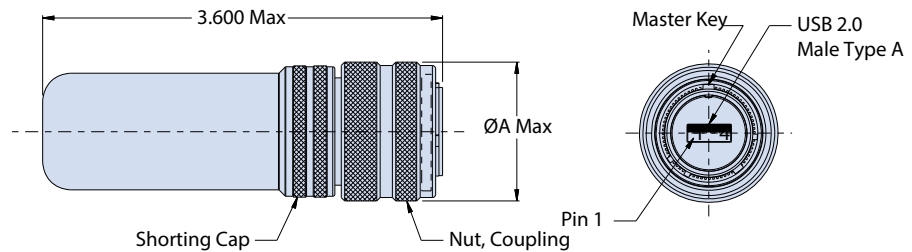
# USB 2.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

### 233-390 USB 2.0 Memory stick

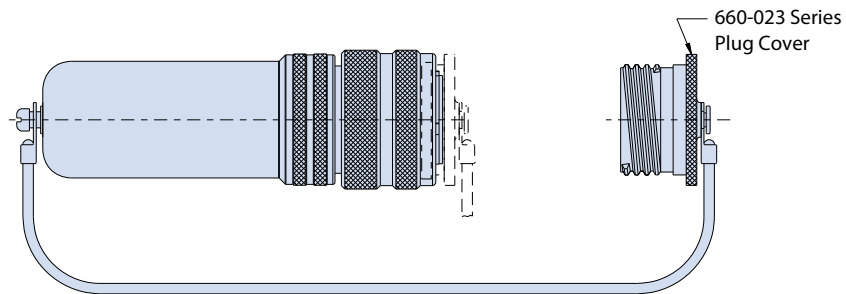


Part Number Development	
Sample Part Number	233-390 NF 32 -15 N H P
Series / Basic Part No.	233-390
Finish	NF = Aluminum/cadmium olive drab ME = Aluminum/electroless nickel MT = Aluminum/nickel PTFE ZR = Aluminum/zinc-nickel
Storage Capacity Options	128 = 128Gb 64 = 64Gb 32 = 32 Gb, 16 = 16 Gb, 8 = 8Gb
Shell Size	15, 17, 19, 21, 23, 25
Alternate Key Position	A, B, C, D, E, N = Normal; Per MIL-DTL-38999
USB Orientation	H = Horizontal V = Vertical
Protective Cover Option	P = Series 660-023 cover (omit for none)



View shown with Protective Cap

Dimensions	
Shell Size	ØA Max
15	1.280 (32.5)
17	1.406 (35.7)
19	1.516 (38.5)
21	1.642 (41.7)
23	1.768 (44.9)
25	1.890 (48.0)



#### NOTES

- System requirements: Windows 2000, XP, Vista, Windows 7.
- Compatibility: plug and play; USB 2.0 Compliance.
- Interface: USB 2.0, Type A male.
- Data transfer rates: USB 2.0: Up to 25 Mb/sec read, 10Mb/sec write.
- Password protection and AES encryption.
- Mates with 233-340,-341,-342,-343 & -345
- Environmental parameters:  
Operating temperatures: -40°C to 85°C (see part number development)
- Storage temperatures: -40°C to 85°C
- Humidity range operating: 10% to 95%
- Memory stick uses USB male plug
- Material/Finish
  - Barrel, coupling nut:
  - Insulators: high grade rigid dielectric/ N.A.
  - Seal: fluorosilicone/N.A.
  - EMI grounding spring: BeCu /electroless nickel plate.
  - Hardware: stainless steel/passivated



USB 2.0 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors



2330-0069 USB 2.0 Cable assembly



**2330-0069 Glenair SuperSeal™ USB 2.0 cable jumpers, with SuperNine® connectors to standard USB Type A plug**

SuperSeal USB connectors are IP67 open face rated and IP68 in the mated condition for complete protection in harsh environments. SuperSeal connector styles include plug, wall mount and jam-nut receptacles. Wall mount receptacles are available with slotted holes and straight cable exit. USB 2.0 can be ordered in horizontal or vertical orientation to provide further security against mis-mating and conform to existing USB orientations. Please consult factory for custom configurations.

All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

Material and Finish	
<b>NF</b>	Aluminum/cadmium, olive drab
<b>ME</b>	Aluminum/electroless nickel
<b>ZR</b>	Zinc nickel, black (tri-valent chromium) RoHS compliant
<b>XM</b>	Composite/electroless nickel
<b>ZI</b>	Stainless steel / passivate
<b>AB</b>	Marine bronze/none

Part Number Development							
<b>Sample Part Number</b>	<b>2330-0069</b>	<b>M</b>	<b>07</b>	<b>N</b>	<b>H</b>	<b>A</b>	<b>-XX</b>
<b>Basic Number</b>	<b>2330-0069</b>						
<b>P1 Finish</b>	See Material and Finish table						
<b>P1 Connector Style</b>	<b>07</b> = Receptacle, Jam Nut <b>00</b> = Square Flange w/ Slotted Holes <b>D0</b> = Square Flange with Round Holes <b>G6</b> = Plug						
<b>Polarization</b>	<b>A, B, C, D, E, N</b> = Normal						
<b>P1 USB 2.0 Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical						
<b>P2 Connector Style</b>	<b>A</b> = USB 2.0 Type A plug <b>B</b> = USB 2.0 Type B plug						
<b>Overall Length</b>	<b>12</b> = 12 inches <b>24</b> = 24 inches <b>XX</b> = XX inches (197 Inches max.)						

**NOTES**

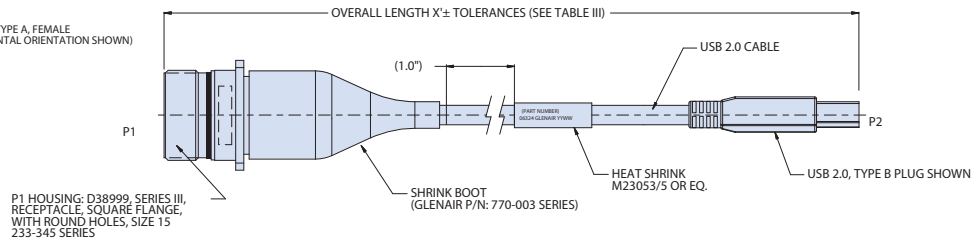
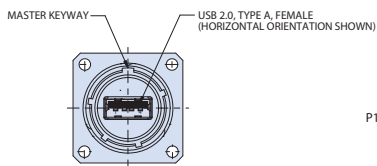
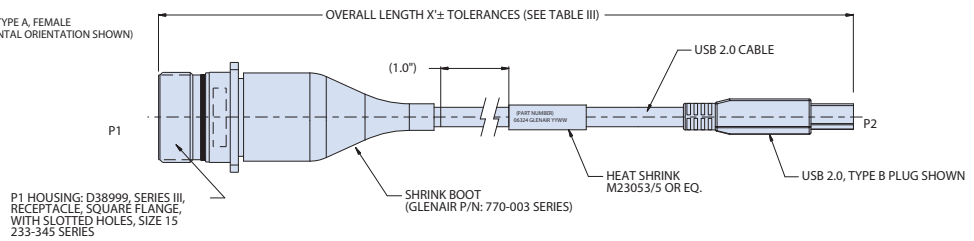
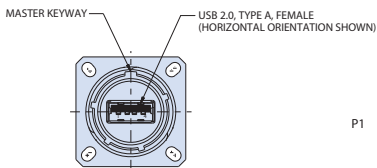
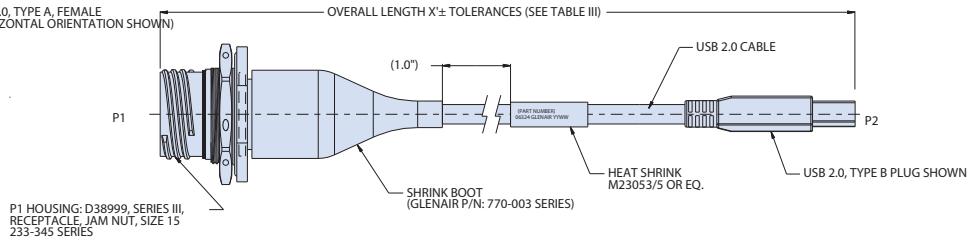
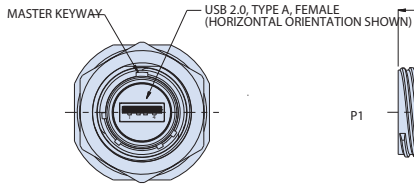
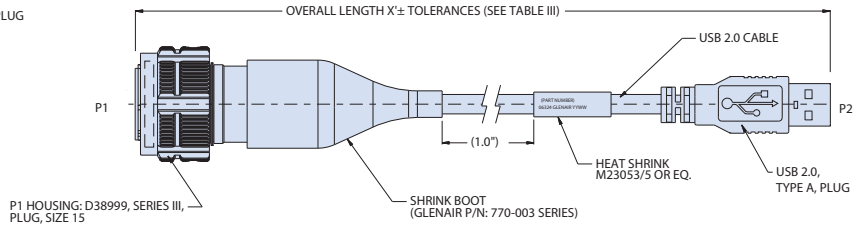
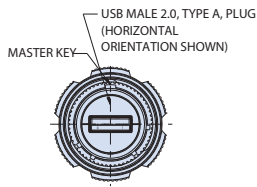
1. Interpret drawing per ASME Y14.5 - 2009
2. USB 2.0 Electrical specifications:  
DWV 500 VAC  
I.R. 100 Megohms min.
3. Meets IP67 in unmated condition, IP68 mated
4. Cable assembly to be tested 100% for electrical shorts, continuity, IR, and DWV.  
100% functional USB testing per ATP-555



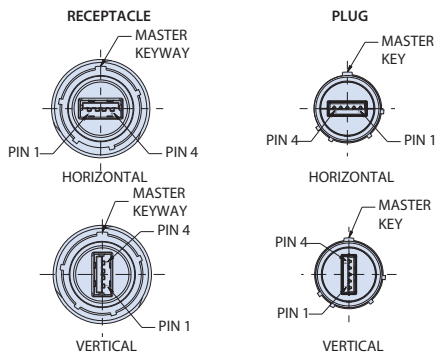
# USB 2.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

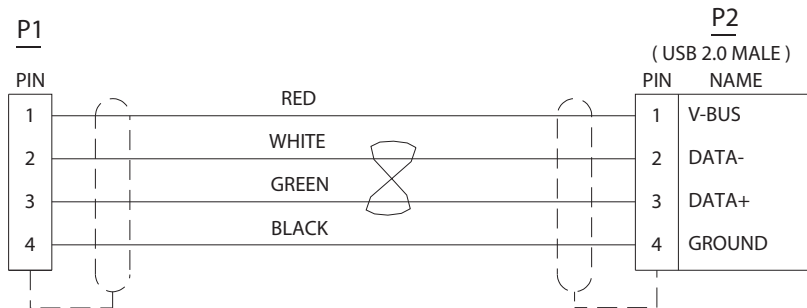
### 2330-0069 USB 2.0 Cable assembly



USB 2.0 ORIENTATION OPTIONS (P1)  
(PARTIAL FRONT VIEWS SHOWN)



## WIRING DIAGRAM







# USB 2.0 TYPE A CONNECTORS

# MIL-DTL-38999 Series III Type Connectors



## 2330-0015 USB 2.0 Cable assembly



### 2330-0015 Glenair SuperSeal™ USB 2.0 cable jumpers, with SuperNine® connectors to standard USB Type A plug

SuperSeal USB connectors are IP67 open face rated and IP68 in the mated condition for complete protection in harsh environments. SuperSeal connector styles include plug, wall mount and jam-nut receptacles. Wall mount receptacles are available with slotted holes and straight cable exit. USB 2.0 can be ordered in horizontal or vertical orientation to provide further security against mis-mating and conform to existing USB orientations. Please consult factory for custom configurations.

All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

Material and Finish	
NF	Aluminum/cadmium, olive drab
ME	Aluminum/electroless nickel
ZR	Zinc nickel, black (tri-valent chromium) RoHS compliant

Connector Style	
G6	Plug
07	Rear panel mount, jam nut receptacle
00	Wall mount receptacle with slotted holes <sup>2</sup>
CM	Receptacle, wall mount, with metric clinch nuts
D0	Receptacle, wall mount, with slotted holes

### NOTES

- See Section A for panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- Standard configurations provided with potted back end
- SuperSeal plug houses USB plug. Superseal receptacle houses USB receptacle

Part Number Development												
Sample Part Number	2330-0015	NF	D0	S	-15	2	A	N	H	A	S	-03
Basic Number	2330-0015											
P1 Finish	See Material and Finish table											
P1 Connector Style <sup>1</sup>	See Connector Style table											
P1 Cable Exit	S = Staight											
Shell Size	15											
USB Performance	2 = USB 2.0											
USB Interface	A = Type A											
Polarization	A, B, C, D, E, N = Normal											
USB Orientation	H = Horizontal V = Vertical											
P2 Connector Style	A - Type A USB plug Omit = Flying leads											
P2 Cable Exit	S = Straight Omit = Flying leads											
Standard Lengths	See Table I											

For custom configurations please consult factory.

TABLE I: Overall Length Tolerances		
Dash No.	Overall Length (Feet)	Tolerances
01	1.0	+1"/-0
02	2.0	+2"/-0
03	3.0	
04	5.0	
05	7.0	+4"/-0
06	10.0	
07	15.0	+6"/-0



# USB 2.0 TYPE A CONNECTORS

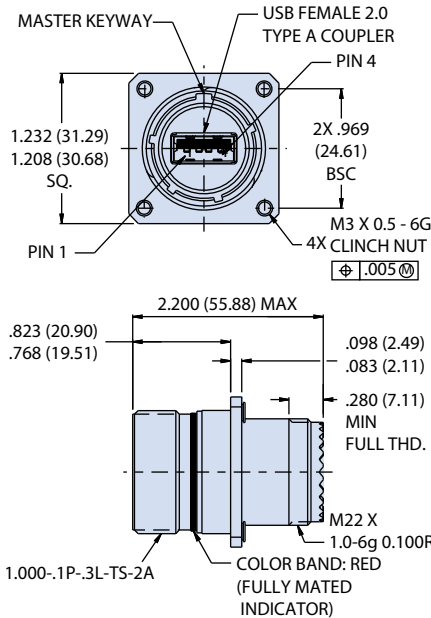
## MIL-DTL-38999 Series III Type Connectors



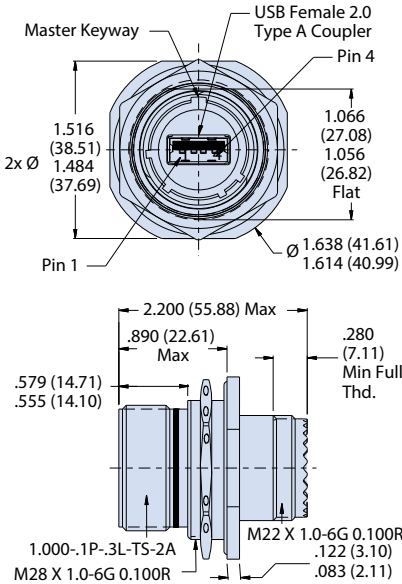
### 2330-0015 USB 2.0 Cable assembly

#### AVAILABLE P1 CONNECTOR DIMENSIONS, SHELL SIZE 15

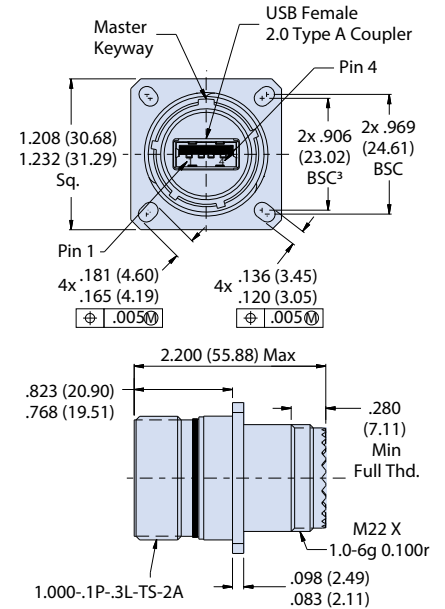
**CM - Wall Mount Receptacle with Metric Clinch Nuts**



**07 Receptacle, Jam-Nut Mount**

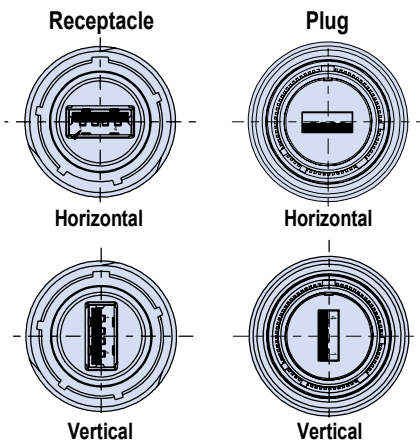


**00 Receptacle, Wall Mount with Slotted Holes**



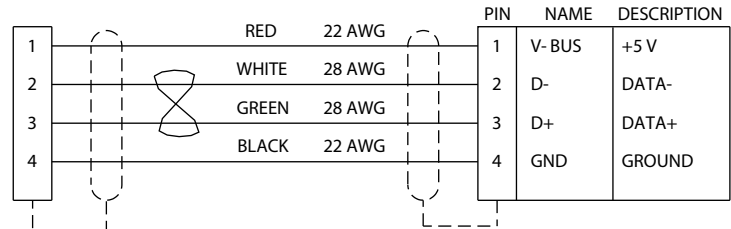
#### WIRING DIAGRAM

##### USB Orientation Options (Partial Views Shown)



##### P1 (D38999 CONNECTOR INTERFACE)

##### P2 (USB 2.0 TYPE A MALE)

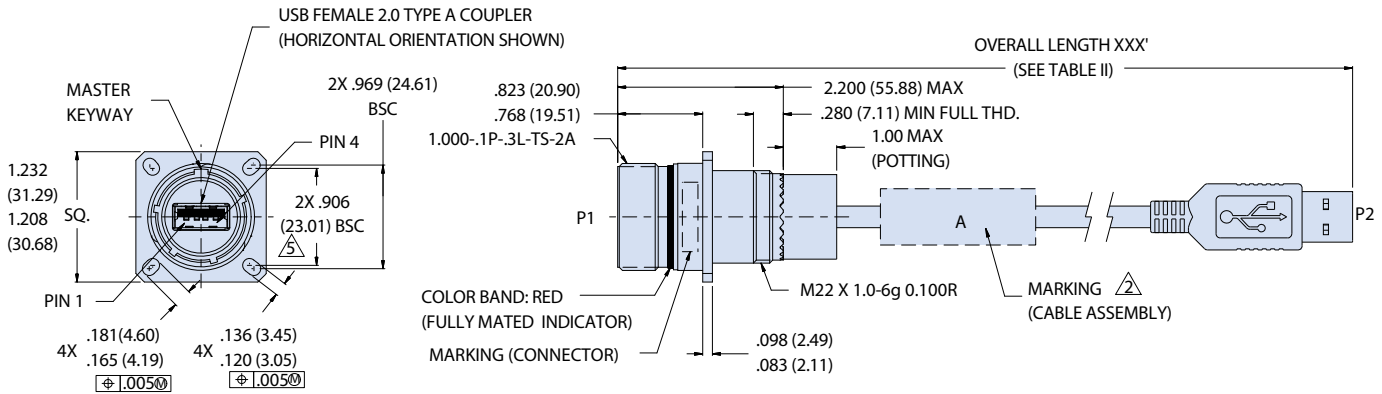




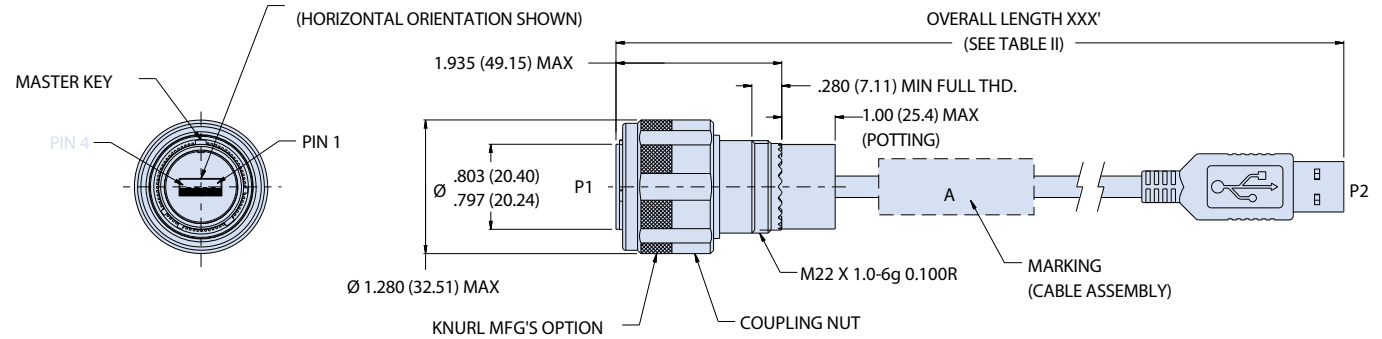
USB 2.0 TYPE A CONNECTORS  
 MIL-DTL-38999 Series III Type Connectors  
 2330-0015 USB 2.0 Cable assembly



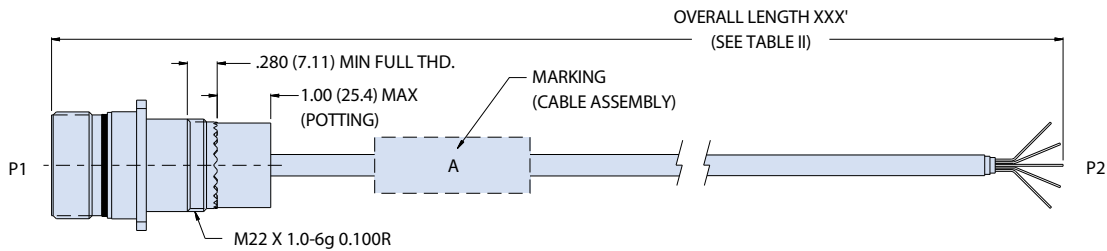
**00 WALL MOUNT RECETPALE WITH SLOTTED HOLES (STRAIGHT SYTLE SHOWN)**



**G6 PLUG (STRAIGHT STYLE SHOWN)**



**00, D0, CM, 07 RECEPTACLE & G6 PLUG (FLYING LEADS SHOWN)**





USB 3.0 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors



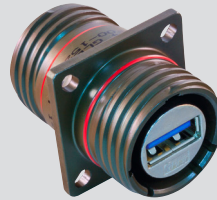
Product Selection Guide



233-350

C-22

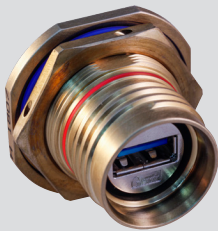
SuperSeal™ Panel Mount USB 3.0 Receptacle Connectors



233-355

C-32

SuperSeal USB 3.0 Female-to-Female Feed-thru Coupler



233-352

C-24

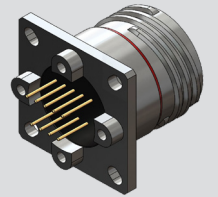
SuperSeal Receptacle with USB 3.0 Female Interface to PC Tail Termination



233-358

C-34

SuperSeal Plug Adapter for USB 3.0 Terminated Cordset



233-357

C-26

SuperSeal Panel Mount Receptacles with USB 3.0 to PC Tail Termination and Threaded Standoff



2330-0445

C-35

SuperSeal USB 3.0 Cable Assembly



233-353

C-28

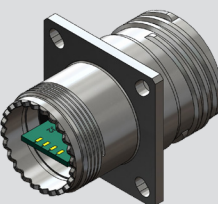
SuperSeal Receptacle with USB 3.0 Female Interface to Solder Cup Termination



2330-0445

C-37

SuperSeal USB 3.0 Cable Assembly with active repeater



233-354

C-30

SuperSeal Panel Mount Receptacles with USB 3.0 to Breakout Board Termination and Accessory Threads



233-92

C-38

SuperSeal USB 3.0 Memory Stick





# USB 3.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



233-350 Panel mount receptacle couplers with accessory threads



Part Number Development								
Sample Part Number	233-350	NF	00	-15	3	A	N	H
Basic Number	233-350							
Finish	See Material and Finish table							
Connector Style <sup>1</sup>	See Connector Style table							
Shell Size	15							
USB Performance	3 = USB 3.0							
USB Interface (Front and Back)	A = Type A							
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999							
USB Orientation	H = Horizontal V = Vertical							
Shrink Boot	T = Part No. 770-028 (Omit for None)							

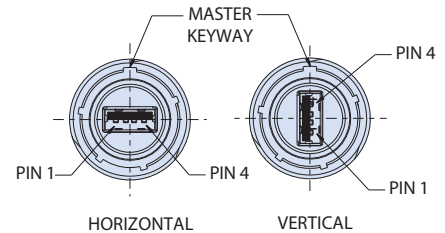
Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel
AB	Marine Bronze
XM	Composite/Electroless Nickel

Additional material / finish options available consult factory

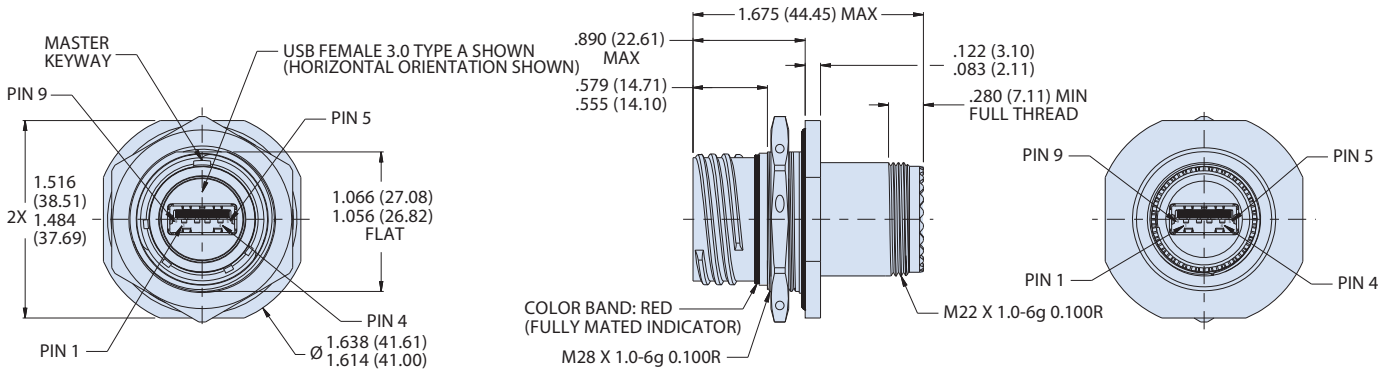
Connector Style	
07	Rear panel mount, jam nut receptacle
00	Wall mount receptacle with slotted holes
D0	Wall mount receptacle with thru-holes
CM	Wall mount receptacle with metric clinch nuts

All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

### USB Receptacle Orientation Options



### 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE



### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- USB female port, front and back
- Front panel mount only
- Material and Finish
  - Shell, jam nut: al alloy
  - Insulators: high grade rigid dielectric/n.a.
  - Contacts: copper alloy, gold plated
  - Seals: silicone based elastomer
- USB (shell/contacts): copper alloy
- Dielectric: hi-temp thermoplastic PA9T UL94V-0
- Hardware: stainless steel /passivated



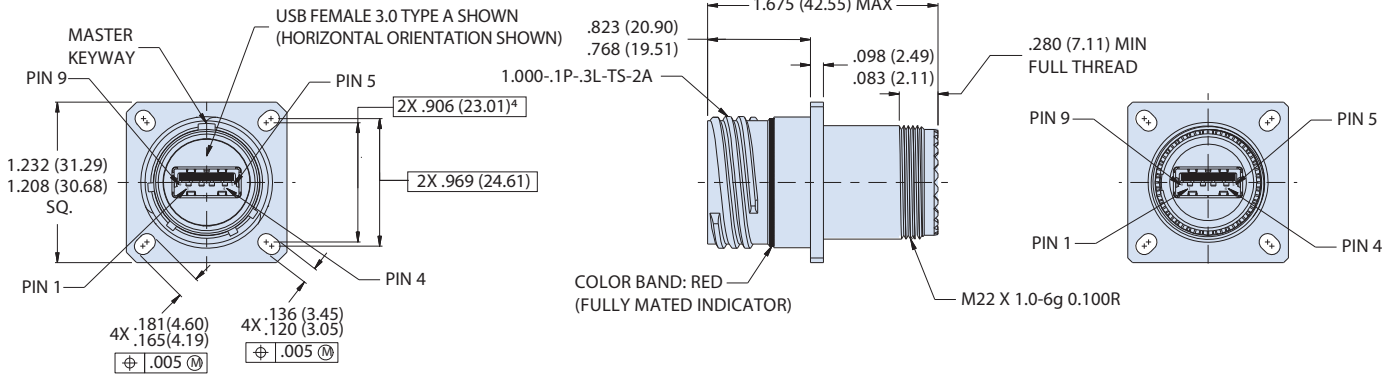
USB 3.0 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors

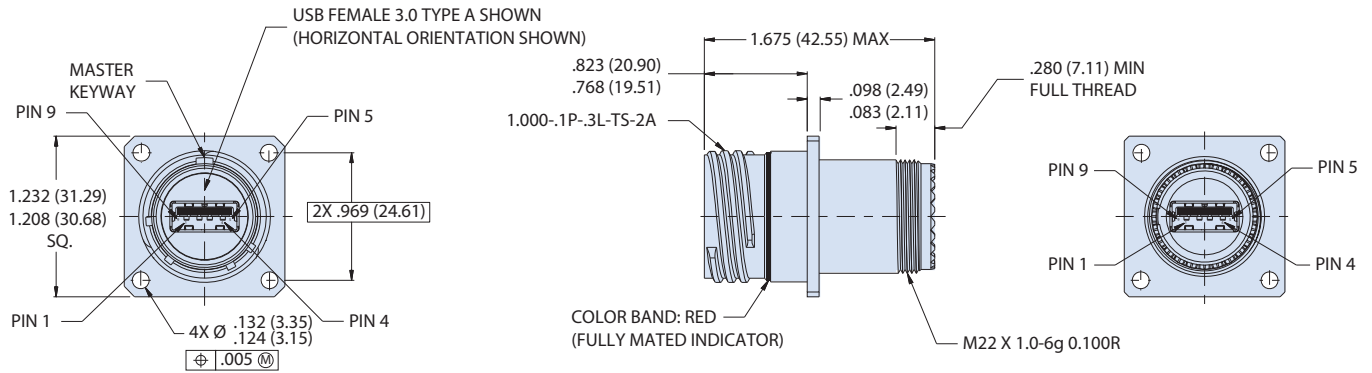


233-350 Panel mount receptacle couplers with accessory threads

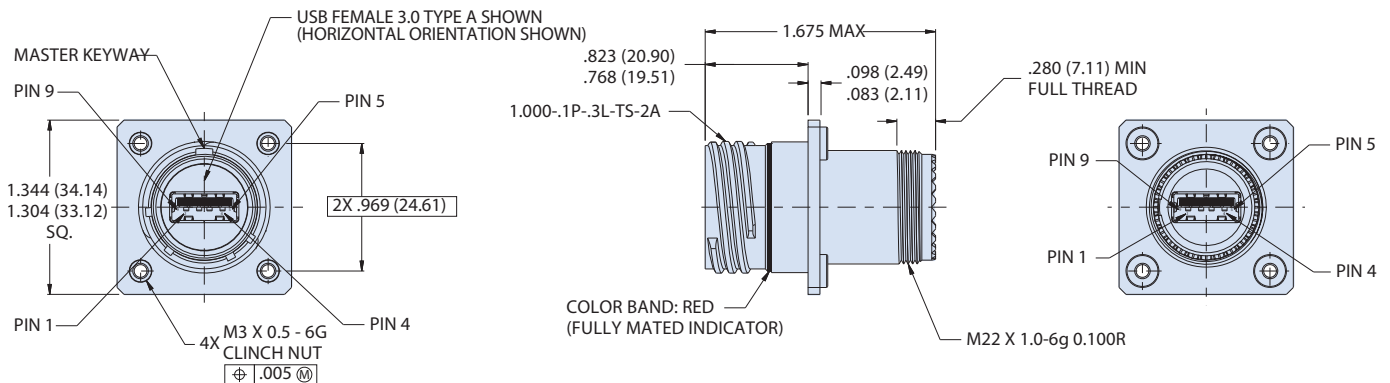
**00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES**



**DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES**



**CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS**







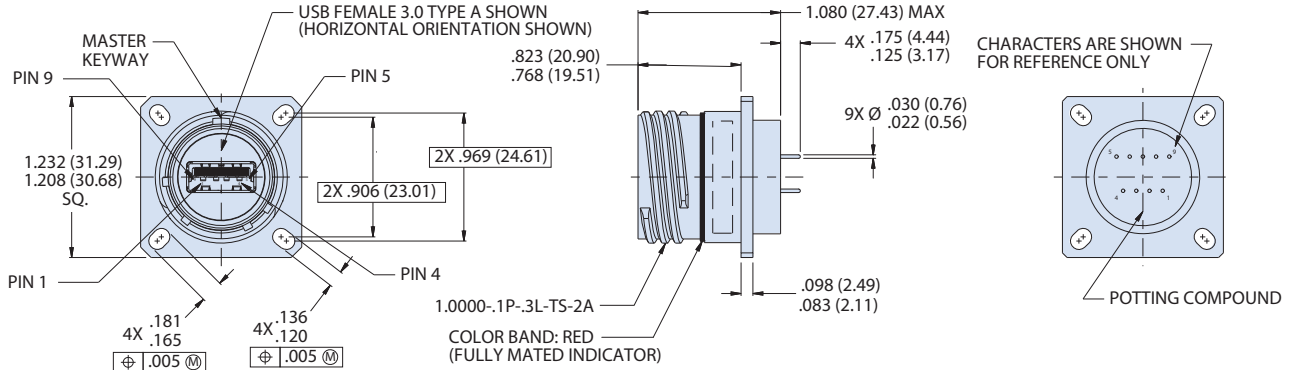
# USB 3.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

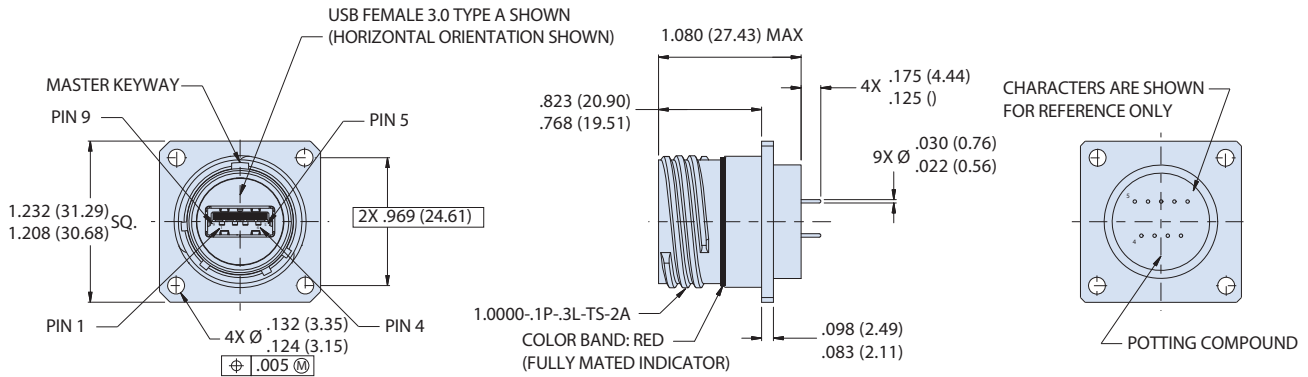


### 233-352 Panel mount receptacles with PC tails

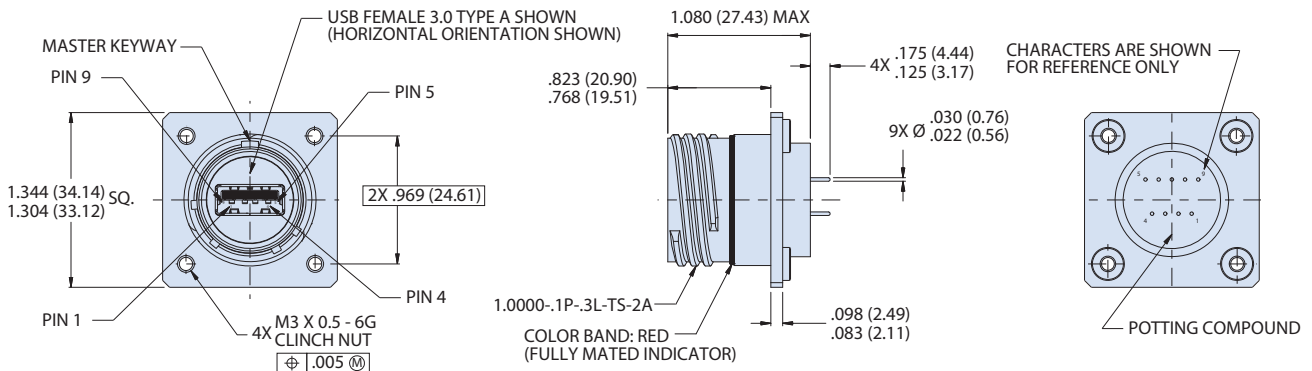
#### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES



#### DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES



#### CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS





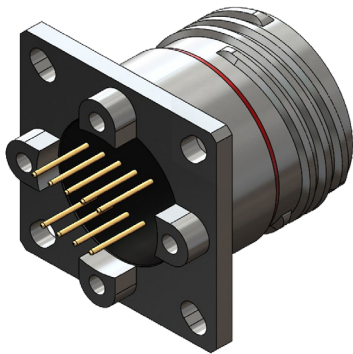


# USB 3.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



233-357 Panel mount receptacles with PC tails and threaded stand-offs



Part Number Development								
Sample Part Number	233-357	NF	00	-15	3	A	N	H
Basic Number	233-357							
Finish	See Material and Finish table							
Connector Style <sup>1</sup>	See Connector Style table							
Shell Size	15							
USB Performance	3 = USB 3.0							
USB Interface (Front and Back)	A = Type A							
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999							
USB Orientation	H = Horizontal V = Vertical							

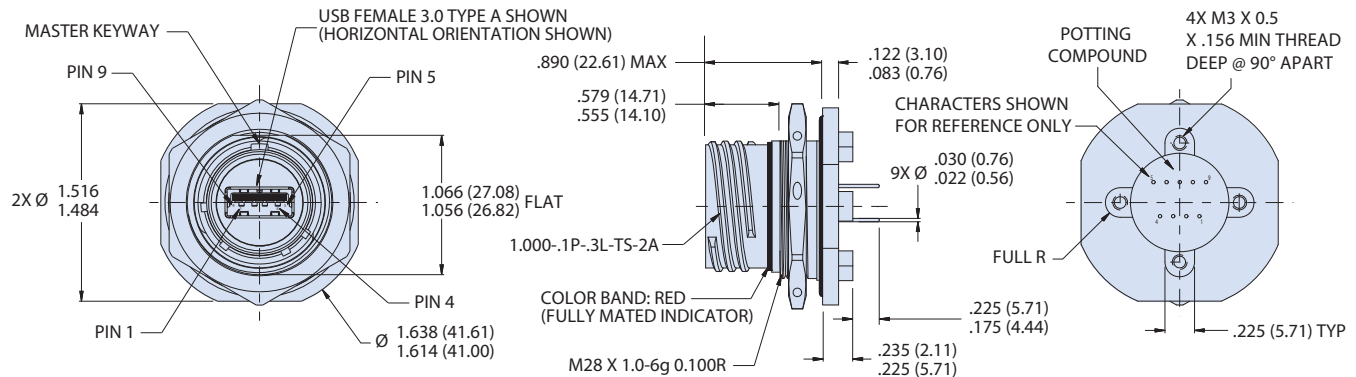
Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel
AB	Marine Bronze
XM	Composite/Electroless Nickel

Additional material / finish options available consult factory

Connector Style	
07	Rear panel mount, jam nut receptacle
00	Wall mount receptacle with slotted holes
D0	Wall mount receptacle with thru-holes
CM	Wall mount receptacle with metric clinch nuts

All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

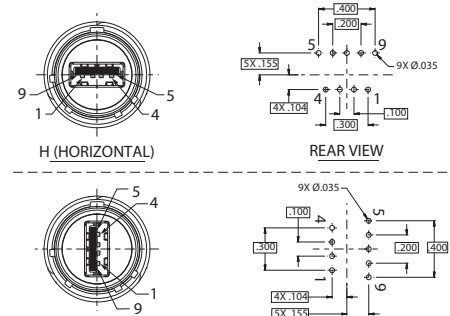
### 07 - JAM-NUT MOUNT RECEPTACLE



### NOTES

- See Section A for polarization / panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- USB female port, front
- Material and Finish
  - Shell, jam nut: aluminum alloy
  - Insulators: high grade rigid dielectric/n.a.
  - Contacts: copper alloy, gold plated
  - Seals: silicone based elastomer
  - USB (shell/contacts): copper alloy
  - Dielectric: hi-temp thermoplastic PA9T UL94V-0
  - Hardware: stainless steel /passivated

### Solder Cup Positions





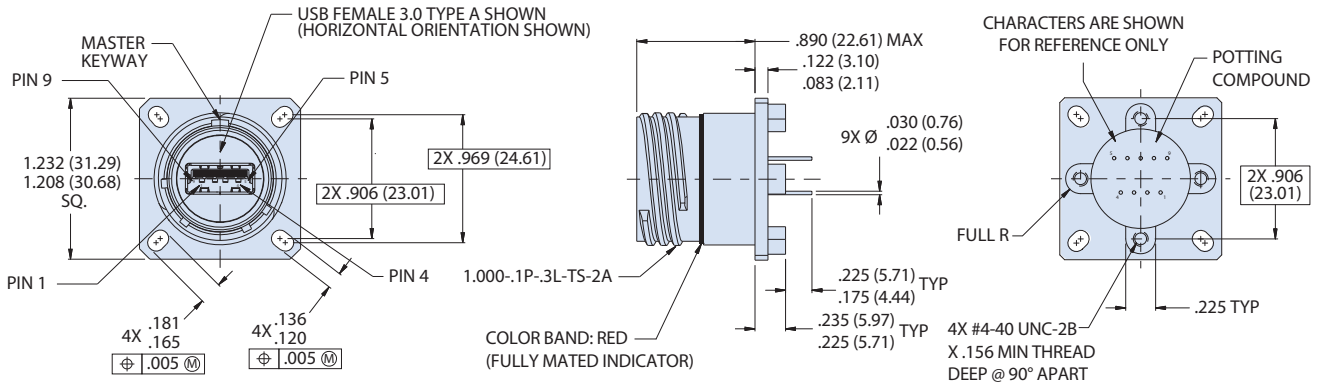
# USB 3.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

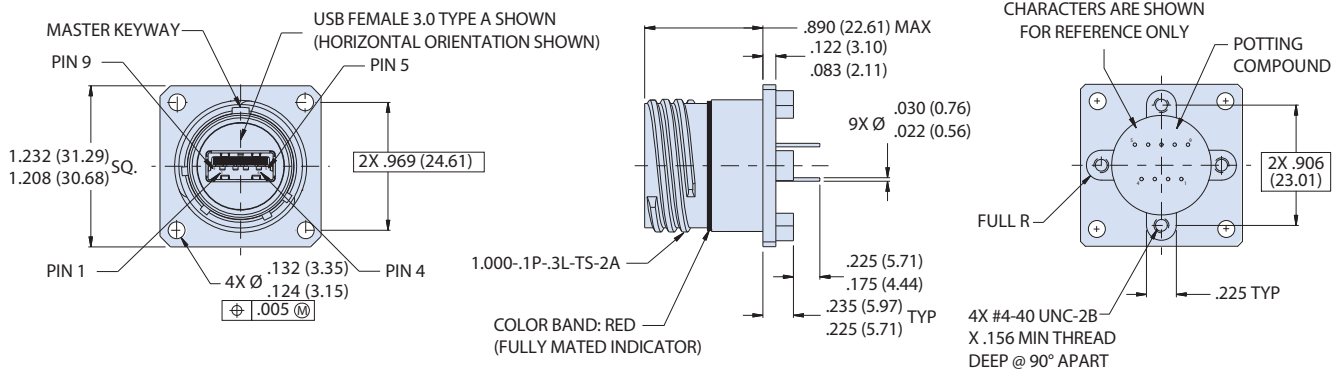


233-357 Panel mount receptacles with PC tails and threaded stand-offs

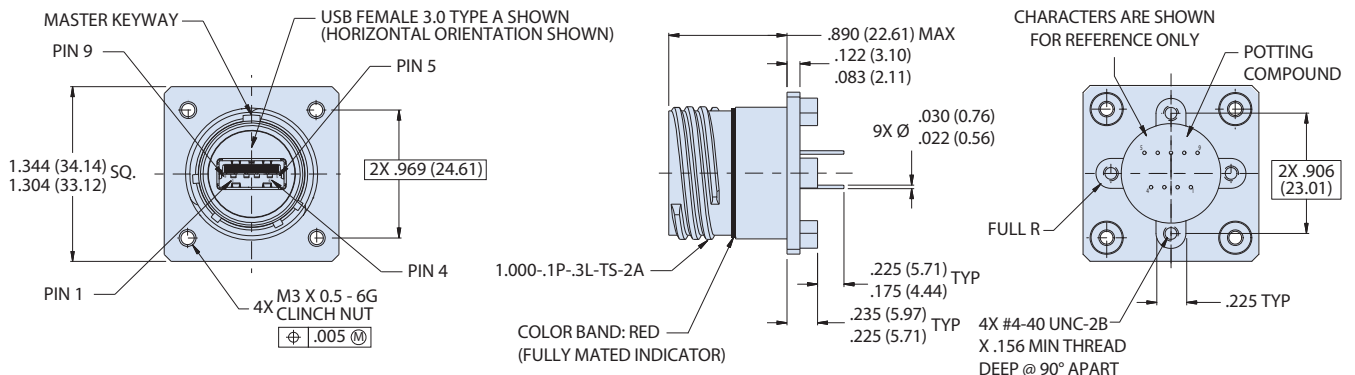
### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES



### DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES



### CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS





# USB 3.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

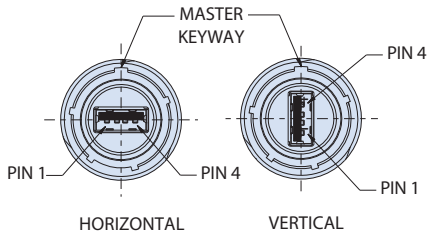


### 233-353 Panel mount receptacles with solder cups



Part Number Development								
Sample Part Number	233-353	NF	00	-15	3	A	N	H
Basic Number	233-353							
Finish	See Material and Finish table							
Connector Style <sup>1</sup>	See Connector Style table							
Shell Size	15							
USB Performance	3 = USB 3.0							
USB Interface (Front and Back)	A = Type A							
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999							
USB Orientation	H = Horizontal V = Vertical							

#### USB Receptacle Orientation Options

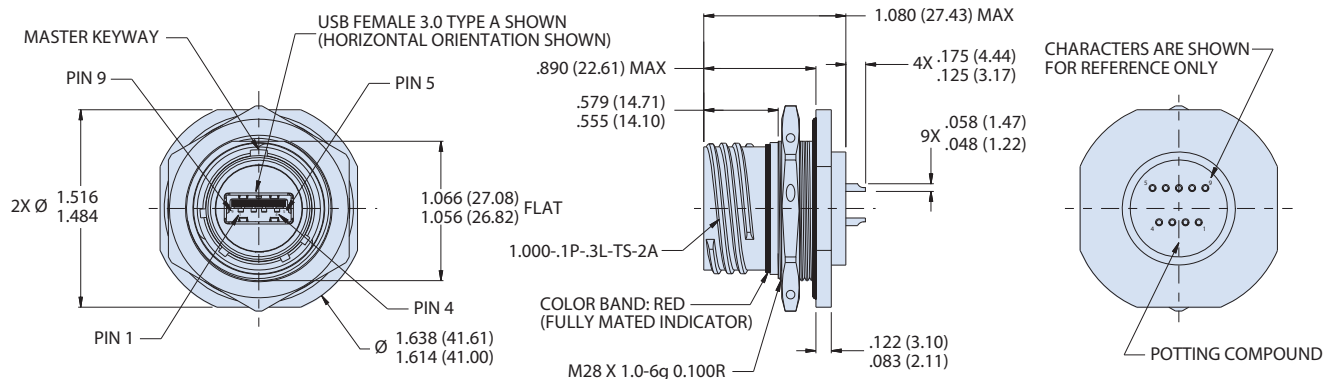


Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel
AB	Marine Bronze
XM	Composite/Electroless Nickel

Additional material / finish options available consult factory

Connector Style	
07	Rear panel mount, jam nut receptacle
00	Wall mount receptacle with slotted holes
D0	Wall mount receptacle with thru-holes
CM	Wall mount receptacle with metric clinch nuts

#### 07 - JAM-NUT MOUNT RECEPTACLE



#### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- USB female port, front
- Rear panel mount only
- Material and Finish
  - Shell, jam nut: al alloy
  - Insulators: high grade rigid dielectric/n.a.
  - Contacts: copper alloy, gold plated
  - Seals: silicone based elastomer

- USB (shell/contacts): copper alloy
- Dielectric: hi-temp thermoplastic PA9T UL94V-0
- Hardware: stainless steel /passivated

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

USB 3.0 Wiring		
Pin	Name	Description
1	(V BUS)	+5 V
2	(D-)	USB 2.0 Data
3	(D+)	
4	(GND)	Ground
5	(RX-)	Receiver
6	(RX+)	Receiver
7	(GND)	Ground
8	(TX-)	Transmitter
9	(TX+)	Transmitter



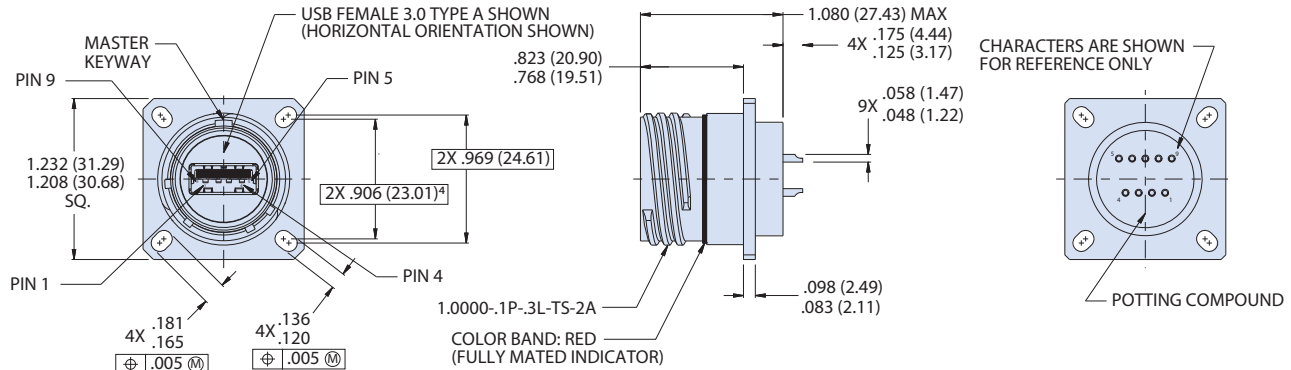
# USB 3.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

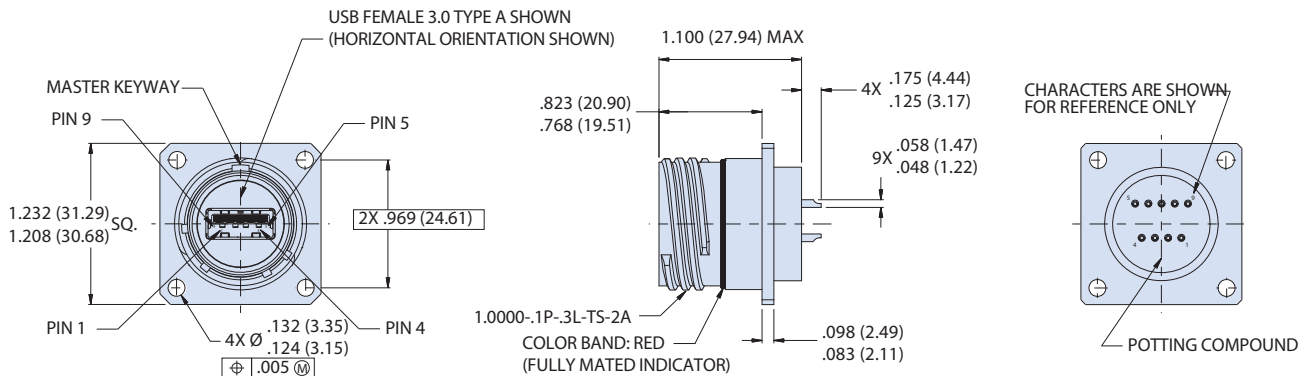


### 233-353 Panel mount receptacles with solder cups

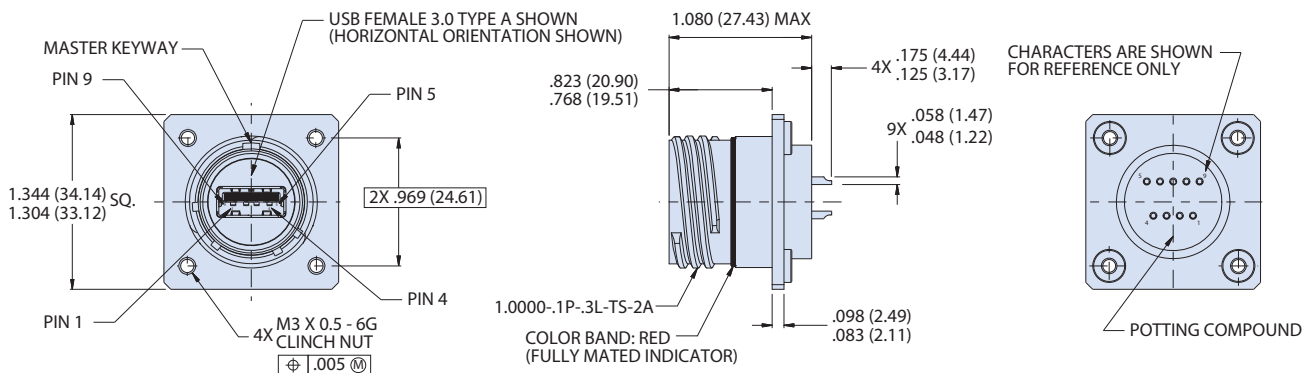
#### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES



#### DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES



#### CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



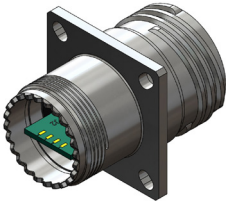


# USB 3.0 TYPE A CONNECTORS

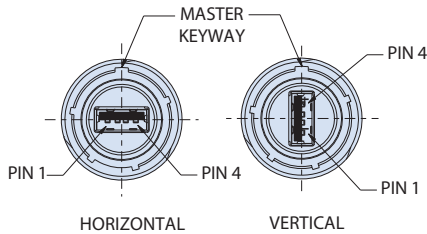
## MIL-DTL-38999 Series III Type Connectors



### 233-354 Panel mount receptacles with breakout board



#### USB Receptacle Orientation Options



Part Number Development								
Sample Part Number	233-354	NF	00	-15	3	A	N	H
Basic Number	233-354							
Finish	See Material and Finish table							
Connector Style <sup>1</sup>	See Connector Style table							
Shell Size	15							
USB Performance	3 = USB 3.0							
USB Interface (Front and Back)	A = Type A							
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999							
USB Orientation	H = Horizontal V = Vertical							

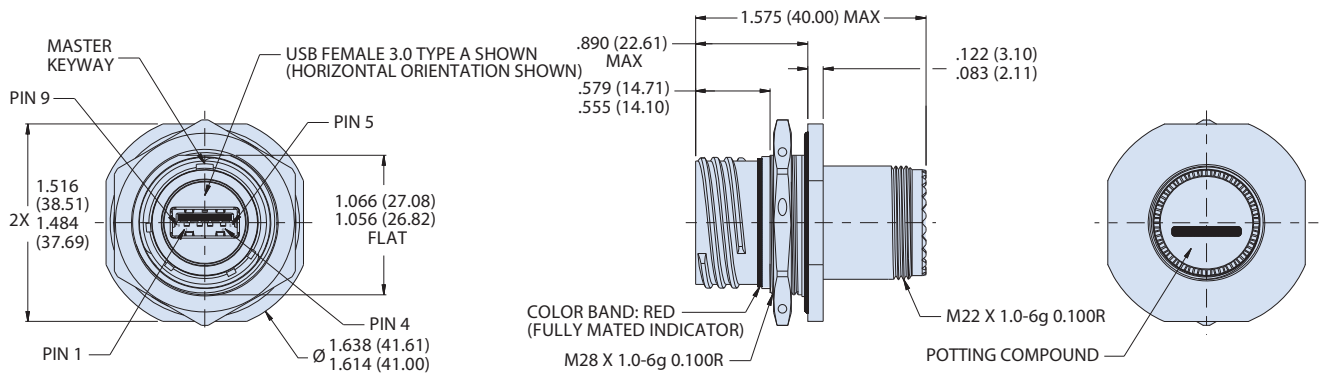
Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel
AB	Marine Bronze
XM	Composite/Electroless Nickel

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
M	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel

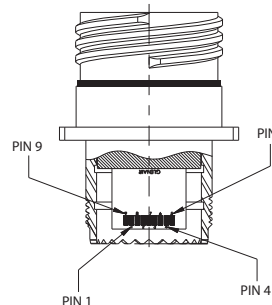
Additional material / finish options available consult factory

## 07 - JAM-NUT MOUNT RECEPTACLE



### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- USB female port, front
- Material and Finish
  - Shell, jam nut: al alloy
  - Insulators: high grade rigid dielectric/n.a.
- Contacts: copper alloy, gold plated
- Seals: silicone based elastomer
- USB (shell/contacts): copper alloy
- Dielectric: hi-temp thermoplastic PA9T UL94V-0
- Hardware: stainless steel / passivated



USB 3.0 Wiring		
Pin	Name	Description
1	(V BUS)	+5 V
2	(D-)	USB 2.0 Data
3	(D+)	
4	(GND)	Ground
5	(RX-)	Receiver
6	(RX+)	Receiver
7	(GND)	Ground
8	(TX-)	Transmitter
9	(TX+)	Transmitter



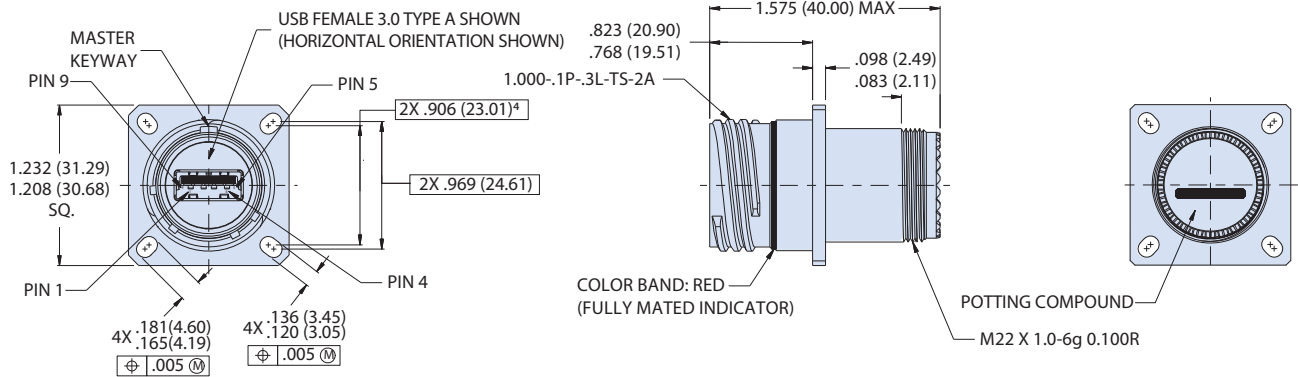
USB 3.0 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors

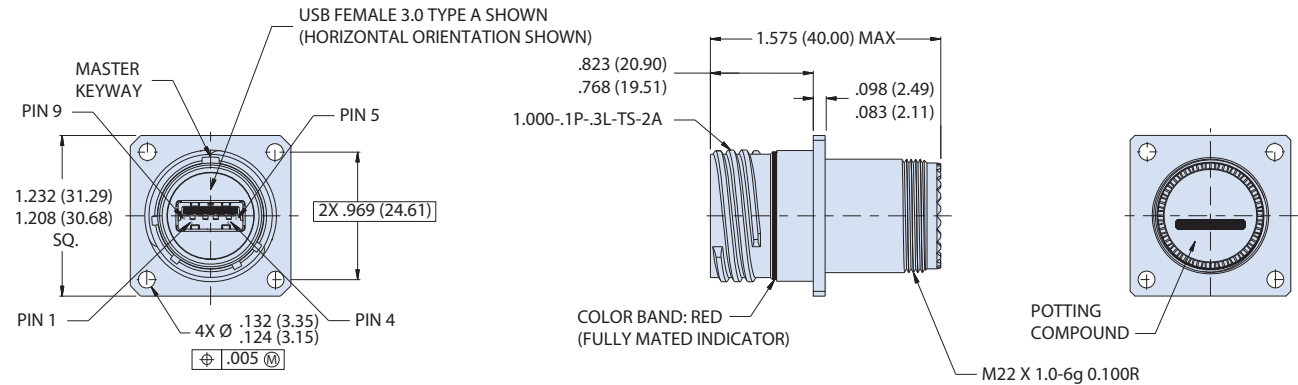


233-354 Panel mount receptacles with breakout board

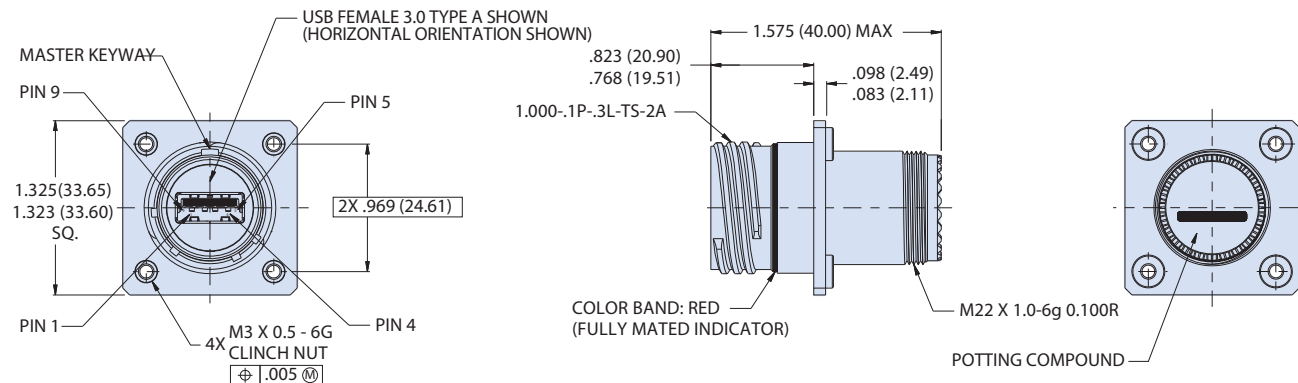
**00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES**



**DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES**



**CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS**





# USB 3.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 233-355 Panel mount feed-through connectors



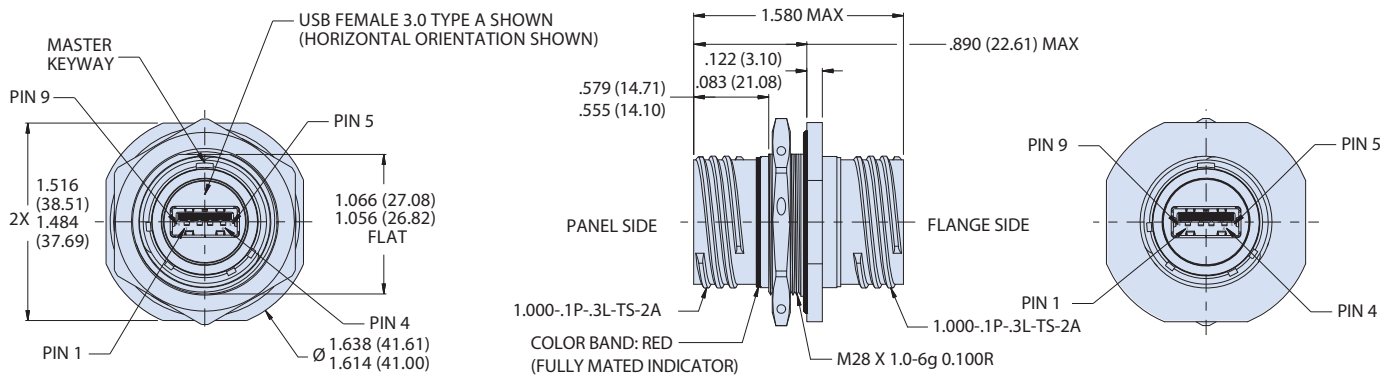
Part Number Development								
Sample Part Number	233-355	NF	00	-15	3	A	N	H
Basic Number	233-355							
Finish	See Material and Finish table							
Connector Style <sup>1</sup>	See Connector Style table							
Shell Size	15							
USB Performance	3 = USB 3.0							
USB Interface (Front and Back)	A = Type A							
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999							
USB Orientation	H = Horizontal V = Vertical							

Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel

Connector Style	
07	Rear panel mount, jam nut receptacle
00	Wall mount receptacle with slotted holes
DO	Wall mount receptacle with thru-holes
CM	Wall mount receptacle with metric clinch nuts

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

### 07 - JAM-NUT MOUNT RECEPTACLE

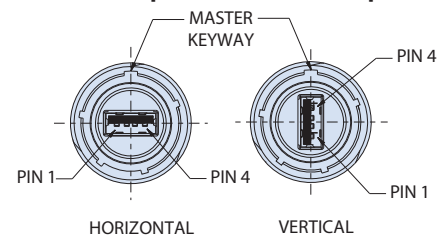


### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- USB female port, front
- Material and Finish
  - Shell, jam nut: al alloy
  - Insulators: high grade rigid dielectric/n.a.
  - Contacts: copper alloy, gold plated
  - Seals: silicone based elastomer

- USB (shell/contacts): copper alloy
- Dielectric: hi-temp thermoplastic PA9T UL94V-0
- Hardware: stainless steel /passivated

### USB Receptacle Orientation Options





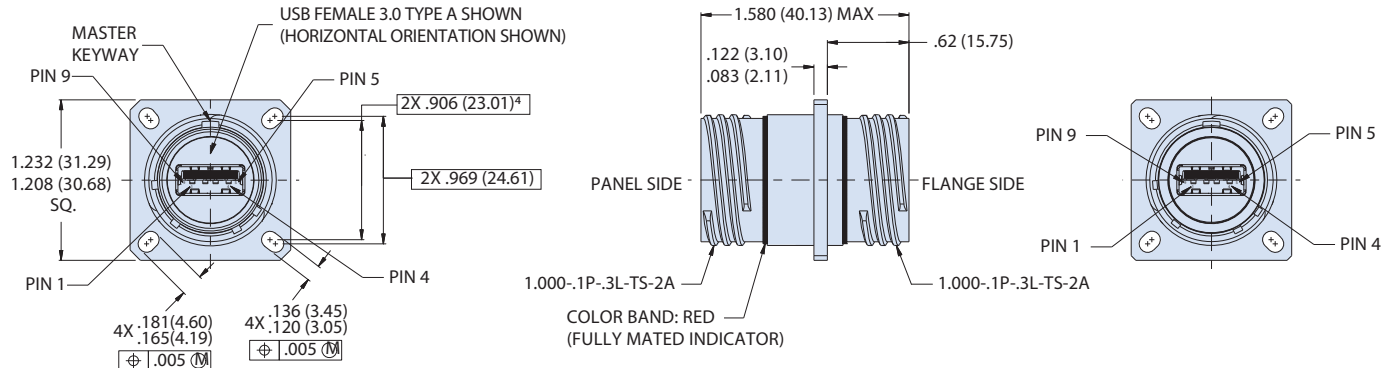
USB 3.0 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors

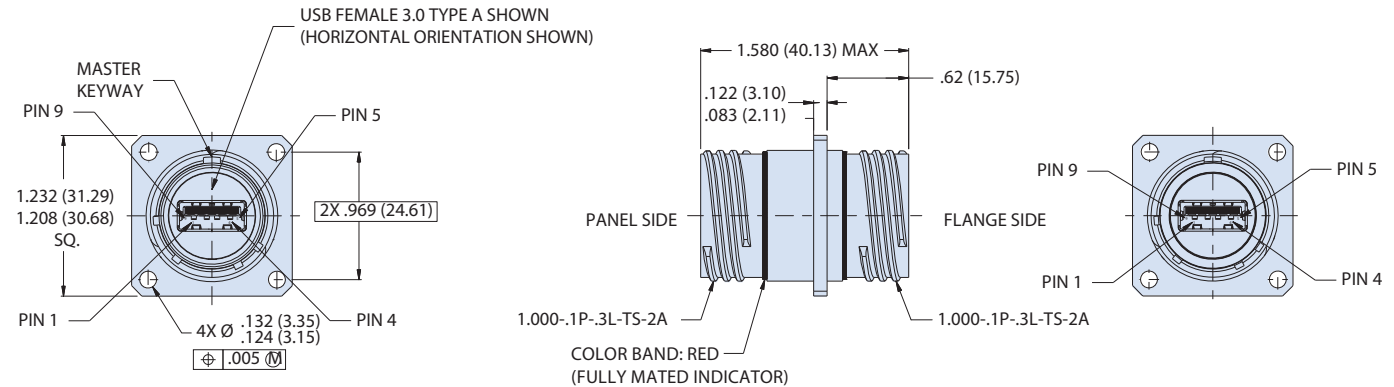


233-355 Panel mount feed-through connectors

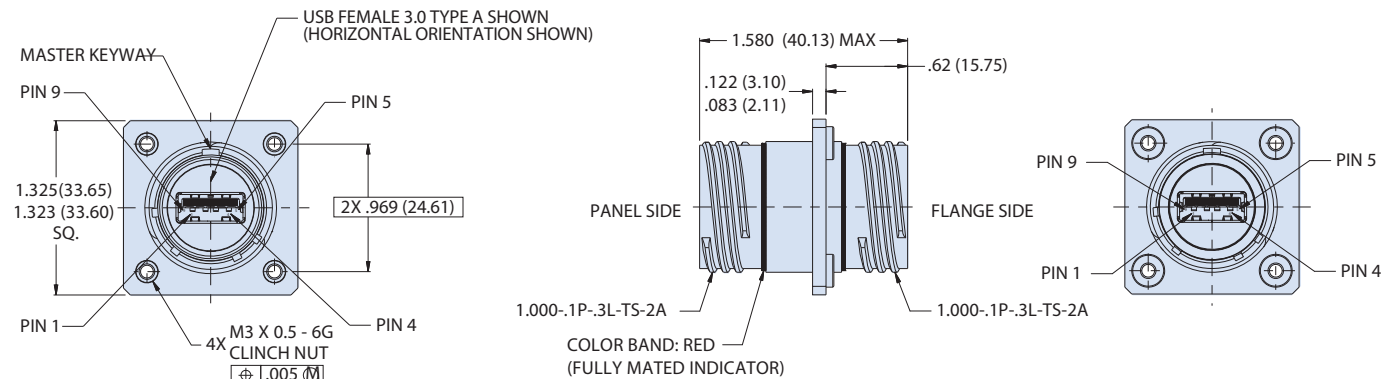
**00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES**



**DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES**



**CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS**







# USB 3.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



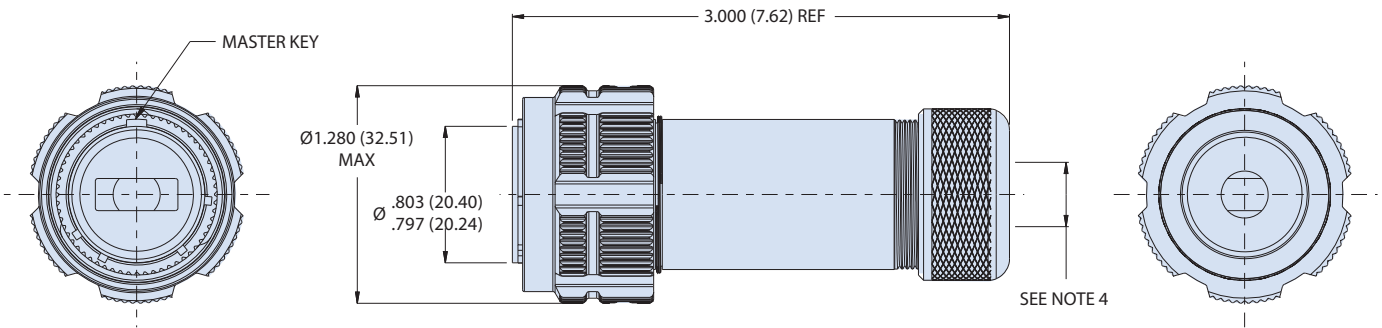
### 233-358 Plug USB cord adapter



Part Number Development						
Sample Part Number	233-358	NF	G6	-15	N	H
Basic Number	233-358					
Finish	See Material and Finish table					
Connector Style <sup>1</sup>	G6 = plug					
Shell Size	15					
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999					
USB Orientation	H = Horizontal V = Vertical					

Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
M	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel

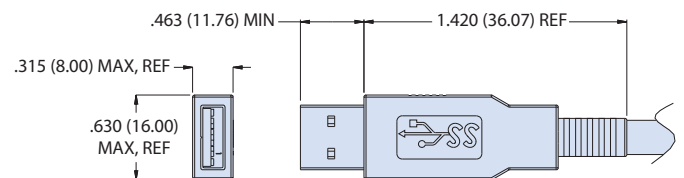
*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*



#### NOTES

- See Section A for polaziation / panel cutout dimensions
- Meets IP68 in mated condition, IP68 mated condition
- Accommodates USB 3.0 patch cords with Type A plug interface
- Accommodates cable outside diameter 0.118 (2.997) to 0.243 (6.172)
- USB female port, front
- Material and Finish
  - Shell, coupling nut: aluminum alloy (composite coupling nut no plating required)
  - Insulators: high grade rigid dielectric/n.a.
  - Seals: silicone based elastomer
  - USB adapter housing: UL94V-0 compliant ABS or PPS
  - Hardware: stainless steel /passivated

#### RECOMMENDED USB TYPE A PLUG DESIGN





USB 3.0 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors



2330-0445 USB 3.0 Cable assembly



2330-0445 Glenair SuperSeal™ USB 3.0 cable jumpers, with SuperNine® connectors to standard USB Type A plug

SuperSeal USB connectors are IP67 open face rated and IP68 in the mated condition for complete protection in harsh environments. SuperSeal connector styles include plug, wall mount and jam-nut receptacles. USB 3.0 can be ordered in horizontal or vertical orientation to provide further security against mismatching and conform to existing USB orientations. Please consult factory for custom configurations.

All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

Material and Finish	
NF	Aluminum/cadmium, olive drab
ME	Aluminum/electroless nickel
ZR	Zinc nickel, black (tri-valent chromium) RoHS compliant

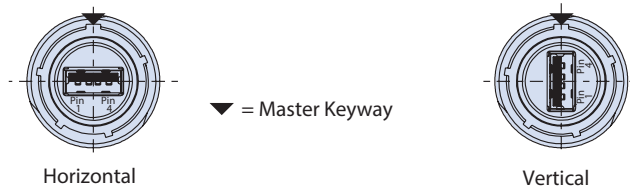
Connector Style	
G6	Plug
07	Rear panel mount, jam nut receptacle
00	Wall mount receptacle with slotted holes <sup>2</sup>

Part Number Development									
Sample Part Number	2330-0445	NF	07	-15	3	A	N	H	-03
Basic Number	2330-0445								
P1 Finish	See Material and Finish table								
P1 Connector Style <sup>1</sup>	See Connector Style table								
P1 Shell Size	15								
USB Performance	3 = USB 3.0								
USB Interface	A = Type A								
Polarization	N = Normal								
USB Orientation	H = Horizontal V = Vertical								
Overall Length	01, 02, 03, 06 and 10 feet in length. For lengths longer than 10 feet use 2330-0450 repeaters for optimal performance								

NOTES

1. See Section A for panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. USB 3.0 Specifications  
DWV: 100 VAC (RMS)  
IR: 100 Megohms minimum  
Operating Temperature: 20°C to +85°C
4. Standard configurations provided with adhesive lined shrink boot
5. SuperSeal plug houses USB plug.  
Superseal receptacle houses USB receptacle

USB Receptacle Orientation Options (Partial Views Shown)

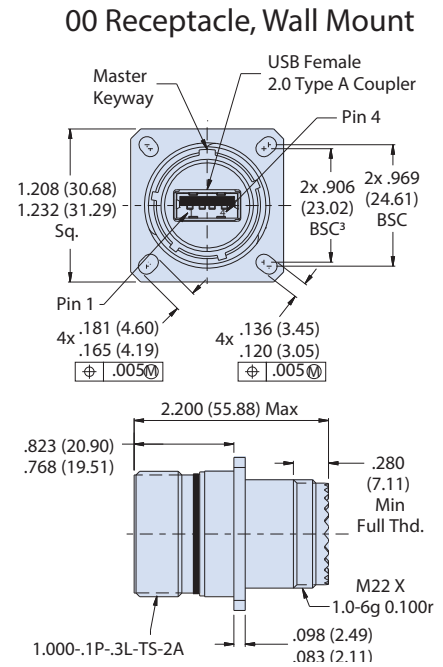
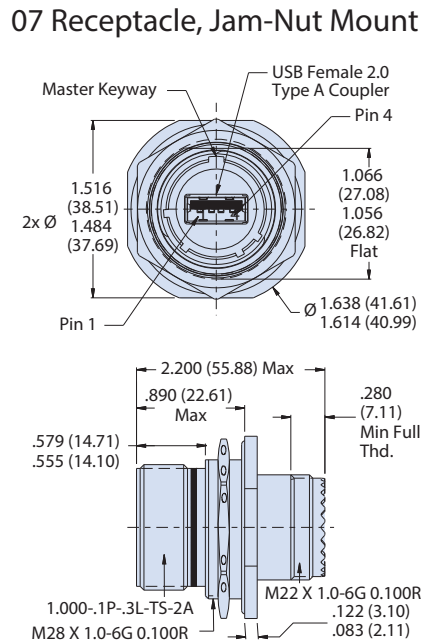
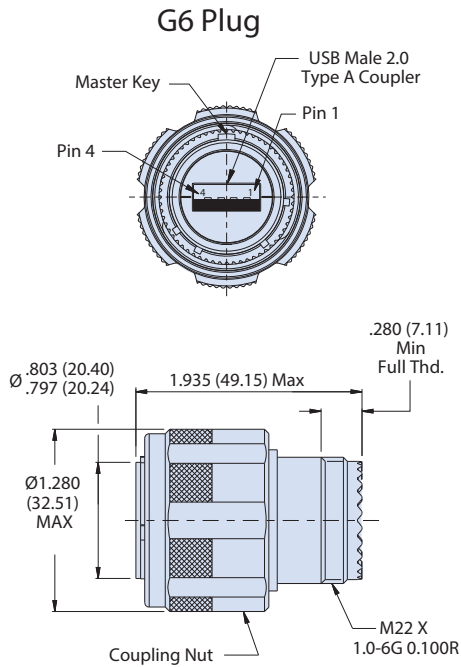




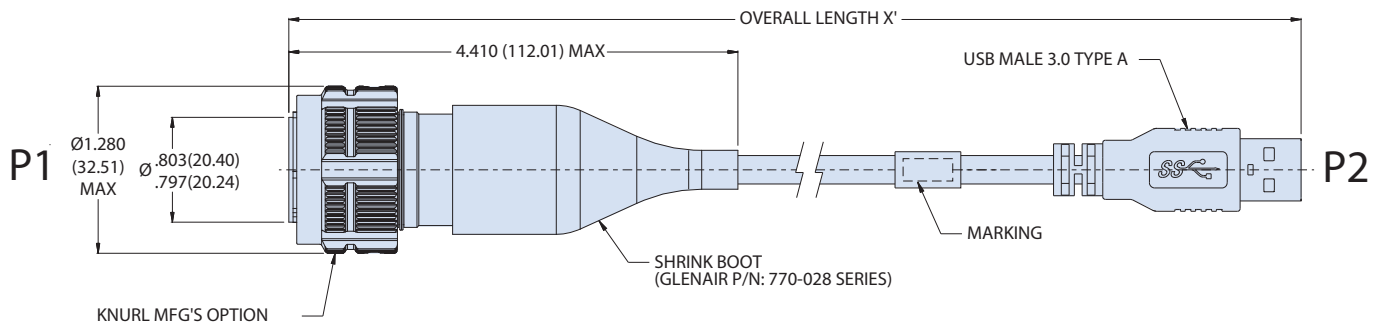
USB 3.0 TYPE A CONNECTORS  
 MIL-DTL-38999 Series III Type Connectors  
 2330-0445 USB 3.0 Cable assembly



AVAILABLE P 1 CONNECTOR DIMENSIONS, SHELL SIZE 15



CABLE ASSEMBLY SHOWN WITH PLUG CONNECTOR STYLE





# USB 3.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 2330-0450 USB 3.0 cable assembly with active repeater



#### 2330-0450 Glenair SuperSeal™ USB 3.0 plug cable jumper, with active repeater.

SuperSeal USB cable assemblies with IP67 open face rated connectors offer complete protection from environmental debris and water ingress common under harsh environmental conditions. USB 3.0 can be ordered in horizontal or vertical orientation to provide further security against mis-mating and conforms to existing USB orientations. Additional length options and custom configurations available. Please consult factory.

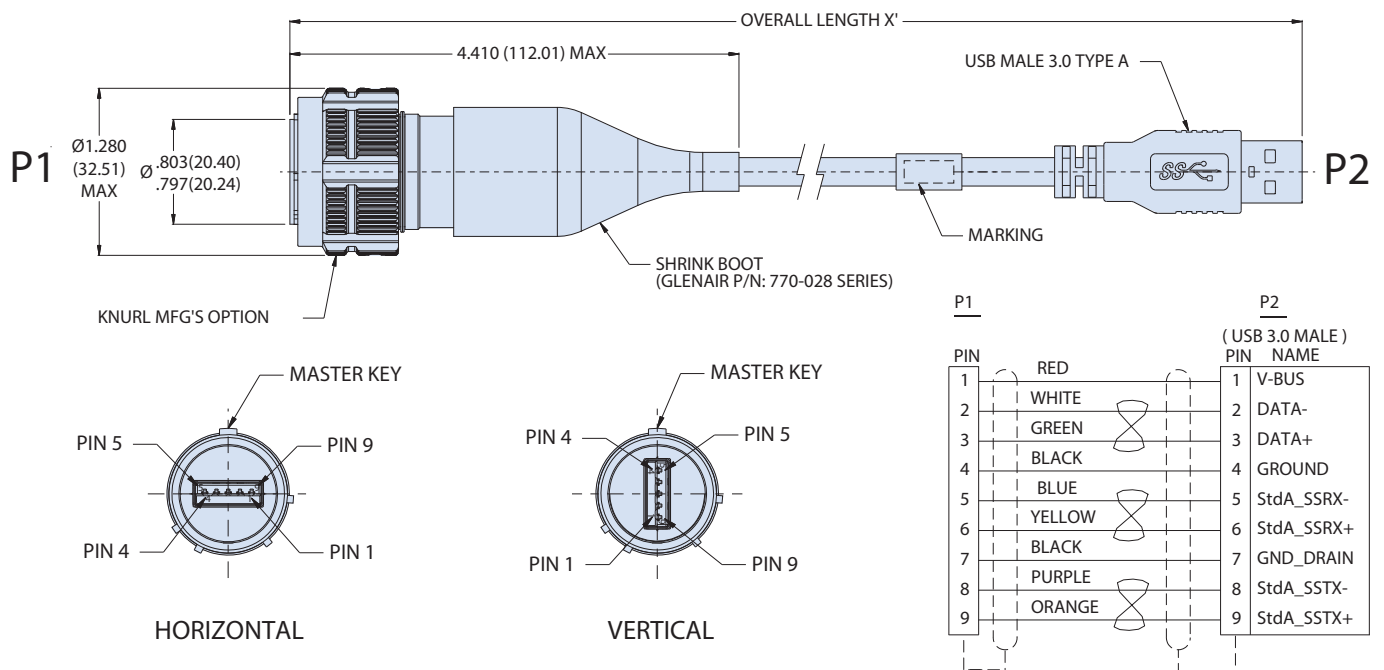
*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

Material and Finish	
NF	Aluminum/cadmium, olive drab
ME	Aluminum/electroless nickel
ZR	Zinc nickel, black (tri-valent chromium) RoHS compliant

Part Number Development									
Sample Part Number	2330-0450	NF	G6	-15	3	A	N	H	-03
Basic Number	2330-0450								
P1 Finish	See Material and Finish table								
P1 Connector Style <sup>1</sup>	G6 = Plug								
P1 Shell Size	15								
USB Performance	3 = USB 3.0								
USB Interface	A = Type A								
Polarization	A, B, C, D, E, N = Normal								
USB Orientation	H = Horizontal V = Vertical								
Overall Length	01 thru 10; length in feet.								

#### NOTES

1. Meets IP67 in unmated condition, IP68 mated
2. SuperSeal plug houses USB plug.





# USB 3.0 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

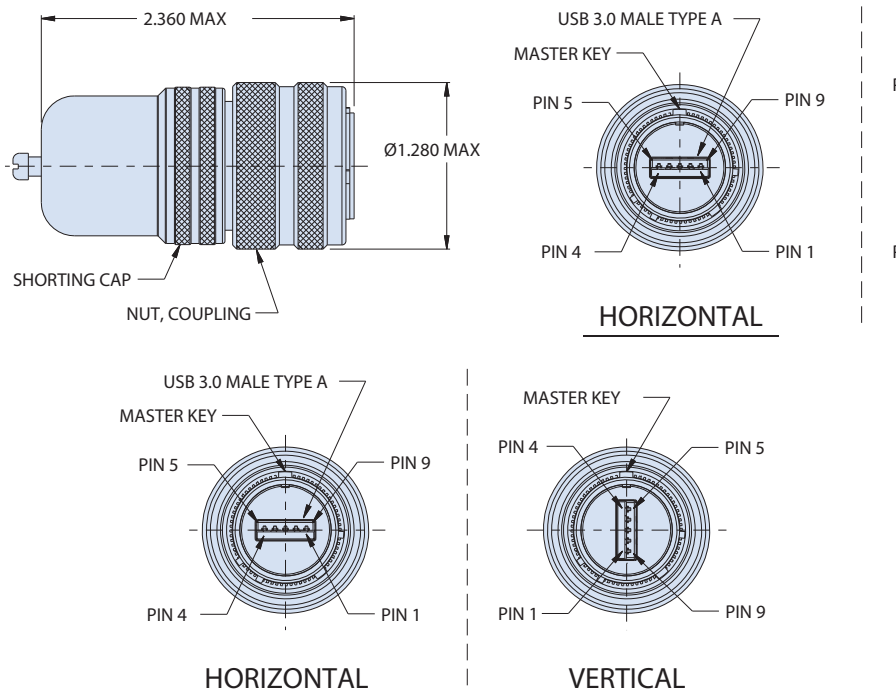


### 233-392 USB 3.0 Memory stick

Part Number Development	
Sample Part Number	233-392 NF 32 15 -N H P
Series / Basic Part No.	233-392
Material/Finish	<b>NF</b> = Aluminum/cadmium olive drab <b>ME</b> = Aluminum/electroless nickel <b>MT</b> = Aluminum/nickel PTFE <b>ZR</b> = Aluminum/zinc-nickel
Storage Capacity Options	<b>32</b> = 32 GB, <b>64</b> = 64 GB, <b>128</b> = 128 GB, <b>256</b> = 256 GB
Shell Size	15
Alternate Polarization	A, B, C, D, E, N = Normal; Per MIL-DTL-38999
USB Orientation	H = Horizontal V = Vertical
Protective Cover Option	P = Series 660-023 cover; Omit for none

#### NOTES

- Contact factory for details of protective cover options.
- This connector is designed to mate with Glenair part numbers 233-350,-352,-353,-354 &-355.
- USB flash memory specifications:
  - Storage capacity - 32 GB, 64 GB, 128 GB, 256 GB (consult factory for other capacity options)
  - System requirements - windows 2000, xp, vista, windows 7.
  - Compatibility - plug and play; USB 3.0 compliance; backward compatible with USB 2.0.
  - Interface - USB 3.0, Type a male.
  - Data transfer rates - see table II
  - Password protection and AES encryption.
  - Environmental parameters:
    - » Operating temperatures - -40°C to 85°C
    - » Storage temperatures - -40°C to 85°C
    - » Humidity range operating - 10% to 95%.
- Material/finishes:
  - Barrel, coupling nut - see part number development
  - Insulators-high grade rigid dielectric/N.A.
  - Seal: fluorosilicone/N.A.
  - EMI grounding spring-BeCu/ electroless nickel plate.
  - Hardware: stainless steel/ passivated
- Assembly shall be identified with Glenair's name, part number and date code, space permitting.
- Interpret drawing per ASME Y14.5 - 2009.



Read / Write Performance		
Capacity	Read (Mb/S)	Write (Mb/S)
32 GB	190	45
64 GB	190	95
128 GB	195	95
256 GB	180	130



C

SERIES 23

# SuperSeal™

## Ruggedized USB 3.2 Gen 2 Type C connectors

38999 Type SuperSeal™ ruggedized connectors offer outstanding environmental sealing and metal-to-metal shell grounding performance for commercial USB 3.2 Gen 2 Type C interfaces in a standard 38999 type package. Connectors are IP68 rated when mated and IP67 rated in the unmated condition for complete system protection against water sand and dust. These rugged field connectors offer military-grade harsh-environment protection for the SuperSpeed 10Gb/s and fast charging that USB 3.2 provides. The Type C interface allows smaller shell sizes to be utilized for lighter weight systems and panel real estate savings. 38999 Type SuperSeal™ USB 3.2 connectors feature polarized keys to prevent mismatching and non-corrosive, conductive material and finish options. The durable SuperSeal™ insert design provides an enhanced operating temperature range, increased life cycle, and rugged vibration and shock performance. Simple plug-and-play connectivity and hot-swappable addition of external peripherals without restarting systems. Crimp, solder-cup, PC tail and cable assemblies available.

### Features:

- **USB 3.2 Gen 2 Type C SuperSpeed 10 Gb/s**
- **Ruggedized D38999 interface with enhanced shielding and grounding**
- **Superior sealing: IP68 mated, IP67 open-face; except 'Drive-Thru' plug**
- **Military-grade vibration and shock performance**
- **Increased operating temperature range compared to commercial-grade USB connectors**



# USB 3.2 GEN 2, AND USB TYPE C CONNECTORS MIL-DTL-38999 Series III Type Connectors



## Product Selection Guide



**233-380**

C-42

233-380 Receptacle Connector with USB 3.2 Gen 2 (Type C) Female-to-Female Ports



**233-382**

C-45

233-382 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to PC Tail Termination



**233-384**

C-48

233-384 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to Breakout Board



**233-388**

C-51

233-388 'Drive-Thru' Plug provides IP68 sealing in mated condition for standard

New name	Old name	Original name	SuperSpeed name	Max speed	USB TYPE	Product Lines related
USB 3.2 Gen 2x2	N/A	USB 3.2	SuperSpeed USB 20Gbps	20Gbps	C	Versalink
USB 3.2 Gen 2	USB 3.1 Gen 2	USB 3.1	SuperSpeed USB 10Gbps	10Gbps	C	Versalink, 233-380, 233-382, 233-384, 233-388
USB 3.2 Gen 1	USB 3.1 Gen 1	USB 3.0	SuperSpeed USB	5Gbps	A	253-045, 253-044, El-Ochito Blue, Versalink, 233-350, 233-352, 233-354, El-Ochito Mighty Mouse, Speed Master, High Speed Micro-D, Superfly (882-00/010)



# USB 3.2 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 233-380 Receptacle Connector with USB 3.2 Gen 2 (Type C) Female-to-Female Ports



All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

#### 233-380 Glenair SuperSeal™ USB 3.2 Female to Female Coupler

SuperSeal USB 3.2 connectors are IP67 open face rated and offer complete protection from environmental debris and water ingress common under harsh environmental conditions. Design meets USB 3.2 Gen 2 (Type C) benchmark data transfer rate requirements for read and write performance requirements.

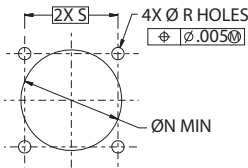
Part Number Development						
Sample Part Number	233-380	NF	00	-11	N	H
Basic Number	233-380					
Material / Finish	See Material and Finish table					
Connector Style	<b>00</b> = Receptacle, Wall Mount, with Slotted Holes <b>D0</b> = Receptacle, Wall Mount, Round Holes <b>CM</b> = Receptacle, Wall Mount with Metric Clinch Nuts <b>CS</b> = Receptacle, Wall Mount, with Standard Clinch Nuts <b>07</b> = Receptacle, Jam-Nut <b>05</b> = Receptacle, Inline					
Shell Size	11, 13					
Alternate Polarization	A, B, C, D, E, N = Normal					
USB Orientation	H = Horizontal      V = Vertical					

Material and Finish		
Sym.	Material	Finish Description
NF	aluminum	cadmium, olive drab
ME		electroless nickel (96 hour salt spray)
ZR		zinc nickel, black (tri-valent chromium) RoHS compliant
XM	composite	electroless nickel
Z1	SST	passivate
AB	marine bronze	none (clean only)

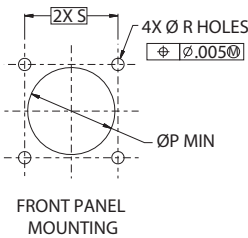
Consult factory for other options

Wall Mount Dimensions						
SHELL SIZE	A THREAD	B SQ	B' SQ	C BSC	D BSC	E THREAD
11	.7500-.1P-.3L-TS-2A	1.043 (26.49) 1.019 (25.88)	1.132 (28.75) 1.092 (27.74)	0.812 (20.62)	0.719 (18.26)	M15 X 1.0-6g 0.100R
13	.8750-.1P-.3L-TS-2A	1.138 (28.91) 1.114 (28.30)	1.226 (31.14) 1.186 (30.12)	0.906 (23.01)	0.812 (20.62)	M18 X 1.0-6g 0.100R

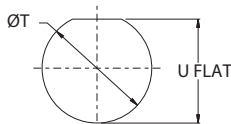
Back panel mounting



Recommended mounting holes panel thickness .288 max (See panel cutout and wall mount dimensions)



Recommended panel cut out for jam-nut receptacle



Jam Nut Mount & Inline Dimensions							
SHELL SIZE	F THREAD	ØG	H	J FLAT	K THREAD	L THREAD	ØM MAX
11	.7500-.1P-.3L-TS-2A	1.386 (35.20) 1.362 (34.59)	1.268 (32.21) 1.236 (31.39)	0.755 (19.18) 0.745 (18.92)	M20 X 1.0-6g 0.100R	M15 X 1.0-6g 0.100R	0.984 (24.99)
13	.8750-.1P-.3L-TS-2A	1.512 (38.40) 1.488 (37.80)	1.390 (35.31) 1.358 (34.49)	0.942 (23.93) 0.932 (23.67)	M25 X 1.0-6g 0.100R	M18 X 1.0-6g 0.100R	1.157 (29.39)

Panel Cutout & Wall Mount Dimensions						
SHELL SIZE	ØN MIN	ØP MIN	R HOLES	S BSC	ØT	U FLAT
11	0.796 (20.22)	0.625 (15.88)	0.133 (3.38) 0.123 (3.12)	0.812 (20.62)	0.835 (21.21) 0.825 (20.96)	0.771 (19.58) 0.761 (19.33)
13	0.922 (23.42)	0.750 (19.05)		0.906 (23.01)	1.020 (25.91) 1.010 (25.65)	0.955 (24.26) 0.945 (24.00)

#### NOTES

1. Meets IP67 in unmated condition, IP68 mated
2. Operating temperature: -20°C to +85°C





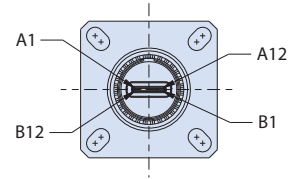
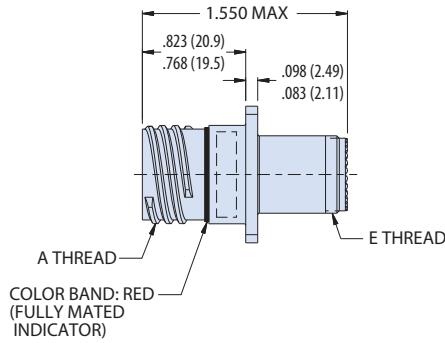
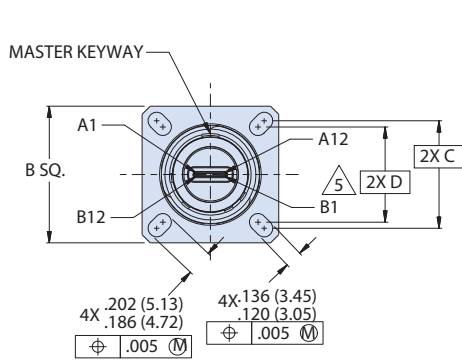
USB 3.2 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors

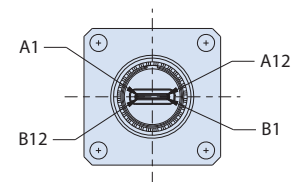
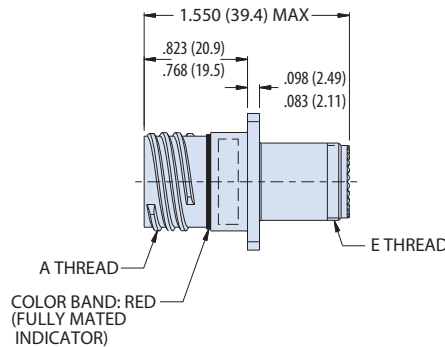
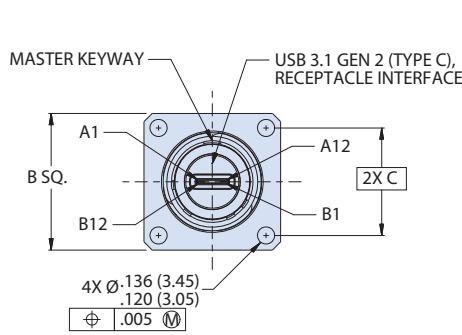


233-380 Receptacle Connector with USB 3.2 Gen 2 (Type C) Female-to-Female Ports

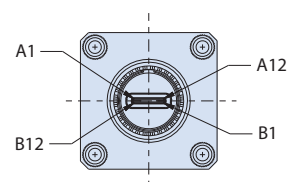
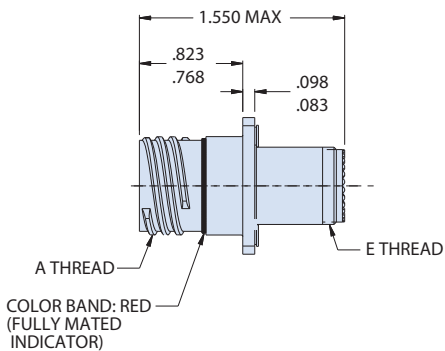
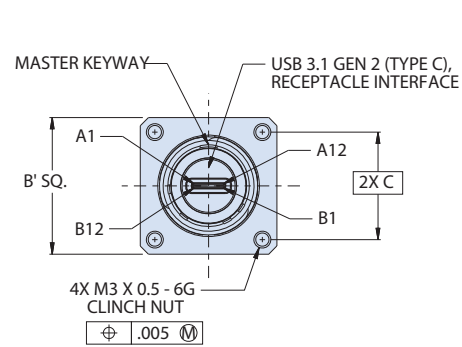
**00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES**



**D0 - WALL MOUNT RECEPTACLE WITH ROUND HOLES**



**CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS**





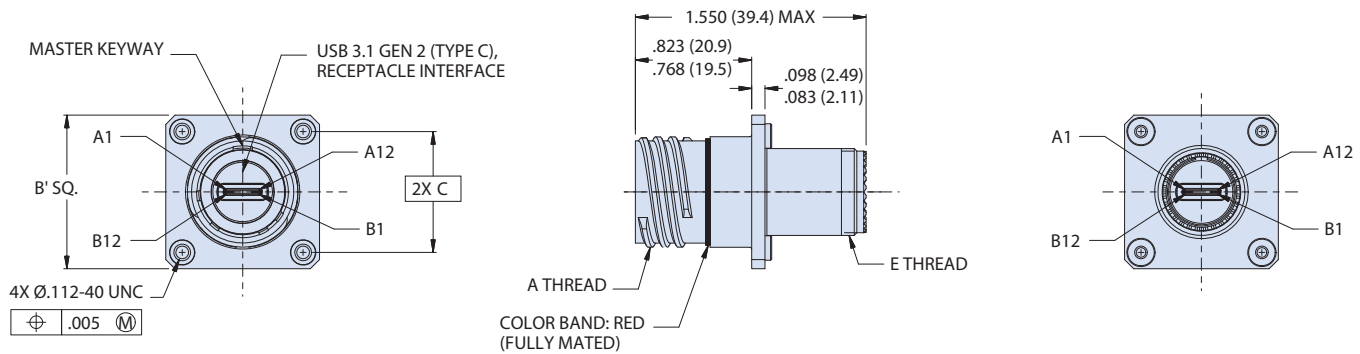
# USB 3.2 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

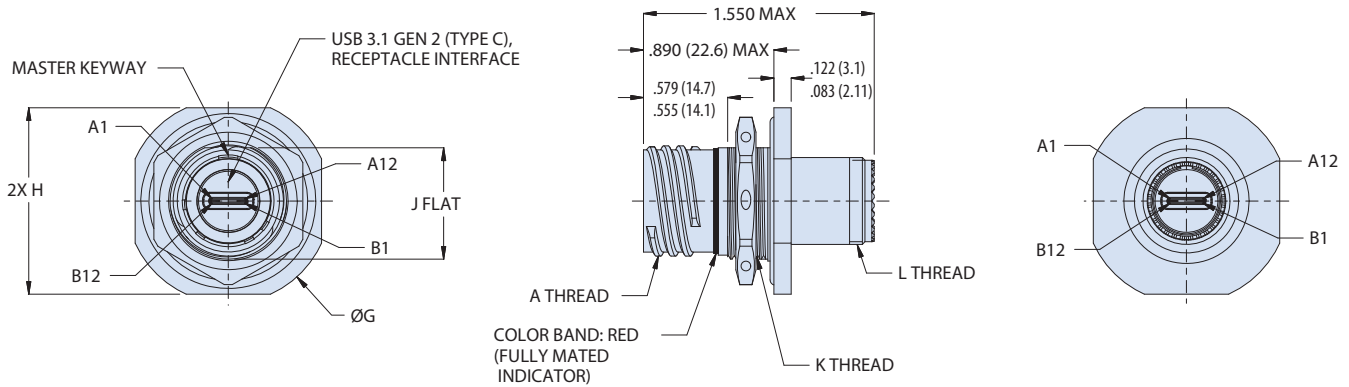


### 233-380 Receptacle Connector with USB 3.2 Gen 2 (Type C) Female-to-Female Ports

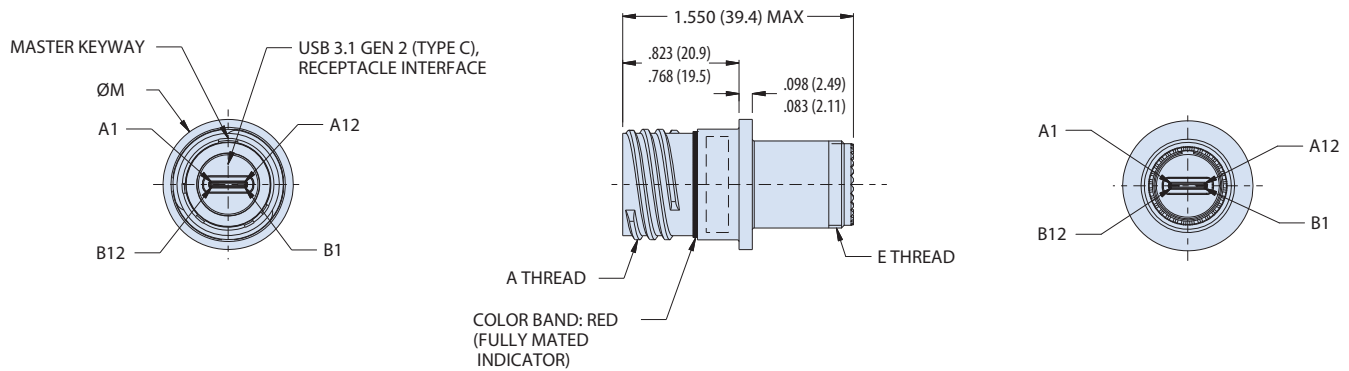
#### CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS



#### 07 - JAM NUT MOUNT RECEPTACLE



#### 05 - INLINE RECEPTACLE





# USB 3.2 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 233-382 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to PC Tail Termination

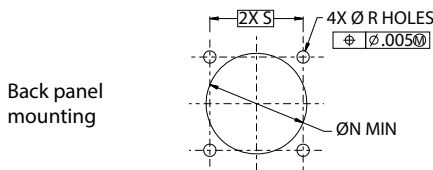


All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

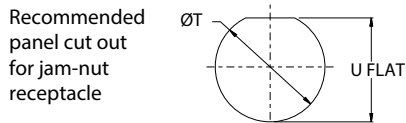
Material and Finish		
Sym.	Material	Finish Description
NF	aluminum	cadmium, olive drab
ME		electroless nickel (96 hour salt spray)
ZR		zinc nickel, black (tri-valent chromium) RoHS compliant
XM	composite	electroless nickel
Z1	SST	passivate
AB	marine bronze	none (clean only)

Consult factory for other options

#### PANEL CUTOUT DIMENSIONS



Back panel mounting



#### 233-382 Glenair SuperSeal™ USB 3.2 Connector with PC Tails

SuperSeal USB 3.2 connectors are IP68 open face rated and offer complete protection from environmental debris and water ingress common under harsh environmental conditions. Design meets USB 3.2 Gen 2 (Type C) benchmark data transfer rate requirements for read and write performance requirements.

Part Number Development					
Sample Part Number	233-382	NF	00	-11	N
Basic Number	233-382				
Material / Finish	See Material and Finish table				
Connector Style	00 = Receptacle, Wall Mount, with Slotted Holes D0 = Receptacle, Wall Mount, Round Holes CM = Receptacle, Wall Mount with Metric Clinch Nuts CS = Receptacle, Wall Mount, with Standard Clinch Nuts 07 = Receptacle, Jam-Nut				
Shell Size	11, 13				
Alternate Polarization	A, B, C, D, E, N = Normal				

Wall Mount Dimensions					
SHELL SIZE	A THREAD	B SQ	B' SQ	C BSC	D BSC
11	.7500-.1P-.3L-TS-2A	1.043 (26.49) 1.019 (25.88)	1.132 (28.75) 1.092 (27.74)	0.812 (20.62)	0.719 (18.26)
13	.8750-.1P-.3L-TS-2A	1.138 (28.91) 1.114 (28.30)	1.226 (31.14) 1.186 (30.12)	0.906 (23.01)	0.812 (20.62)

Jam Nut Mount & Inline Dimensions					
SHELL SIZE	F THREAD	ØG	H	J FLAT	K THREAD
11	.7500-.1P-.3L-TS-2A	1.386 (35.20) 1.362 (34.59)	1.268 (32.21) 1.236 (31.39)	0.755 (19.18) 0.745 (18.92)	M20 X 1.0-6g 0.100R
13	.8750-.1P-.3L-TS-2A	1.512 (38.40) 1.488 (37.80)	1.390 (35.31) 1.358 (34.49)	0.942 (23.93) 0.932 (23.67)	M25 X 1.0-6g 0.100R

Panel Cutout & Wall Mount Dimensions						
SHELL SIZE	ØN MIN	ØP MIN	R HOLES	S BSC	ØT	U FLAT
11	0.796 (20.22)	0.625 (15.88)	0.133 (3.38) 0.123 (3.12)	0.812 (20.62)	0.835 (21.21) 0.825 (20.96)	0.771 (19.58) 0.761 (19.33)
13	0.922 (23.42)	0.750 (19.05)		0.906 (23.01)	1.020 (25.91) 1.010 (25.65)	0.955 (24.26) 0.945 (24.00)

#### NOTES

1. Meets IP67 in unmated condition, IP68 mated
2. Front panel mount only
3. Operating temperature: -20°C to +85°C



# USB 3.2 TYPE A CONNECTORS

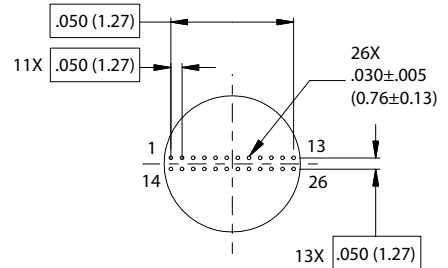
## MIL-DTL-38999 Series III Type Connectors



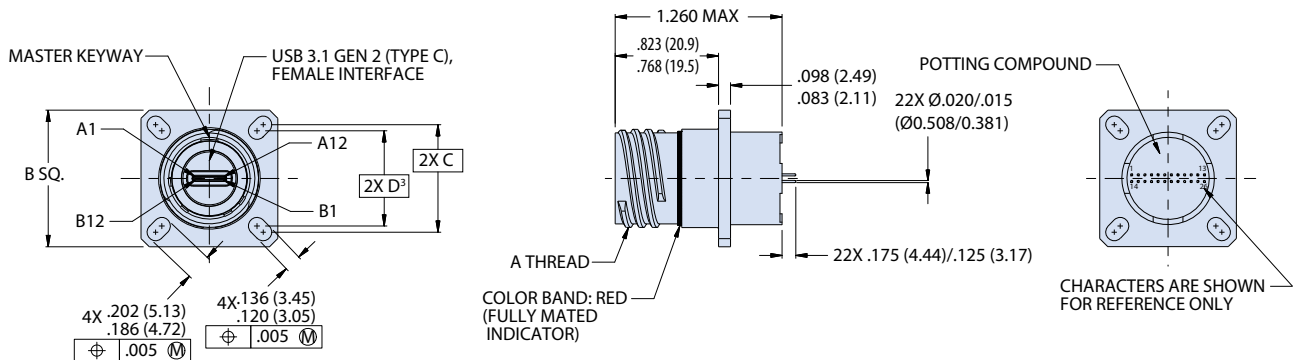
### 233-382 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to PC Tail Termination

PC TAIL PINS TO USB TYPE-C WIRING					
PC TAIL PIN	USB C PIN	NAME	PC TAIL PIN	USB C PIN	NAME
1	A4,A9,B4,B9	VBUS	14	A4,A9,B4,B9	VBUS
2	A5	SBU1	15	B5	CC2
3	A8	CC1	16	B8	SBU2
4	A11	D-	17	B2	D2+
5	A10	D+	18	B3	D2-
6	A1,A12,B1,B12	GND	19	A1,A12,B1,B12	GND
7	A7	RX2+	20	B6	TX2+
8	A6	RX2-	21	B7	TX2-
9	A1,A12,B1,B12	GND	22	A1,A12,B1,B12	GND
10	A3	TX1-	23	B10	RX1-
11	A2	TX1+	24	B11	RX1+
12	A1,A12,B1,B12	GND	25	A1,A12,B1,B12	GND
13	A4,A9,B4,B9	VBUS	26	A4,A9,B4,B9	VBUS

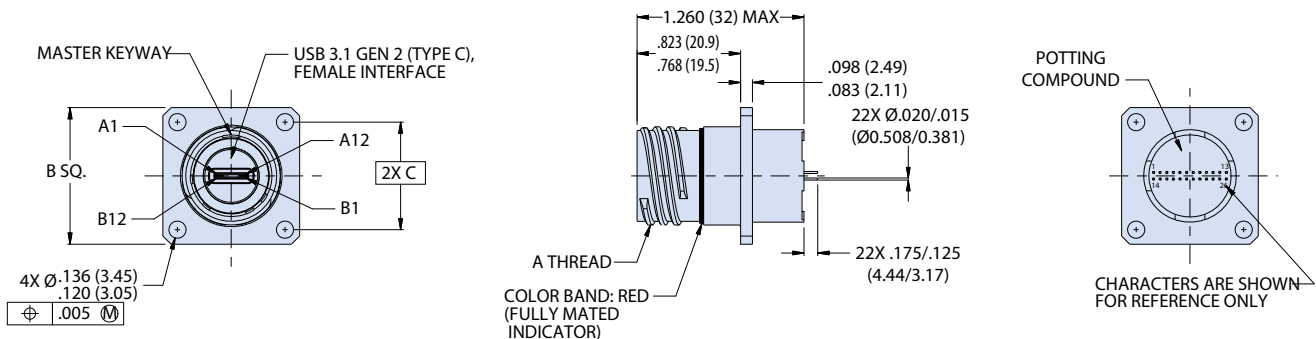
#### PCB LAYOUT (SOLDER SIDE)



#### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES



#### D0 - WALL MOUNT RECEPTACLE WITH ROUND HOLES





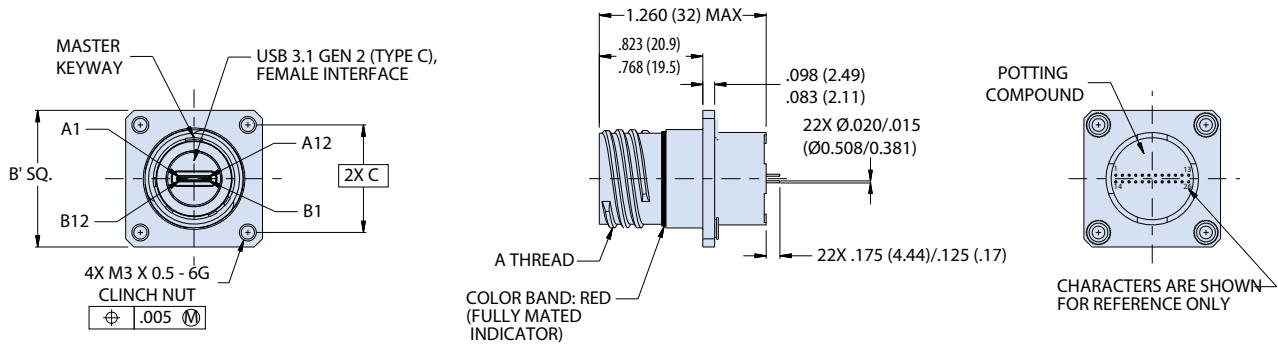
USB 3.2 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors

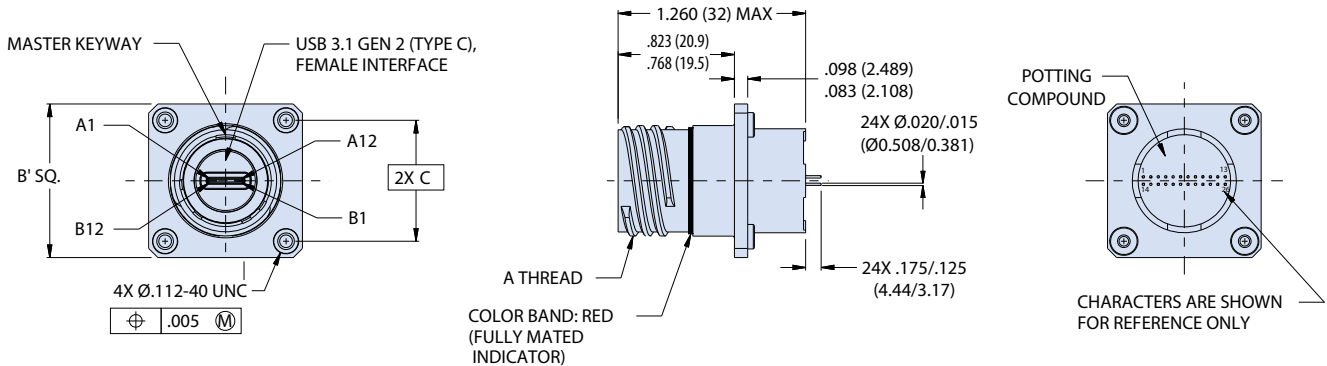


233-382 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to PC Tail Termination

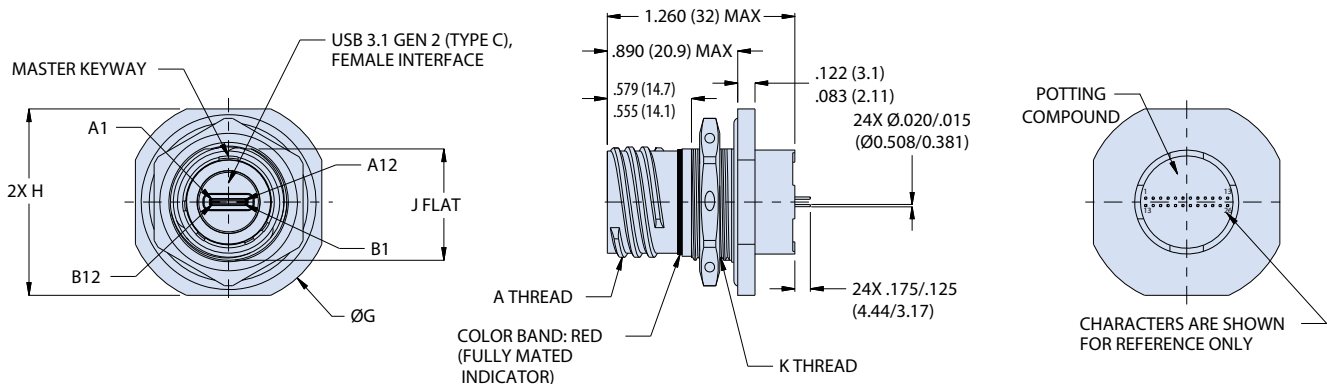
**CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS**



**CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS**



**07 - JAM NUT MOUNT RECEPTACLE**





# USB 3.2 TYPE A CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 233-384 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to Breakout Board



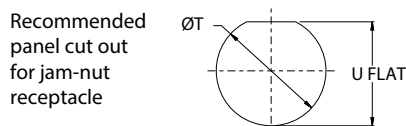
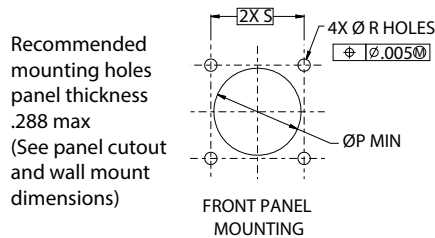
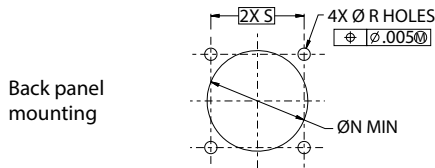
All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

#### Material and Finish

Sym.	Material	Finish Description
NF	aluminum	cadmium, olive drab
ME		electroless nickel (96 hour salt spray)
ZR		zinc nickel, black (tri-valent chromium) RoHS compliant
XM	composite	electroless nickel
Z1	SST	passivate
AB	marine bronze	none (clean only)

Consult factory for other options

#### PANEL CUTOUT DIMENSIONS



#### 233-384 Glenair SuperSeal™ USB 3.2 to Breakout Board

SuperSeal USB 3.2 connectors are IP67 open face rated and offer complete protection from environmental debris and water ingress common under harsh environmental conditions. Design meets USB 3.2 Gen 2 (Type C) benchmark data transfer rate requirements for read and write performance requirements.

#### Part Number Development

Sample Part Number	233-384	NF	00	-11	N
Basic Number	233-384				
Material / Finish	See Material and Finish table				
Connector Style	00 = Receptacle, Wall Mount, with Slotted Holes D0 = Receptacle, Wall Mount, Round Holes CM = Receptacle, Wall Mount with Metric Clinch Nuts CS = Receptacle, Wall Mount, with Standard Clinch Nuts 07 = Receptacle, Jam-Nut 05 = Receptacle, Inline				
Shell Size	11, 13				
Alternate Polarization	A, B, C, D, E, N = Normal				

#### Wall Mount Dimensions

SHELL SIZE	A THREAD	B SQ	B' SQ	C BSC	D BSC
11	.7500-1P-3L-TS-2A	1.043 (26.49) 1.019 (25.88)	1.132 (28.75) 1.092 (27.74)	0.812 (20.62)	0.719 (18.26)
13	.8750-1P-3L-TS-2A	1.138 (28.91) 1.114 (28.30)	1.226 (31.14) 1.186 (30.12)	0.906 (23.01)	0.812 (20.62)

#### Jam Nut Mount & Inline Dimensions

SHELL SIZE	F THREAD	ØG	H	J FLAT	K THREAD
11	.7500-1P-3L-TS-2A	1.386 (35.20) 1.362 (34.59)	1.268 (32.21) 1.236 (31.39)	0.755 (19.18) 0.745 (18.92)	M20 X 1.0-6g 0.100R
13	.8750-1P-3L-TS-2A	1.512 (38.40) 1.488 (37.80)	1.390 (35.31) 1.358 (34.49)	0.942 (23.93) 0.932 (23.67)	M25 X 1.0-6g 0.100R

#### Panel Cutout & Wall Mount Dimensions

SHELL SIZE	ØN MIN	ØP MIN	R HOLES	S BSC	ØT	U FLAT
11	0.796 (20.22)	0.625 (15.88)	0.133 (3.38) 0.123 (3.12)	0.812 (20.62)	0.835 (21.21) 0.825 (20.96)	0.771 (19.58) 0.761 (19.33)
13	0.922 (23.42)	0.750 (19.05)		0.906 (23.01)	1.020 (25.91) 1.010 (25.65)	0.955 (24.26) 0.945 (24.00)

#### NOTES

1. Meets IP67 in unmated condition, IP68 mated
2. Front panel mount only
3. Operating temperature: -20°C to +85°C



# USB 3.2 TYPE A CONNECTORS

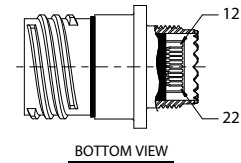
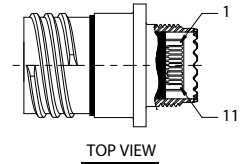
## MIL-DTL-38999 Series III Type Connectors



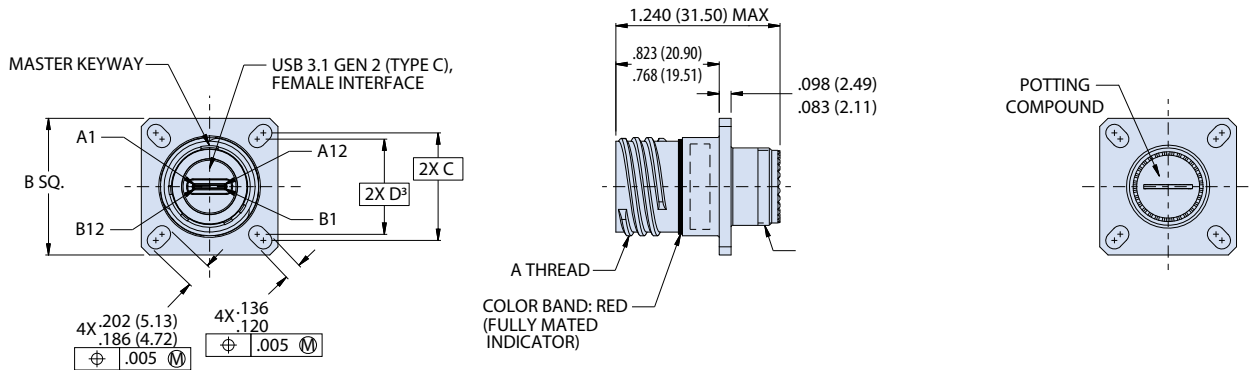
### 233-384 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to Breakout Board

USB Type-C Wiring					
PAD	PIN NAME	DESCRIPTION	PAD	PIN NAME	DESCRIPTION
1	A1,A12	GND	12	B1,B12	GND
2	A2	TX1+	13	B2	TX2+
3	A3	TX1-	14	B3	TX2-
4	A4	VBUS	15	B4	VBUS
5	A5	CC1	16	B5	CC2
6	A6	D+	17	B6	D+
7	A7	D-	18	B7	D-
8	A8	SBU1	19	B8	SBU2
9	A9	VBUS	20	B9	VBUS
10	A10	RX2-	21	B10	RX1-
11	A11	RX2+	22	B11	RX1+

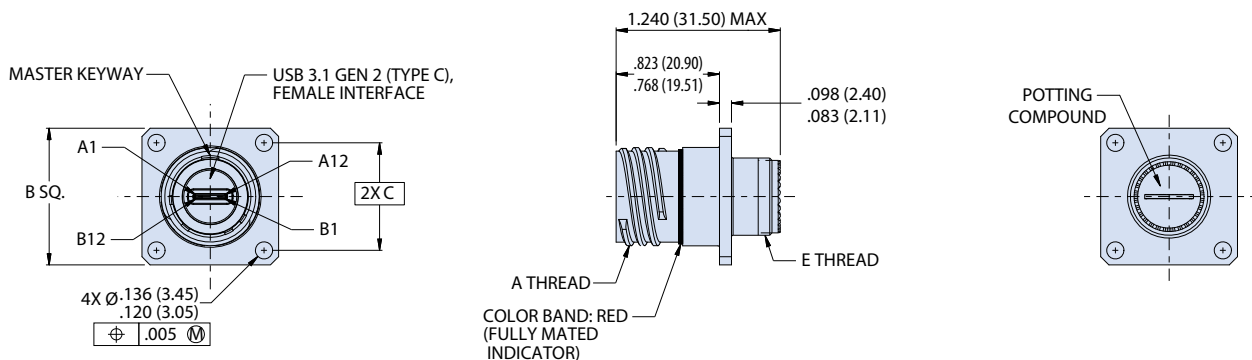
#### CONNECTOR PIN ASSIGNMENTS



#### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES



#### D0 - WALL MOUNT RECEPTACLE WITH ROUND HOLES





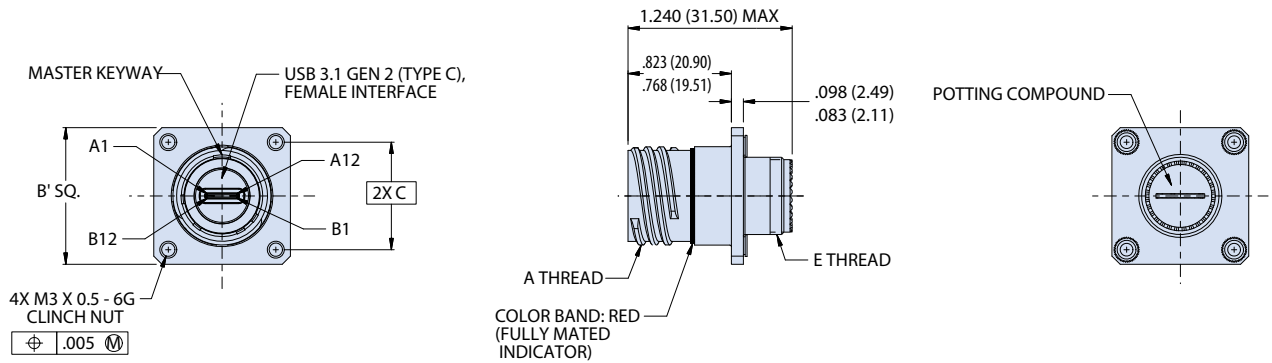
USB 3.2 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors

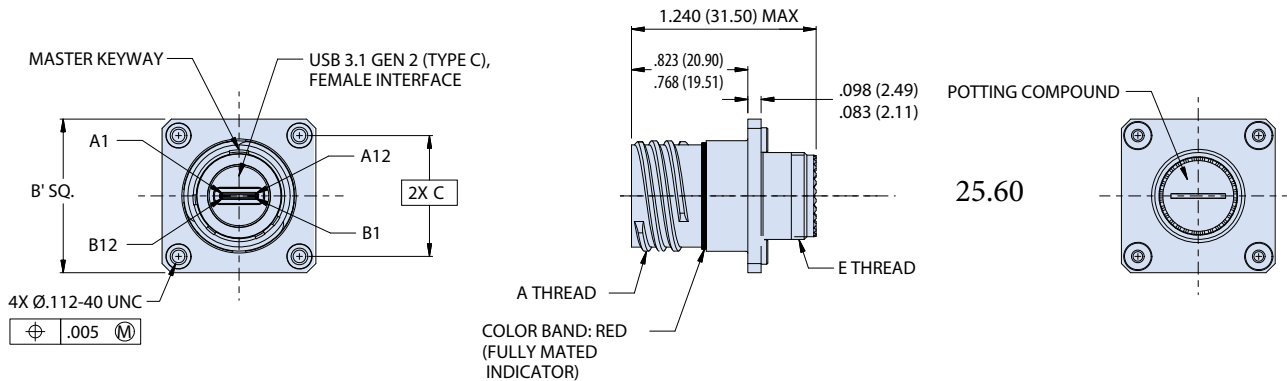


233-384 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to Breakout Board

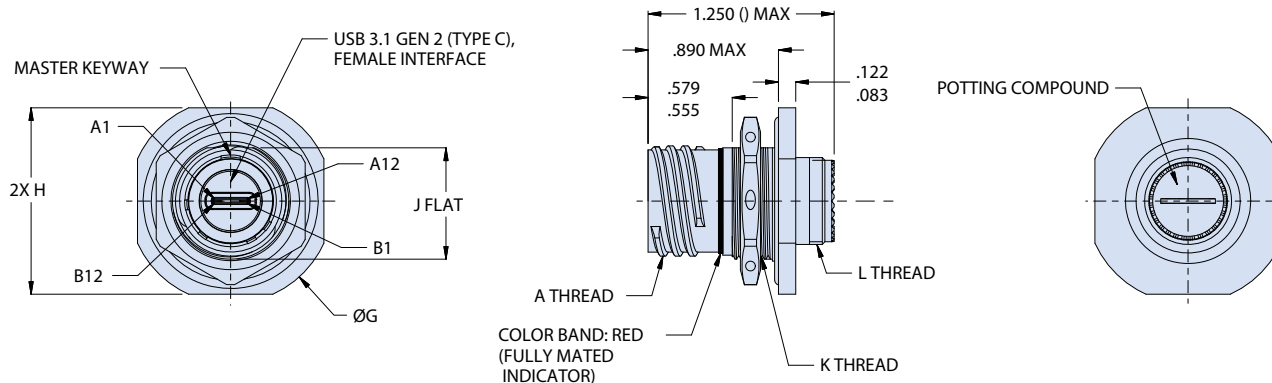
**CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS**



**CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS**



**07 - JAM NUT MOUNT RECEPTACLE**







USB 3.2 TYPE A CONNECTORS

MIL-DTL-38999 Series III Type Connectors



233-388 Drive-Thru Plug Connector with Male USB 3.2 Gen 2 (Type C) Plug

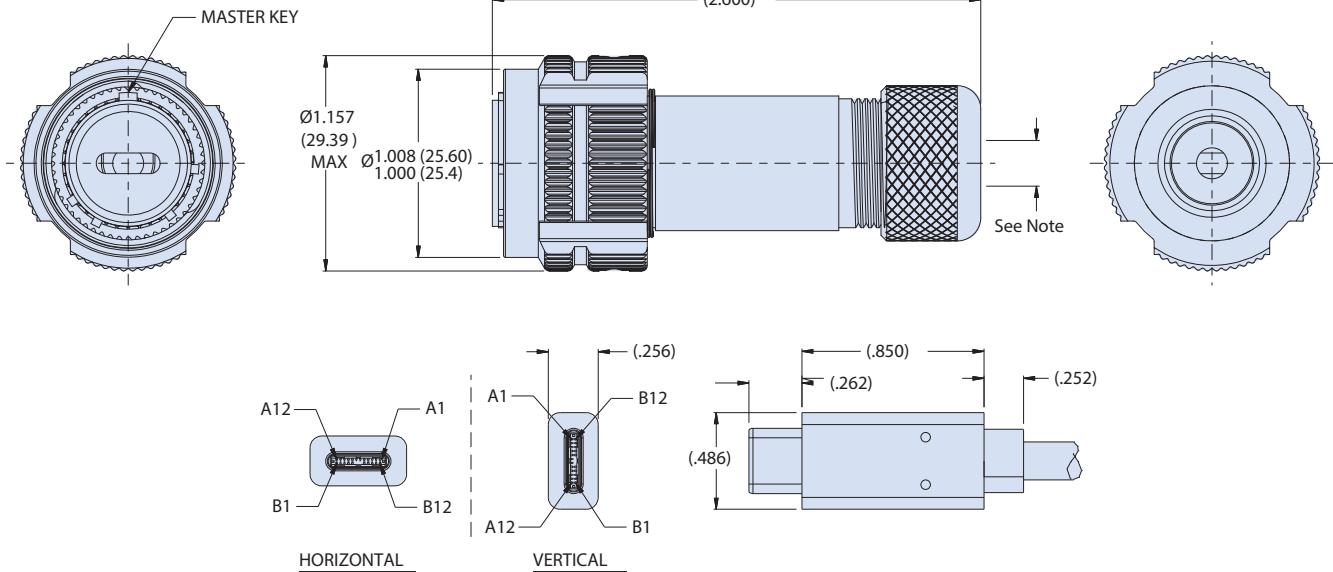
233-388 Glenair SuperSeal™ USB 3.2 Plug

SuperSeal USB 3.2 connectors are IP67 in mated condition and offer complete protection from environmental debris and water ingress common under harsh environmental conditions. Drive-thru design utilizes USB 3.2 commercially available cabled connector with nominal outside diameter of 0.189 (4.8). Meets USB 3.2 Gen 2 (Type C) benchmark data transfer rate requirements for read and write performance requirements.



All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

Part Number Development					
Sample Part Number	233-388	NF	G6	-13	N H
Basic Number	233-388				
Material / Finish	See Table I				
Connector Style	G6 = Plug				
Shell Size	13				
Alternate Polarization	A, B, C, D, E, N = Normal				
USB Orientation	H = Horizontal V = Vertical				



Recommended USB 3.1 Type C Plug Overmold Design

Table I: Material and Finish		
Sym.	Material	Finish Description
NF	aluminum	cadmium, olive drab
ME		electroless nickel (96 hour salt spray)
ZR		zinc nickel, black (tri-valent chromium) RoHS compliant
XM	composite	electroless nickel
Z1	SST	passivate
AB	marine bronze	none (clean only)

Consult factory for other options

NOTES

1. IP68 in mated condition
2. Design accommodates cable outside diameter of 0.1879 (4.8) nominal
3. Operating Temperature: -20° C to +85° C

RUGGEDIZED  
SERIES ITS REVERSE-  
BAYONET RJ45  
CAT 6A CONNECTOR

# SUPERSEAL™

Harsh-environment RJ45 data transmission connectors with fast and reliable reverse-bayonet coupling for military vehicle and rail applications



## Series ITS SuperSeal™ Advantages

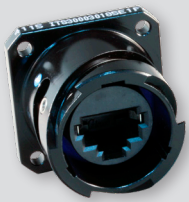
- Intermountable 5015 style reverse-bayonet connectors for heavy-duty industrial and transportation applications
- Reverse-bayonet coupling for fast, reliable mating in hard-to-reach locations
- Superior sealing—IP67 (open face) and IP68 (mated)—for complete harsh-environment protection
- Crimp contact termination or pigtail cables
- Available backshells provide strain-relief and environmental protection
- Integrated RJ45 plugs and jacks for Cat 5e high-speed data transmission



Glenair, Inc.  
1211 Air Way  
Glendale, CA 91201-2497  
818-247-6000  
sales@glenair.com  
www.glenair.com



RJ45 CAT 5E ETHERNET  
Series ITS (5015 intermountable)  
Reverse Bayonet Coupling  
Product Selection Guide



**ITS300**

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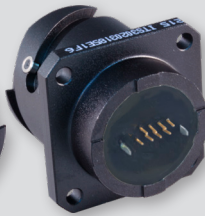
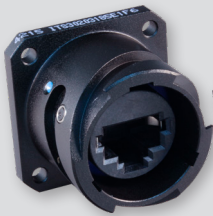
SuperSeal™ Coupler with Accessory Threads and Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle).



**ITS301**

Page D-4

SuperSeal™ Connector with Accessory Threads and Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.



**ITS302**

Page D-6

SuperSeal™ Receptacle with RJ45 Jack to PC Tail Termination.



**ITS303**

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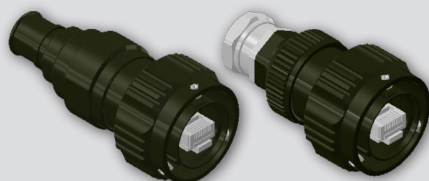
SuperSeal™ Receptacle with RJ45 Jack to Solder Cup Termination.



**ITS330**

Page D-10

SuperSeal™ Feedthrough Receptacle with Jack-to-Jack RJ45.



**ITS300H**

Page D-11

SuperSeal™ RJ45 Connector and Backshell with Accessory Options.



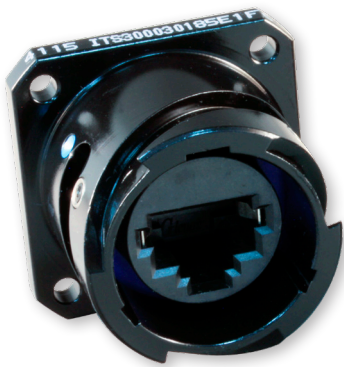


RJ45 CAT 5E ETHERNET

# Series ITS (5015 type) Reverse-Bayonet

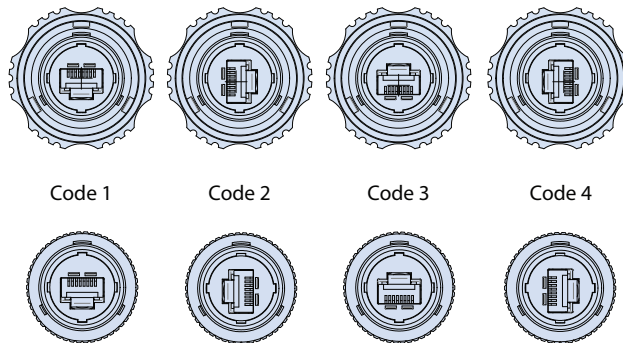


ITS300 Coupler with Accessory Threads and Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)



How to Order							
Sample Part Number	ITS300	030	G	18	5E	1	F7
Basic Number	ITS300						
Connector Style <sup>1</sup>	030 = Rear Panel Mount Square Flange Receptacle 01 = InLine Receptacle 070 = Rear Panel Mount Jam Nut Receptacle 06 = Straight Plug Connector						
Insert-to-Shell Grounding	G = Insert grounded to shell; available for receptacle only (for use with shielded cable) Omit = for none						
Shell Size	18						
RJ45 Category	5E = Cat 5E For Cat 6A applications consult factory						
RJ45 Orientation	1, 2, 3 or 4						
Material/Finish	Omit for Aluminum/Cadmium, Olive Drab (G3) F6 = Aluminum/Black Polymer Electrocoat F7 = Aluminum/Conductive Black Zinc Nickel F11 = Aluminum/Electroless Nickel						

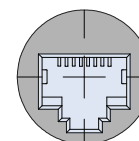
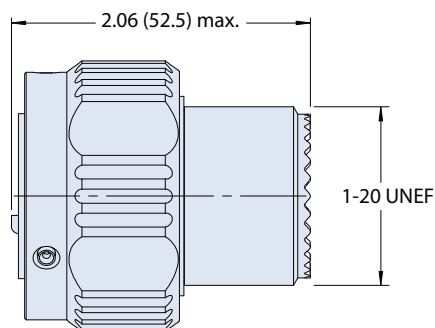
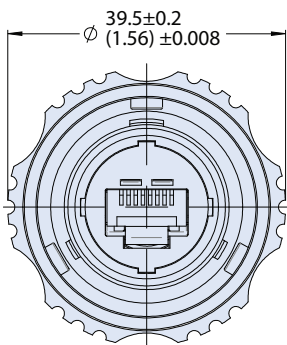
### RJ45 Orientation Options



### NOTES

- See Section A for panel cutout dimensions
- Plugs are plug/jack and receptacles are jack/jack

### 06 - PLUG WITH ACCESSORY THREADS



Rear Connector View with RJ45 Jack (Applies to all connector styles)



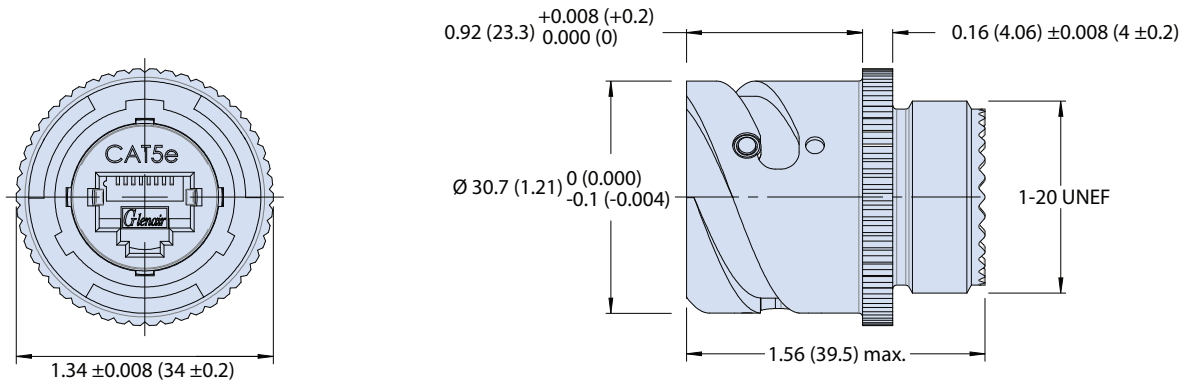
RJ45 CAT 5E ETHERNET

Series ITS (5015 type) Reverse-Bayonet

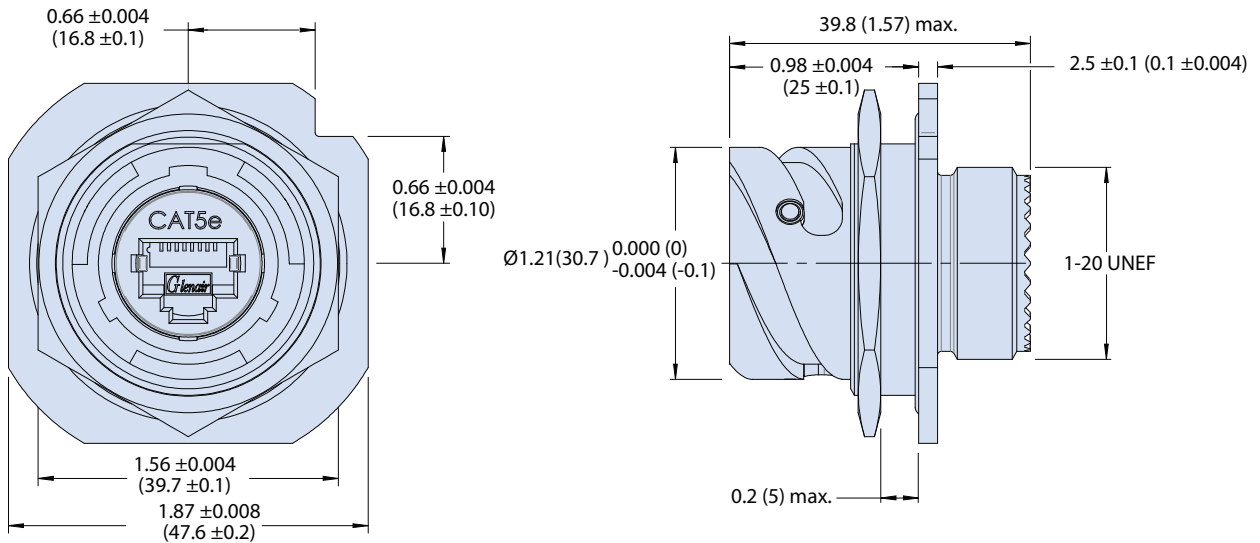


ITS300 Coupler with Accessory Threads and Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)

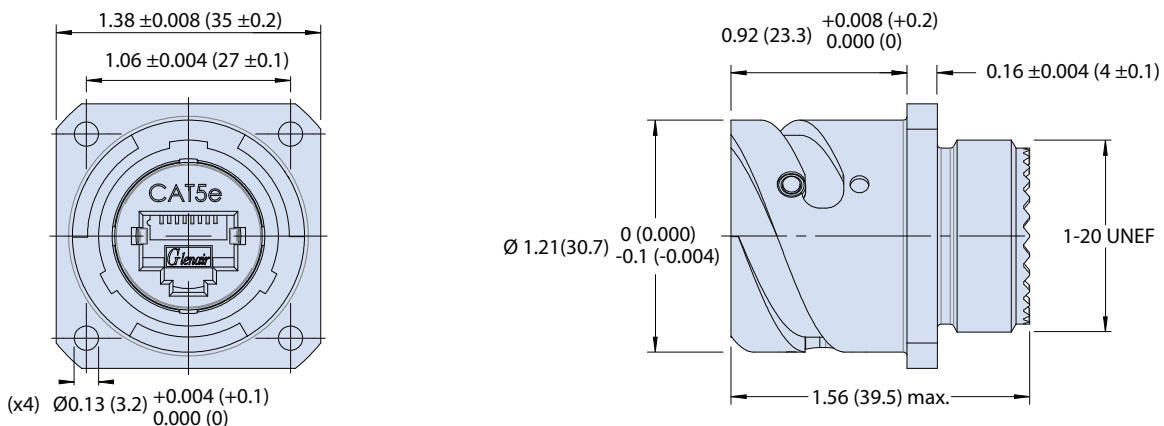
**01 - INLINE RECEPTACLE WITH ACCESSORY THREADS**



**070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS**



**030 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH ACCESSORY THREADS**





RJ45 CAT 5E ETHERNET

# Series ITS (5015 type) Reverse-Bayonet

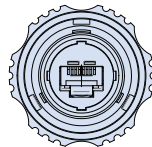


ITS301 Connector with Accessory Threads and Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

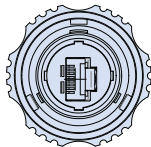


How to Order							
<b>Sample Part Number</b>	<b>ITS301</b>	<b>030</b>	<b>G</b>	<b>18</b>	<b>5E</b>	<b>1</b>	<b>F7</b>
<b>Basic Number</b>	<b>ITS301</b>						
<b>Connector Style<sup>1</sup></b>	<b>030</b> = Rear Panel Mount Square Flange Receptacle <b>01</b> = InLine Receptacle <b>070</b> = Rear Panel Mount Jam Nut Receptacle <b>06</b> = Straight Plug Connector						
<b>Insert-to-Shell Grounding</b>	<b>G</b> = Insert grounded to shell; available for receptacle only (for use with shielded cable) <b>Omit</b> = for none						
<b>Shell Size</b>	<b>18</b>						
<b>RJ45 Category</b>	<b>5E</b> = Cat 5E For Cat 6A applications consult factory						
<b>RJ45 Orientation</b>	<b>1, 2, 3</b> or <b>4</b>						
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F11</b> = Aluminum/Electroless Nickel						

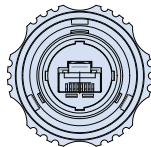
## RJ45 Orientation Options



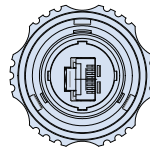
Code 1



Code 2

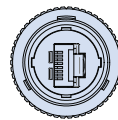
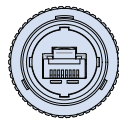
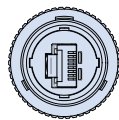
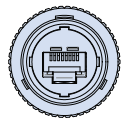


Code 3



Code 4

**Plug**

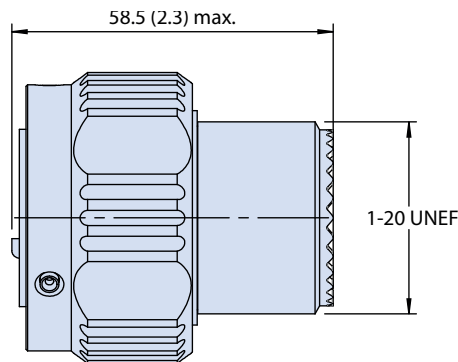
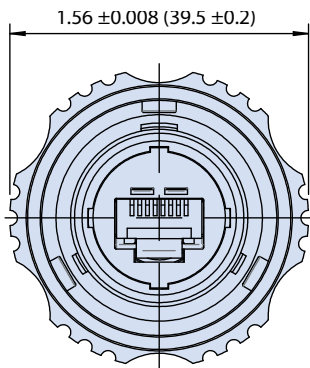


**Receptacle**  
(In-Line Shown)

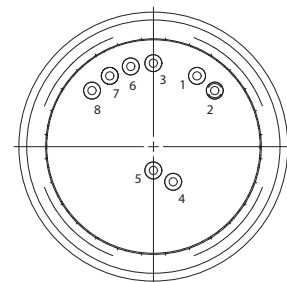
## NOTES

1. See Section A for panel cutout dimensions
2. Crimp removable size 22 contacts (M39029/58-360) supplied loose

## 06 - PLUG WITH ACCESSORY THREADS



## PLUG AND RECEPTACLE REAR TERMINATION VIEW





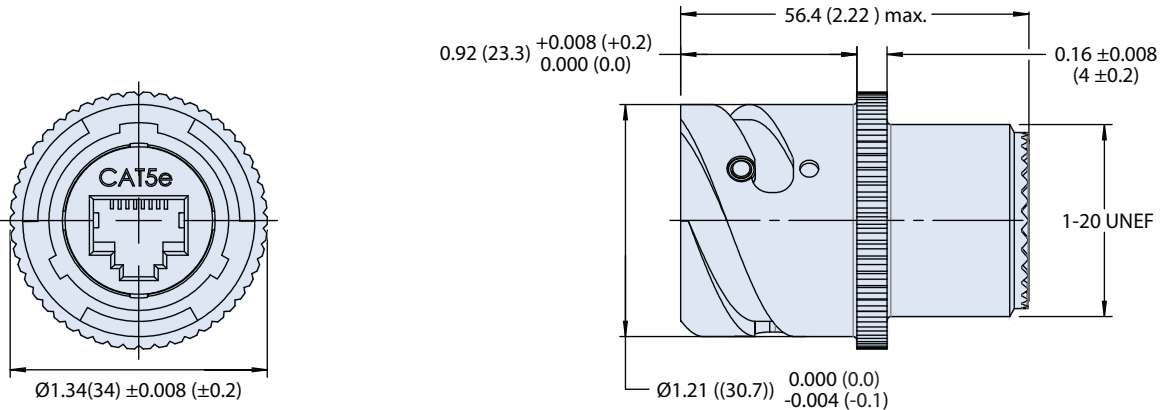
RJ45 CAT 5E ETHERNET

Series ITS (5015 type) Reverse-Bayonet

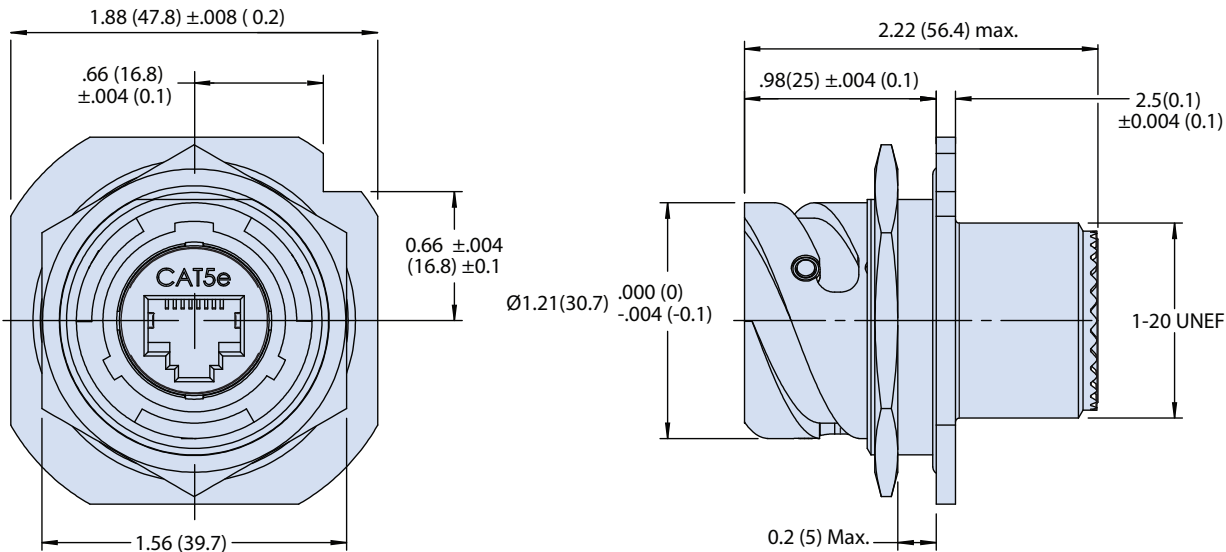


ITS301 Connector with Accessory Threads and Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

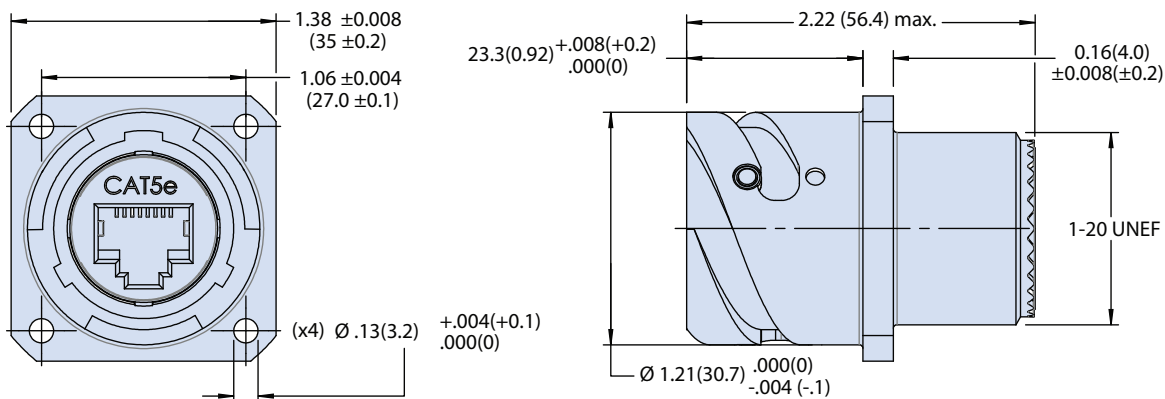
**01 - INLINE RECEPTACLE WITH ACCESSORY THREADS**



**070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS**



**030 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH ACCESSORY THREADS**

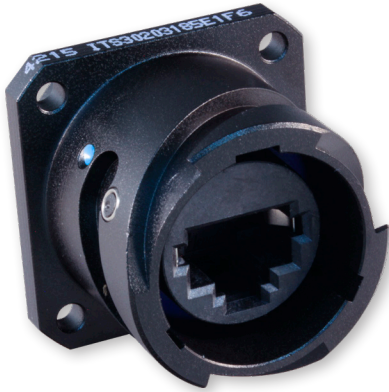




# RJ45 CAT 5E ETHERNET Series ITS (5015 type) Reverse-Bayonet



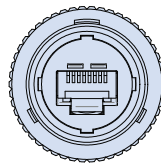
## ITS302 Receptacle with RJ45 Jack to PC Tail Termination



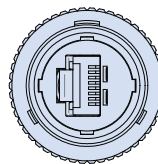
How to Order							
Sample Part Number	ITS302	03	G	18	5E	1	F7
Basic Number	ITS302						
Connector Style <sup>1</sup>	<b>03</b> = Rear Panel Mount Square Flange Receptacle <b>07</b> = Rear Panel Mount Jam Nut Receptacle						
Insert-to-Shell Grounding	<b>G</b> = Insert grounded to shell (for use with shielded cable) (Use only with G3, F11 or F7 finish) <b>Omit</b> = for none						
Shell Size	18						
RJ45 Category	<b>5E</b> = Cat 5E For Cat 6A applications consult factory						
RJ45 Orientation	1, 2, 3 or 4						
Material/Finish	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F11</b> = Aluminum/Electroless Nickel						

### RJ45 Orientation Options for Receptacle

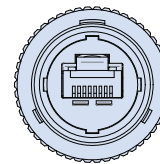
(In-line shell style shown for reference only, shell style not available)



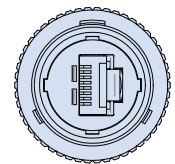
Code 1



Code 2

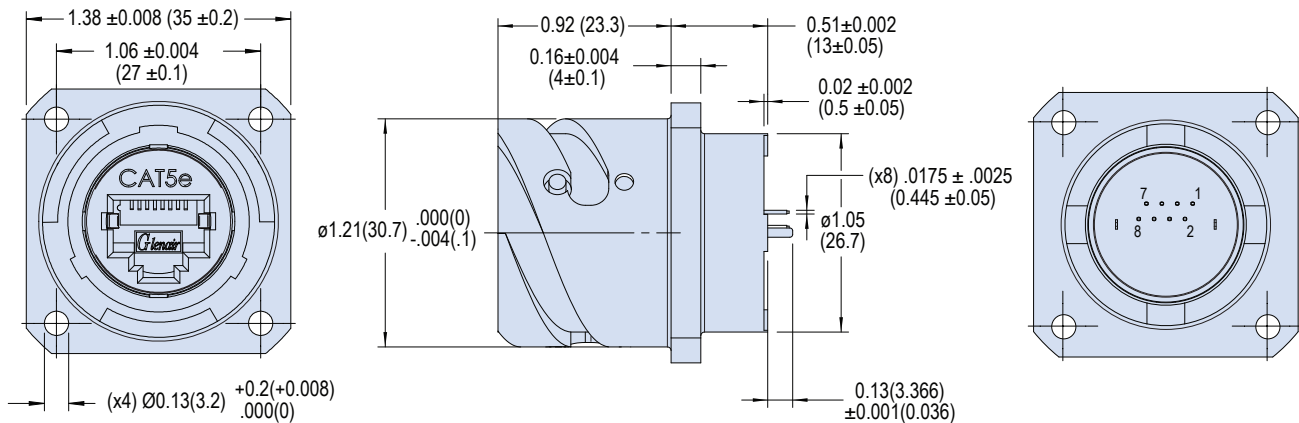


Code 3



Code 4

### 03 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE



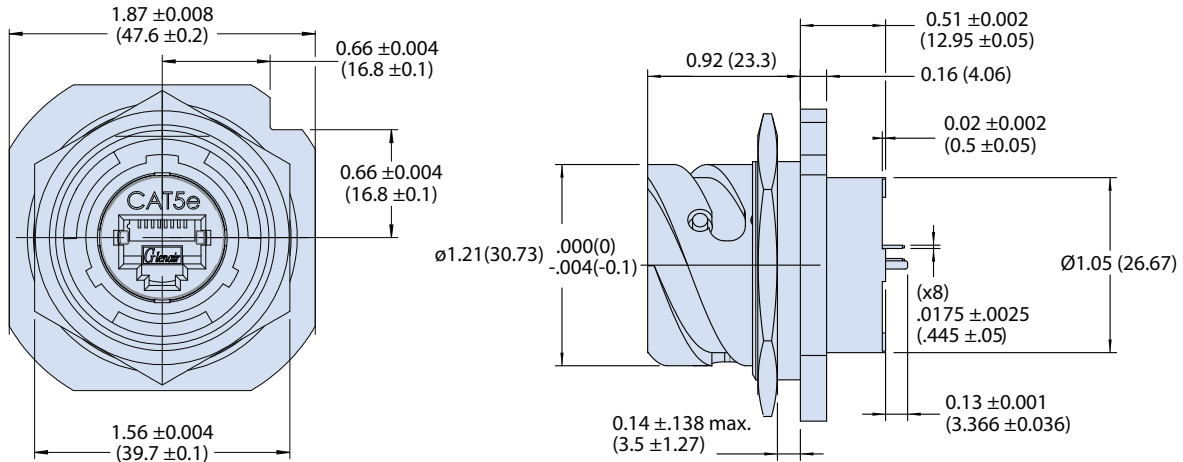




# RJ45 CAT 5E ETHERNET Series ITS (5015 type) Reverse-Bayonet ITS302 Receptacle with RJ45 Jack to PC Tail Termination

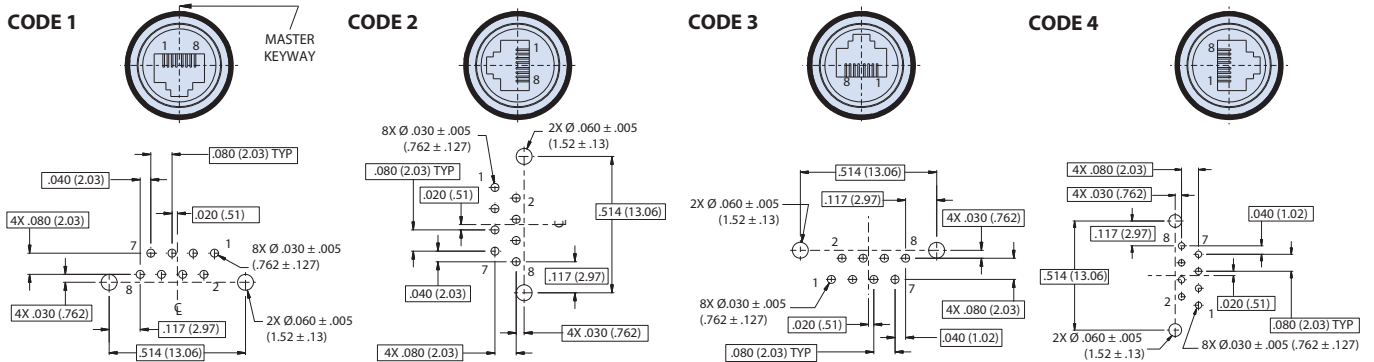


## 07 - REAR PANEL MOUNT JAM NUT RECEPTACLE



### Receptacle RJ45 Orientation Code

Recommended PCB Layout  
(Solder Side Of Board)



### NOTES

1. See Section A for panel cutout dimensions, PCB footprints



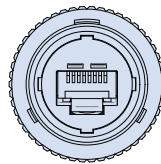
# RJ45 CAT 5E ETHERNET Series ITS (5015 type) Reverse-Bayonet ITS303 Receptacle with RJ45 Jack to Solder Cup Termination



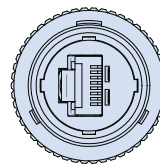
How to Order							
Sample Part Number	ITS303	03	G	18	5E	1	F7
Basic Number	ITS303						
Connector Style <sup>1</sup>	<b>03</b> = Rear Panel Mount Square Flange Receptacle <b>07</b> = Rear Panel Mount Jam Nut Receptacle						
Insert-to-Shell Grounding	<b>G</b> = Insert grounded to shell (for use with shielded cable) (Use only with G3, F11 or F7 finish) <b>Omit</b> = for none						
Shell Size	18						
RJ45 Category	<b>5E</b> = Cat 5E For Cat 6A applications consult factory						
RJ45 Orientation	1, 2, 3 or 4						
Material/Finish	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F11</b> = Aluminum/Electroless Nickel						

## RJ45 Orientation Options for Receptacle

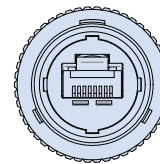
(In-line shell style shown for reference only, shell style not available)



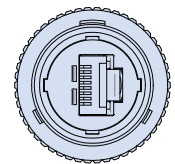
Code 1



Code 2



Code 3

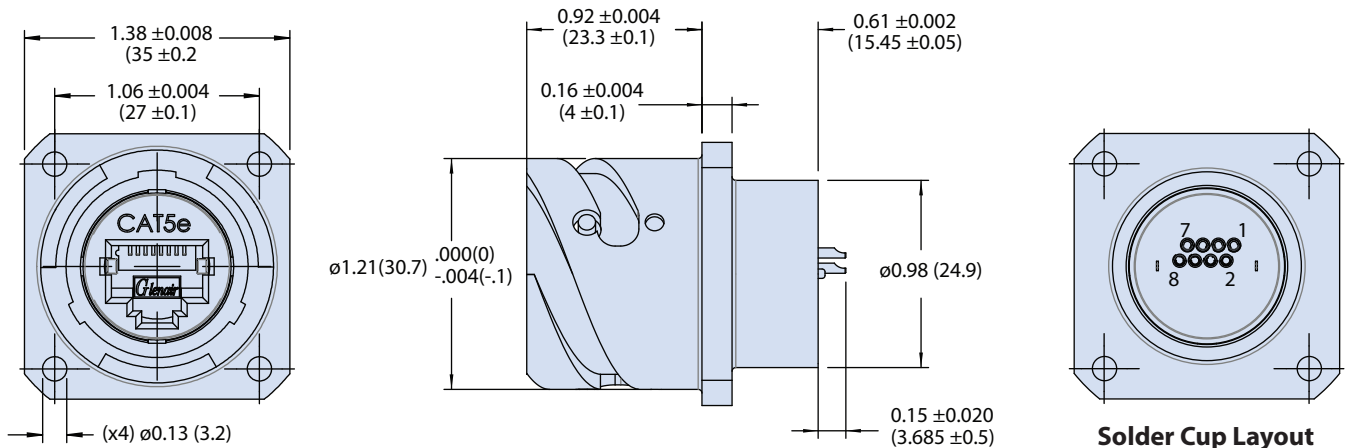


Code 4

## NOTES

- See Section A for panel cutout dimensions

## 03 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE

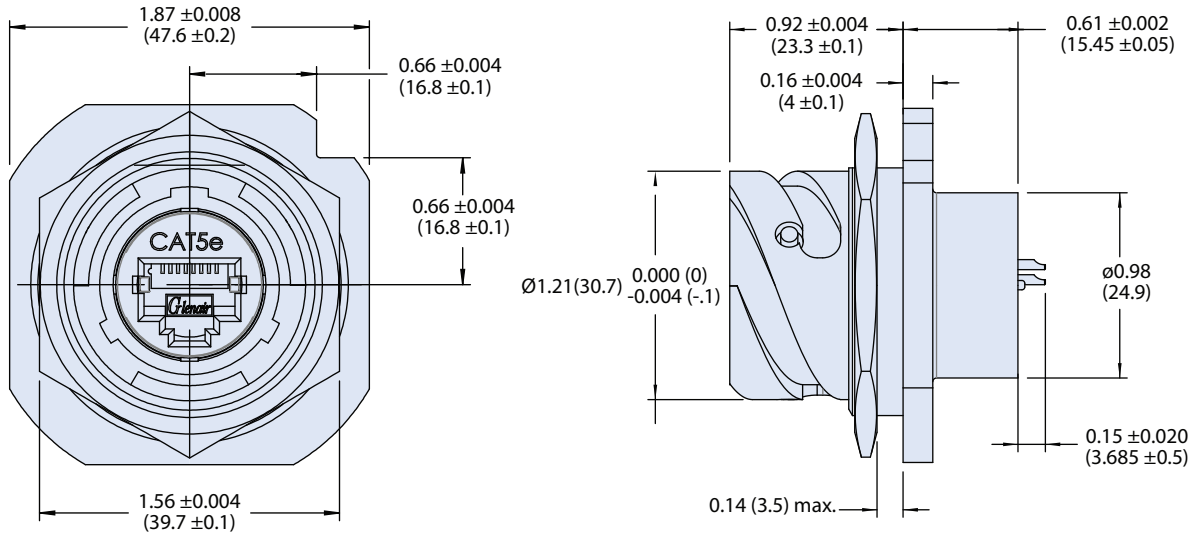




RJ45 CAT 5E ETHERNET  
Series ITS (5015 type) Reverse-Bayonet  
ITS303 Receptacle with  
RJ45 Jack to Solder Cup Termination



07 - REAR PANEL MOUNT JAM NUT RECEPTACLE



D



RJ45 CAT 5E ETHERNET

# Series ITS (5015 type) Reverse-Bayonet



## ITS330 Feedthrough Receptacle with Jack-to-Jack RJ45



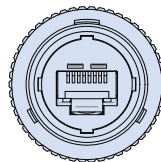
How to Order						
Sample Part Number	ITS330	03PP	18	5E	1	F7
Basic Number	ITS330					
Connector Style <sup>1</sup>	03PP = Rear Panel Mount Receptacle					
Shell Size	18					
RJ45 Category	5E = Cat 5E For Cat 6A applications consult factory					
RJ45 Orientation	1, 2, 3 or 4					
Material/Finish	Omit for Aluminum/Cadmium, Olive Drab (G3) F6 = Aluminum/Black Polymer Electrocoat F7 = Aluminum/Conductive Black Zinc Nickel F11 = Aluminum/Electroless Nickel					

### NOTES

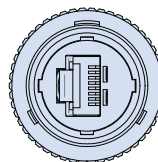
- See Section A panel cutout dimensions and complete material and finish options

### RJ45 Orientation Options for Receptacle

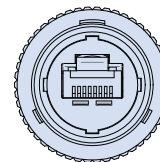
(In-line shell style shown for reference only, shell style not available)



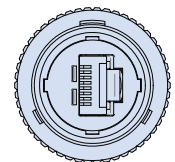
Code 1



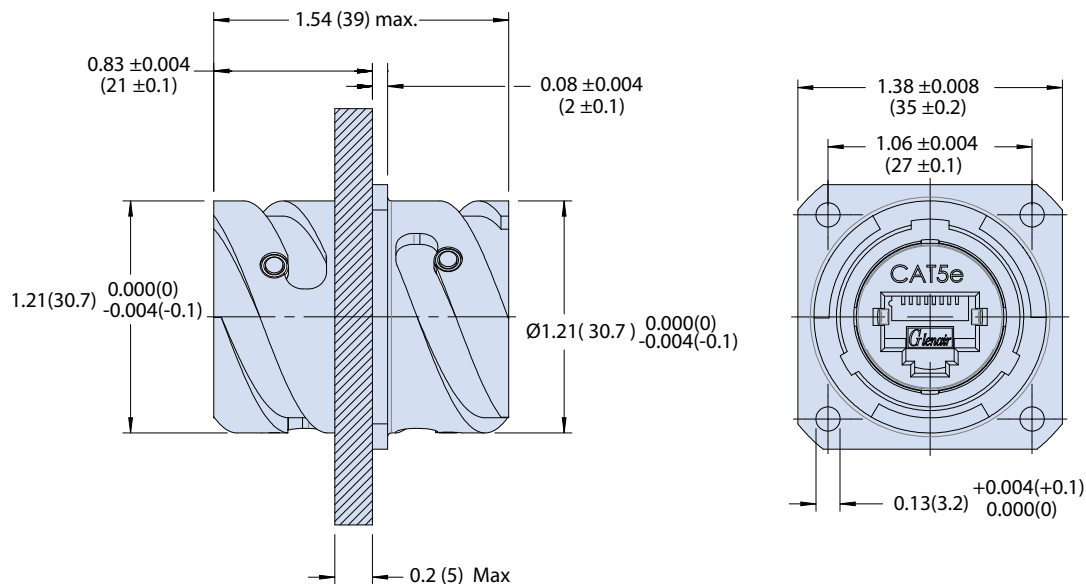
Code 2



Code 3



Code 4

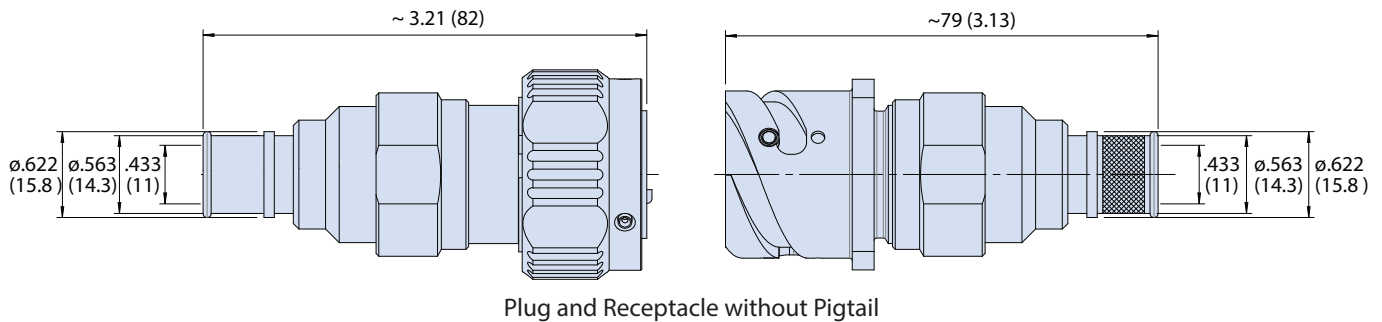




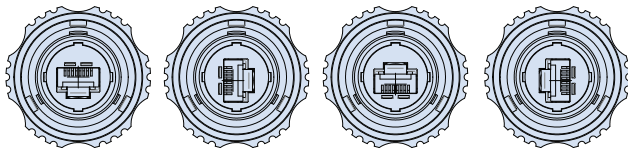
# RJ45 CAT 5E ETHERNET Series ITS (5015 type) Reverse-Bayonet ITS300H Connector and Backshell with Banding Porch and Shrink Boot Groove



How to Order	
<b>Sample Part Number</b>	<b>ITS300H 030 G 18 5E 1 ZL F7</b>
<b>Basic Number</b>	<b>ITS300H</b>
<b>Connector Style</b>	<b>030</b> = Rear Panel Mount Square Flange Receptacle <b>01</b> = InLine Receptacle <b>070</b> = Rear Panel Mount Jam Nut Receptacle <b>06</b> = Straight Plug Connector
<b>Insert-to-Shell Grounding</b>	<b>G</b> = Insert grounded to shell (for use with shielded cable) (Use only with G3, F11 or F7 finish) <b>Omit</b> = for none
<b>Shell Size</b>	<b>18</b>
<b>RJ45 Category</b>	<b>5E</b> = Cat 5E For Cat 6A applications consult factory
<b>RJ45 Orientation</b>	<b>1, 2, 3</b> or <b>4</b>
<b>Backshell</b>	<b>ZL</b> = With banding platform for direct attachment of cable shield and shrinkboot
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F11</b> = Aluminum/Electroless Nickel

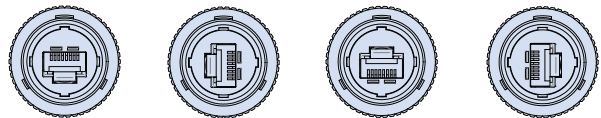


## RJ45 Plug Orientation Options



Code 1      Code 2      Code 3      Code 4

## RJ45 Receptacle Orientation Options



Code 1      Code 2      Code 3      Code 4

## HEAT SHRINK BOOT



Glenair P/N : **770-004S903W2**

**Must be ordered separately**

Type 9 flexible polyolefin short profile boots have an operating temperature range of -40°C to 100°C and provide very good resistance to fuels, oils and solvents. These boots fit most standard boot adapters for circular connectors and are specifically designed for low temperature rated CAT5e and USB cables.

## NOTES

1. See Section A panel cutout dimensions



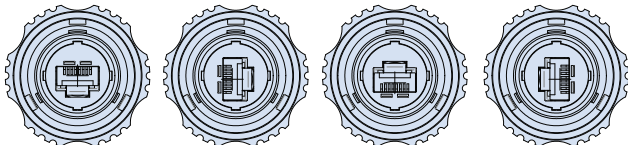
# RJ45 CAT 5E ETHERNET Series ITS (5015 type) Reverse-Bayonet



## ITS300H Connector and Backshell with Pigtail

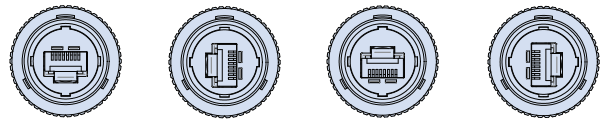
How to Order	
<b>Sample Part Number</b>	<b>ITS300H 030 G 18 5E 1 ZL 0.5 F7</b>
<b>Basic Number</b>	<b>ITS300H</b>
<b>Connector Style<sup>1</sup></b>	<b>030</b> = Rear Panel Mount Square Flange Receptacle <b>01</b> = InLine Receptacle <b>070</b> = Rear Panel Mount Jam Nut Receptacle <b>06</b> = Straight Plug Connector
<b>Insert-to-Shell Grounding</b>	<b>G</b> = Insert grounded to shell; available for receptacle only (for use with shielded cable) <b>Omit</b> = for none
<b>Shell Size</b>	<b>18</b>
<b>Cable Category</b>	<b>5E</b> = Cat 5E For Cat 6A applications consult factory
<b>RJ45 Orientation</b>	<b>1, 2, 3 or 4</b>
<b>Backshell</b>	<b>ZL</b> = With banding platform for direct attachment of cable shield and shrinkboot pre-installed
<b>Cable Length</b>	<b>0.5</b> = 0.5 meter (20 inch) increments
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F11</b> = Aluminum/Electroless Nickel

### RJ45 Plug Orientation Options



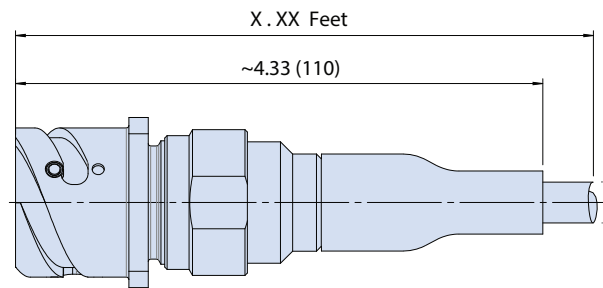
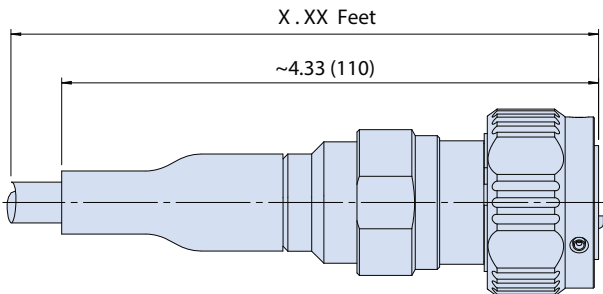
Code 1      Code 2      Code 3      Code 4

### RJ45 Receptacle Orientation Options



Code 1      Code 2      Code 3      Code 4

### Plug and Receptacle with Pigtail



### NOTES

1. See Section A panel cutout dimensions

Cable length to be ordered in 20in (0.5 mt) increments

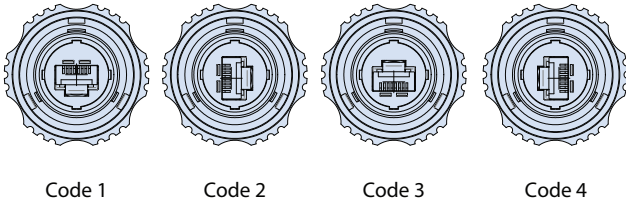


# RJ45 CAT 5E ETHERNET Series ITS (5015 type) Reverse-Bayonet ITS300H Connector and Backshell with Cable Gland Backshell

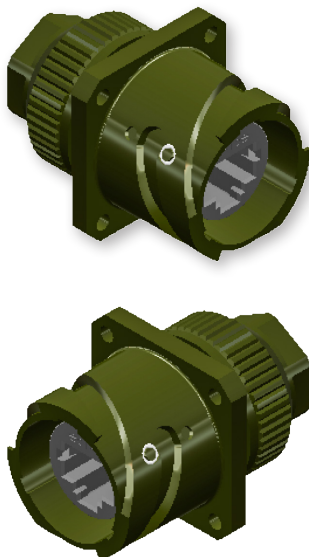
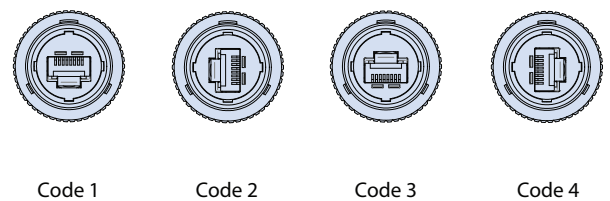


How to Order	
<b>Sample Part Number</b>	<b>ITS300H 030 G 18 5E 1 M F7</b>
<b>Basic Number</b>	<b>ITS300H</b>
<b>Connector Style<sup>1</sup></b>	<b>030</b> = Rear Panel Mount Square Flange Receptacle <b>01</b> = InLine Receptacle <b>070</b> = Rear Panel Mount Jam Nut Receptacle <b>06</b> = Straight Plug Connector
<b>Insert-to-Shell Grounding</b>	<b>G</b> = Insert grounded to shell; available for receptacle only (for use with shielded cable) <b>Omit</b> = for none
<b>Shell Size</b>	<b>18</b>
<b>RJ45 Category</b>	<b>5E</b> = Cat 5E For Cat 6A applications consult factory
<b>RJ45 Orientation</b>	<b>1, 2, 3</b> or <b>4</b>
<b>Backshell with Internal Thread</b>	<b>M</b> = M16 x 1.5 <b>PG</b> = PG9
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F11</b> = Aluminum/Electroless Nickel

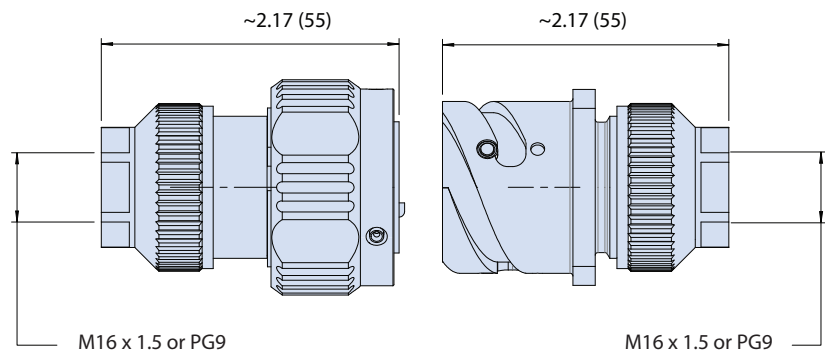
### RJ45 Plug Orientation Options



### RJ45 Receptacle Orientation Options



Plug and Receptacle internal threaded backshell without Cable Gland  
(Other Backshells option are available, please consult the factory)



### NOTES

1. See Section A panel cutout dimensions

D

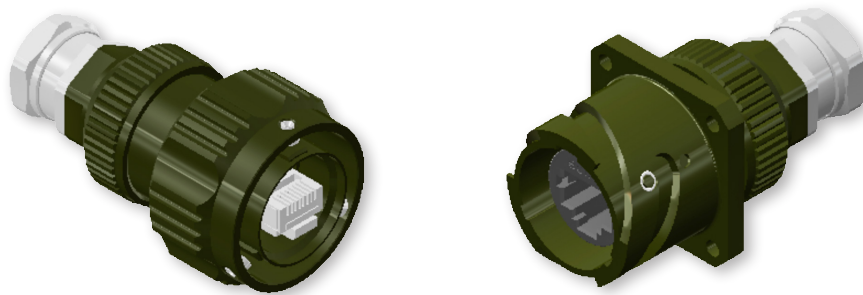


# RJ45 CAT 5E ETHERNET Series ITS (5015 type) Reverse-Bayonet ITS300H Connector and Backshell with Metallic Cable Gland with or without Pigtails



How to Order	
<b>Sample Part Number</b>	<b>ITS300H 030 G 18 5E 1 MS1 0.5 F6</b>
<b>Basic Number</b>	<b>ITS300H</b>
<b>Connector Style<sup>1</sup></b>	<b>030</b> = Rear Panel Mount Square Flange Receptacle <b>01</b> = InLine Receptacle <b>070</b> = Rear Panel Mount Jam Nut Receptacle <b>06</b> = Straight Plug Connector
<b>Insert-to-Shell Grounding</b>	<b>G</b> = Insert grounded to shell; available for receptacle only (for use with shielded cable) <b>Omit</b> = for none
<b>Shell Size</b>	<b>18</b>
<b>RJ45 Category</b>	<b>5E</b> = Cat 5E For Cat 6A applications consult factory
<b>RJ45 Orientation</b>	<b>1, 2, 3</b> or <b>4</b>
<b>Metallic Cable Gland</b>	See Metallic Cable Gland Table
<b>Cable Length</b>	<b>0.5</b> = 0.5 meter (20 inch) increments <b>Omit</b> for none
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F11</b> = Aluminum/Electroless Nickel

D



Metallic Cable Gland		
Type	Cable Range in(mm)	Shield
M1	.24-.31 (6 - 8)	No
M2	.31 - .40 (8 - 10)	No
MS1	.24-.31 (6 - 8)	Yes
MS2	.31-.40 (8 - 10)	Yes

## NOTES

1. See Section A panel cutout dimensions





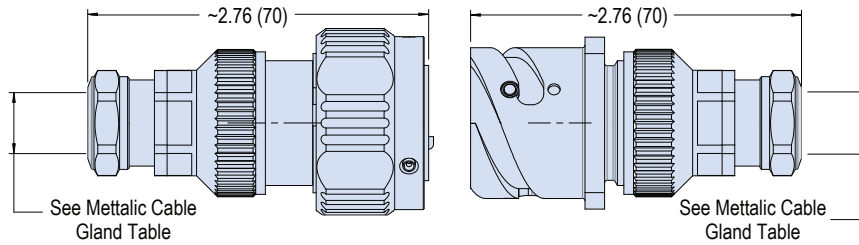
RJ45 CAT 5E ETHERNET

# Series ITS (5015 type) Reverse-Bayonet

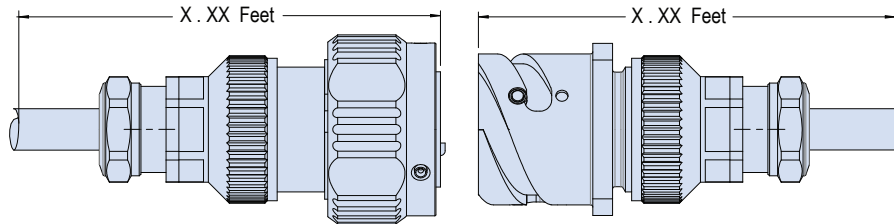


ITS300H Connector and Backshell with  
Metallic Cable Gland with or without Pigtails

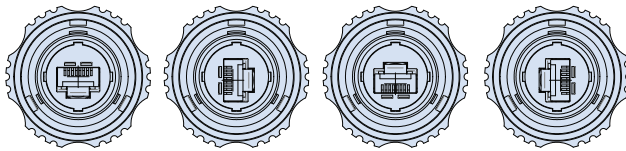
## PLUG AND RECEPTACLE WITHOUT PIGTAIL



## PLUG AND RECEPTACLE WITH PIGTAIL



### RJ45 Plug Orientation Options



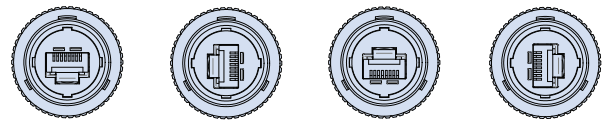
Code 1

Code 2

Code 3

Code 4

### RJ45 Receptacle Orientation Options



Code 1

Code 2

Code 3

Code 4



MIL-DTL-5015 TYPE  
FIELD-READY  
USB 2.0

# SUPERSEAL™

Rugged environmental 5015 intermountable reverse bayonet connectors with IP67 sealing, robust insert-to-shell grounding, and complete range of wire, cable, and PCB terminations



## Series ITS SuperSeal™ Advantages

- Intermountable 5015 style reverse-bayonet connectors for heavy-duty industrial and transportation applications
- Superior sealing—IP67 open face and IP68 mated — for complete system protection against water, sand and dust
- Highly durable USB design, including enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance
- Crimp, solder-cup, PC-tail, and wire termination options
- USB 2.0 plug and receptacle versions
- Available backshells provide strain-relief and environmental protection



Glenair, Inc.  
1211 Air Way  
Glendale, CA 91201-2497  
818-247-6000  
sales@glenair.com  
www.glenair.com



USB 2.0 TYPE A  
**Series ITS (5015 intermountable)**  
**Reverse Bayonet Coupling**  
 Product Selection Guide



**ITS340**

Page E-2

SuperSeal™ Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle).



**ITS342**

Page E-4

SuperSeal™ Receptacle with USB Female Interface to PC Tail Termination.



**ITS343**

Page E-5

SuperSeal™ Receptacle with USB Female Interface to Solder Cup Termination.



**ITS345**

Page E-6

SuperSeal™ Connectors with Accessory Threads and USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts.



**ITS370**

Page E-8

SuperSeal™ Feedthrough Receptacle with USB Female-to-Female Interface.



**ITS340H**

Page E-9

SuperSeal™ Connector and Backshell with Accessory Options.





USB 2.0 TYPE A

# Series ITS (5015 type) Reverse-Bayonet

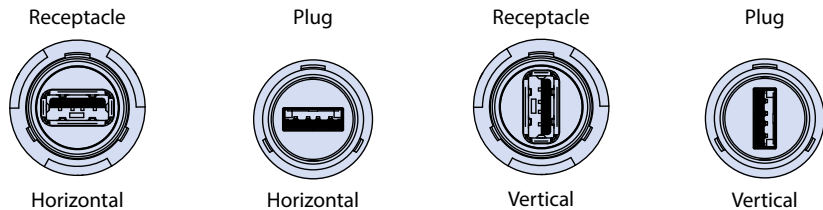


## ITS340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

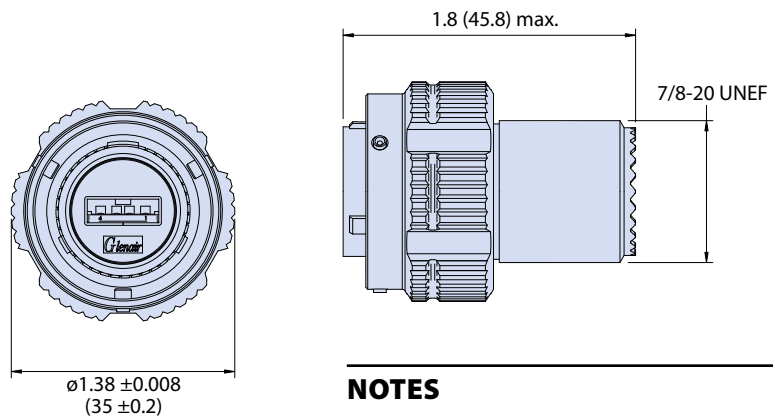


		How to Order							
Sample Part Number		<b>ITS340</b>	<b>030</b>	<b>16</b>	<b>2</b>	<b>A</b>	<b>A</b>	<b>H</b>	<b>F6</b>
Basic Number	<b>ITS340</b>								
Connector Style <sup>1</sup>	<b>06</b> = Plug with Accessory Thread <b>01</b> = InLine Receptacle with Accessory Thread <b>070</b> = Rear Panel Mount Jam Nut Receptacle with Accessory Thread <b>030</b> = Rear Panel Mount Square Flange Receptacle with Accessory Thread								
Shell Size	<b>16</b>								
USB Performance	<b>2</b> = 2.0								
USB Front Interface Type	<b>A</b> = Type A								
USB Rear Interface Type	<b>A</b> = Type A								
USB Orientation	<b>H</b> = Horizontal <b>V</b> = Vertical								
Material/Finish	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F11</b> = Aluminum/Electroless Nickel								

### USB Orientation Options



### 06 - PLUG WITH ACCESSORY THREADS



### NOTES

1. See Section A for panel cutout dimensions and finish plating options

E



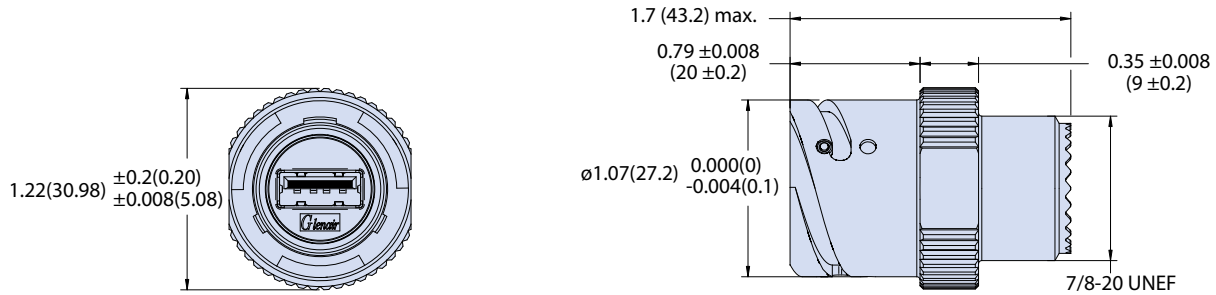
USB 2.0 TYPE A

Series ITS (5015 type) Reverse-Bayonet

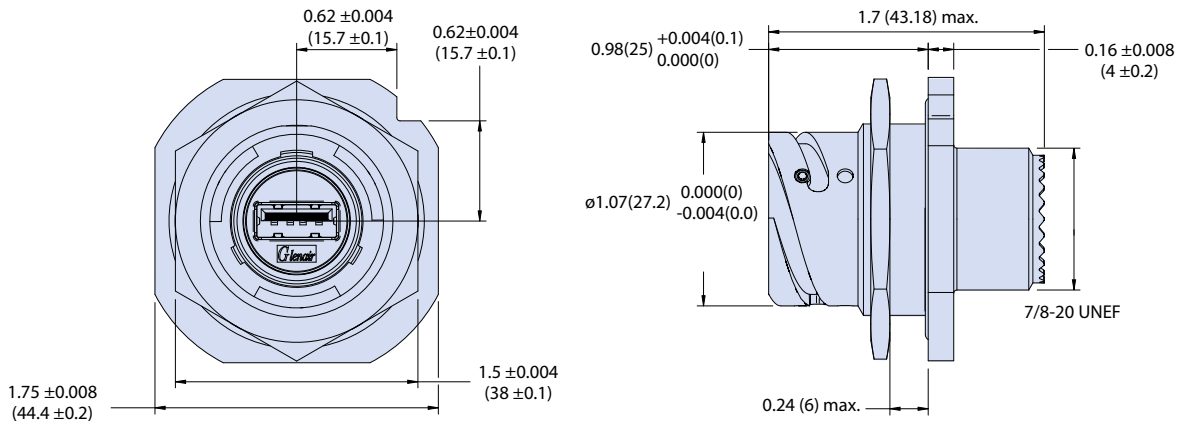


ITS340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

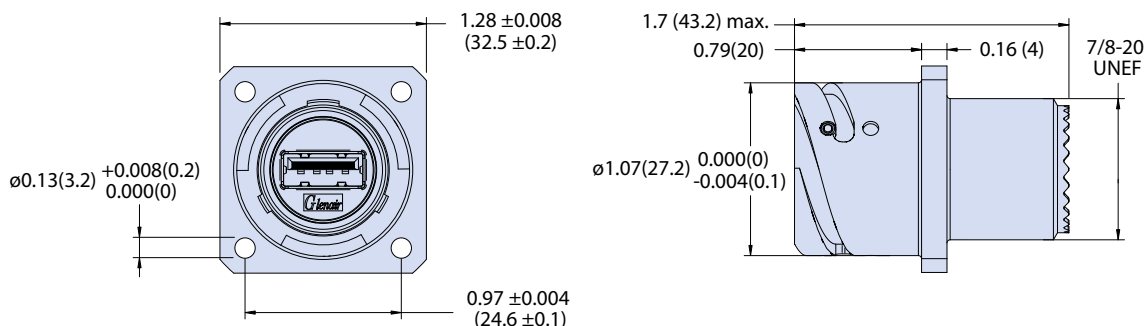
**01 - INLINE RECEPTACLE WITH ACCESSORY THREADS**



**070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS**



**030 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH ACCESSORY THREADS**





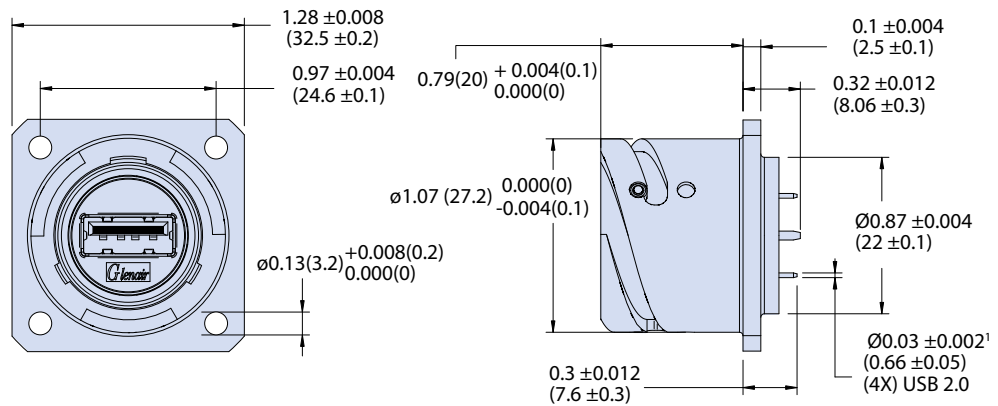
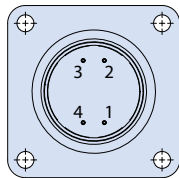
USB 2.0 TYPE A  
**Series ITS (5015 type) Reverse-Bayonet**  
 ITS342 Receptacle with USB  
 Female Interface to PC Tail Termination



How to Order							
<b>Sample Part Number</b>	<b>ITS342</b>	<b>03</b>	<b>16</b>	<b>2</b>	<b>A</b>	<b>H</b>	<b>F6</b>
<b>Basic Number</b>	<b>ITS342</b>						
<b>Connector Style<sup>1</sup></b>	<b>03</b> = Rear Panel Mount Square Flange Receptacle <b>07</b> = Rear Panel Mount Jam Nut Receptacle						
<b>Shell Size</b>	<b>16</b>						
<b>USB Performance</b>	<b>2</b> = 2.0						
<b>USB Interface Type</b>	<b>A</b> = Type A						
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical						
<b>Material/Finish</b>	<b>Omit</b> for Al/Cadmium, Olive Drab (G3)		<b>F7</b> = Al/Conductive Black Zinc Nickel		<b>F6</b> = Al/Black Polymer Electrocoat <b>F11</b> = Al/Electroless Nickel		

**03 - REAR PANEL MOUNT RECEPTACLE**

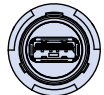
**Rear View**  
 Horizontal USB Orientation  
 Shown USB 2.0



**USB Orientation Options**

**HORIZONTAL**

Receptacle

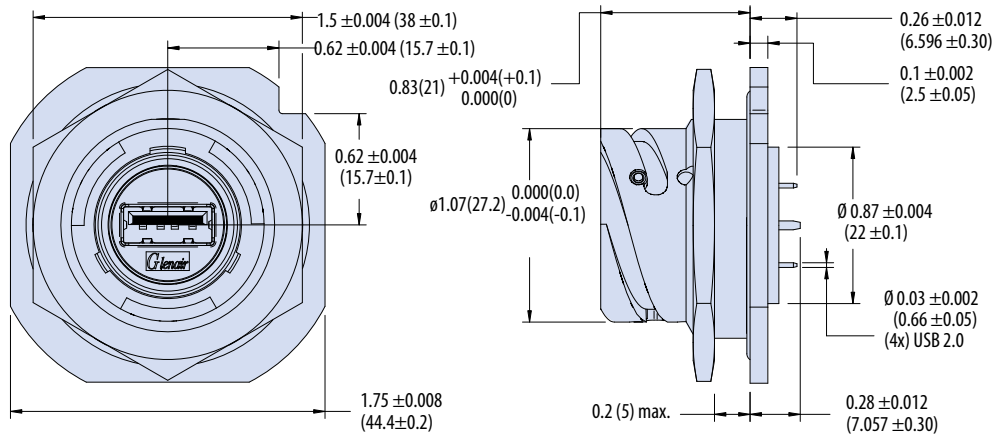


**VERTICAL**

Receptacle



**07 - REAR PANEL MOUNT JAM NUT RECEPTACLE**



**NOTES**

1. See Section A for panel cutout dimensions, PCB footprints and complete finish options

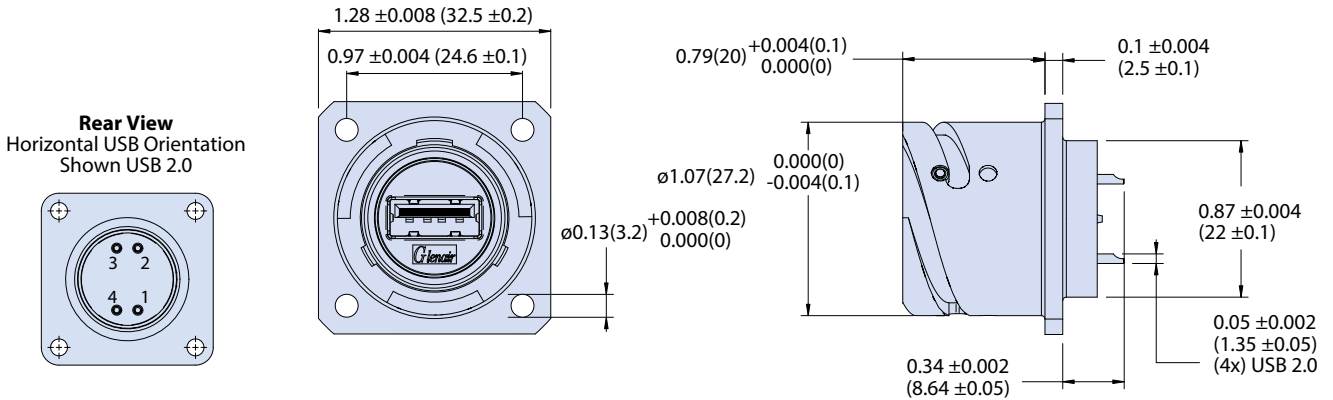


USB 2.0 TYPE A  
**Series ITS (5015 type) Reverse-Bayonet**  
**ITS343 Receptacle with USB**  
**Female Interface to Solder Cup Termination**



How to Order							
<b>Sample Part Number</b>	<b>ITS343</b>	<b>03</b>	<b>16</b>	<b>2</b>	<b>A</b>	<b>H</b>	<b>F6</b>
<b>Basic Number</b>	<b>ITS343</b>						
<b>Connector Style</b>	<b>03</b> = Rear Panel Mount Square Flange Receptacle <b>07</b> = Rear Panel Mount Jam Nut Receptacle						
<b>Shell Size</b>	<b>16</b>						
<b>USB Performance</b>	<b>2</b> = 2.0						
<b>USB Interface Type</b>	<b>A</b> = Type A						
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical						
<b>Material/Finish</b>	<b>Omit</b> for Al/Cadmium, Olive Drab (G3)			<b>F7</b> = Al/Conductive Black Zinc Nickel <b>F6</b> = Al/Black Polymer Electrocoat <b>F11</b> = Al/Electroless Nickel			

**03 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE**



**USB Orientation Options**

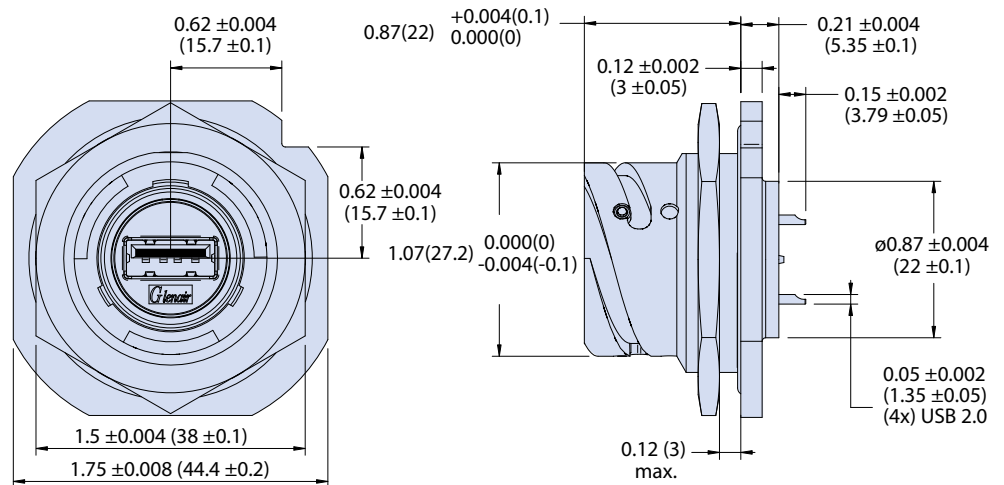
**HORIZONTAL**  
Receptacle



**VERTICAL**  
Receptacle



**07 - REAR PANEL MOUNT JAM NUT RECEPTACLE**



**NOTES**

- See Section A for panel cutout dimensions and complete finish options





USB 2.0 TYPE A

# Series ITS (5015 type) Reverse-Bayonet

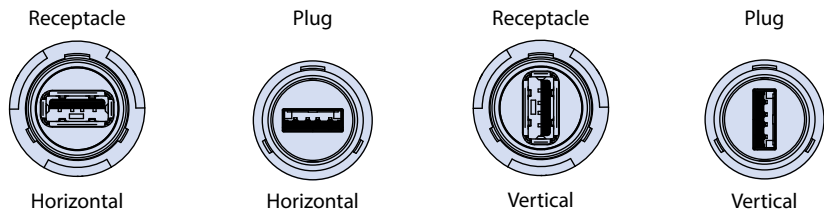


## ITS345 Connectors with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts



How to Order							
<b>Sample Part Number</b>	<b>ITS345</b>	<b>06</b>	<b>16</b>	<b>2</b>	<b>A</b>	<b>H</b>	<b>F6</b>
<b>Basic Number</b>	<b>ITS345</b>						
<b>Connector Style<sup>1</sup></b>	<b>06</b> = Plug with Accessory Threads <b>01</b> = InLine Receptacle w/ Accessory Thd <b>070</b> = Rear Panel Mount Jam Nut Receptacle with Accessory Thread <b>030</b> = Rear Panel Mount Square Flange Receptacle with Accessory Threads						
<b>Shell Size</b>	<b>16</b>						
<b>USB Performance</b>	<b>2</b> = 2.0						
<b>USB Interface Type</b>	<b>A</b> = Type A						
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical						
<b>Material/Finish</b>	<b>Omit</b> for Al/Cadmium, Olive Drab (G3) <b>F6</b> = Al/Black Polymer Electrocoat <b>F7</b> = Al/Conductive Black Zinc Nickel <b>F11</b> = Al/Electroless Nickel						

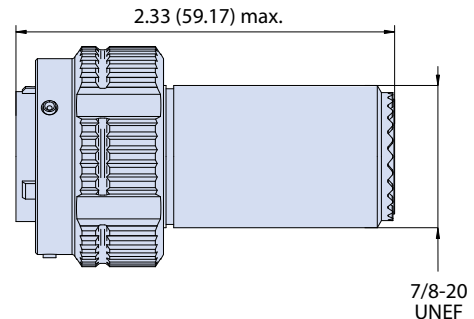
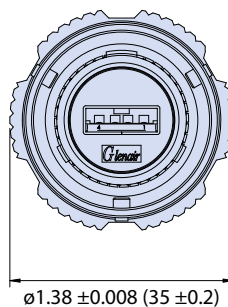
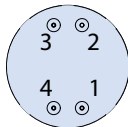
### USB Orientation Options



### 06 - PLUG WITH ACCESSORY THREADS

#### Rear View

Horizontal USB Orientation  
Shown USB 2.0 Type A Male



#### NOTES

1. See Section A for panel cutout dimensions

E





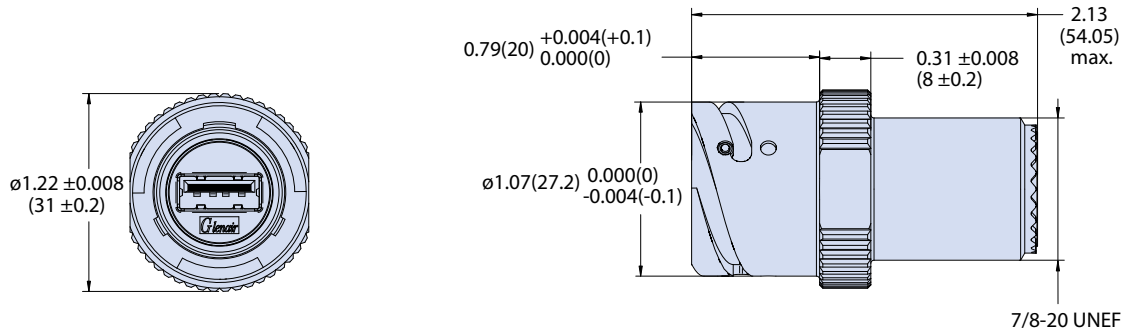
USB 2.0 TYPE A

# Series ITS (5015 type) Reverse-Bayonet

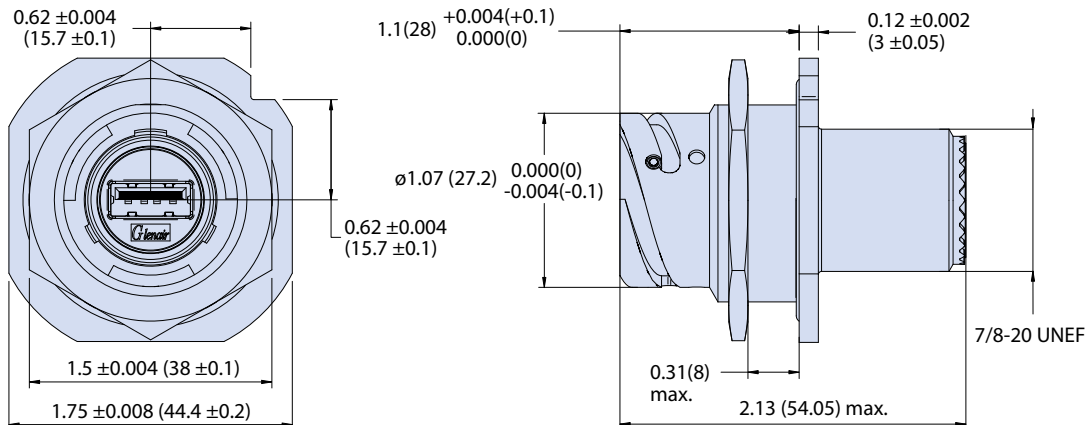


ITS345 Connectors with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts

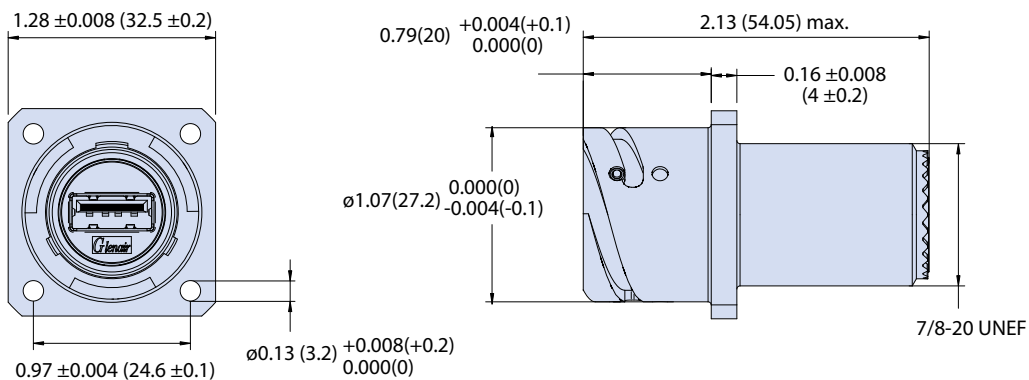
## 01 - INLINE RECEPTACLE WITH ACCESSORY THREADS



## 070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS



## 030 - REAR PANEL MOUNT RECEPTACLE WITH ACCESSORY THREADS





USB 2.0 TYPE A

# Series ITS (5015 type) Reverse-Bayonet

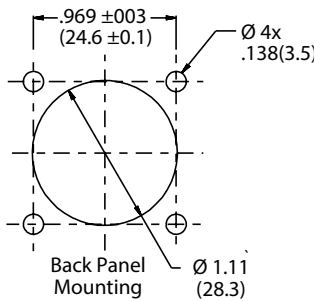


## ITS370 Feedthrough Receptacle with USB Female-to-Female Interface

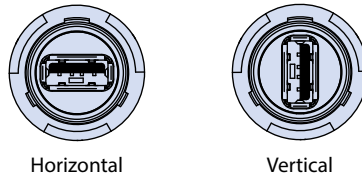


		How to Order							
Sample Part Number		ITS370	03PP	16	2	A	A	H	F6
Basic Number		ITS370							
Connector Style <sup>1</sup>		03PP = Rear panel mount receptacle bulkhead feed through							
Shell Size		16							
USB Performance		2 = 2.0							
USB Front Interface Type		A = Type A							
USB Rear Interface Type		A = Type A							
USB Orientation		H = Horizontal V = Vertical							
Material/Finish		Omit for Al/Cadmium, Olive Drab (G3) F6 = Black Polymer Electrocoat F7 = Conductive Black Zinc Nickel F11 = Electroless Nickel							

### Recommended Panel Cutout



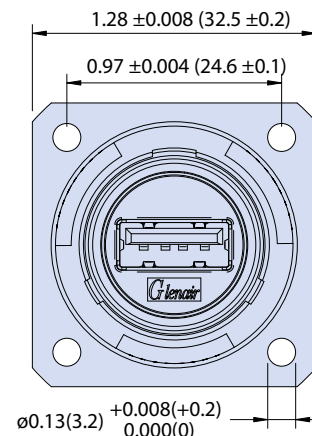
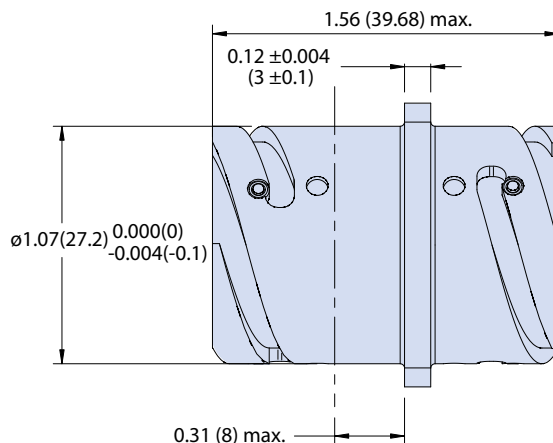
### USB RECEPTACLE ORIENTATION OPTIONS



### NOTES

- See Section A for panel cutout dimensions

### Square Flange Mount Recommended Mounting Holes Panel Thickness .315 (8) Max



E

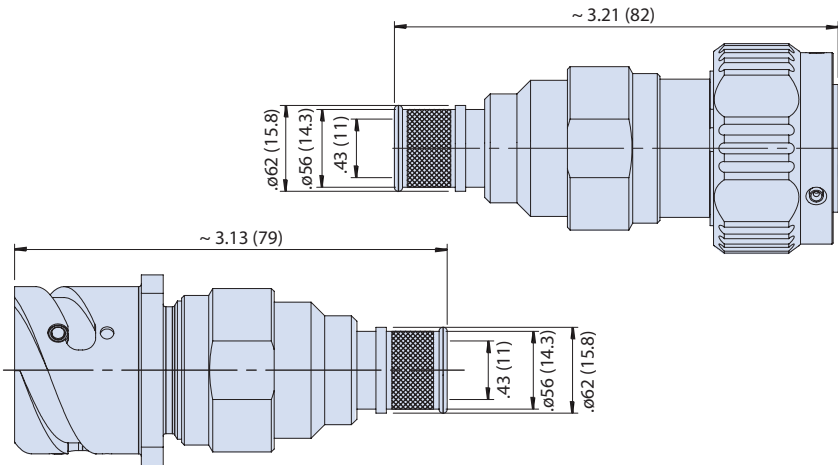


# USB 2.0 TYPE A Series ITS (5015 type) Reverse-Bayonet ITS340H Connector and Backshell with Banding Porch and Shrink Boot Groove



How to Order	
<b>Sample Part Number</b>	ITS340H 030 16 2 A A H ZL F6
<b>Basic Number</b>	ITS340H
<b>Connector Style<sup>1</sup></b>	06 = Plug with Accessory Thread 01 = InLine Receptacle with Accessory Thread 070 = Rear Panel Mount Jam Nut Receptacle with Accessory Thread 030 = Rear Panel Mount Square Flange Receptacle with Accessory Thread
<b>Shell Size</b>	16
<b>USB Performance</b>	2 = 2.0
<b>USB Front Interface Type</b>	A = Type A
<b>USB Rear Interface Type</b>	A = Type A
<b>USB Orientation</b>	H = Horizontal V = Vertical
<b>Backshell</b>	ZL = With banding platform for direct attachment of cable shield and shrink boot
<b>Material/Finish</b>	Omit for Aluminum/Cadmium, Olive Drab (G3) F7 = Aluminum/Conductive Black Zinc Nickel F6 = Aluminum/Black Polymer Electrocoat F11 = Aluminum/Electroless Nickel

### Plug and Receptacle without Pigtail



### HEAT SHRINK BOOT

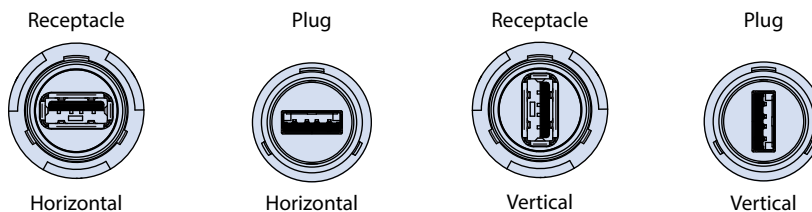


Glenair P/N : 770-004S903W2

#### Must be ordered separately

Type 9 flexible polyolefin short profile boots have an operating temperature range of  $-40^{\circ}\text{C}$  to  $100^{\circ}\text{C}$  and provide very good resistance to fuels, oils and solvents. These boots fit most standard boot adapters for circular connectors and are specifically designed for low temperature rated CAT5e and USB cables.

### USB Orientation Options



### NOTES

1. See Section A for panel cutout dimensions and complete finish options



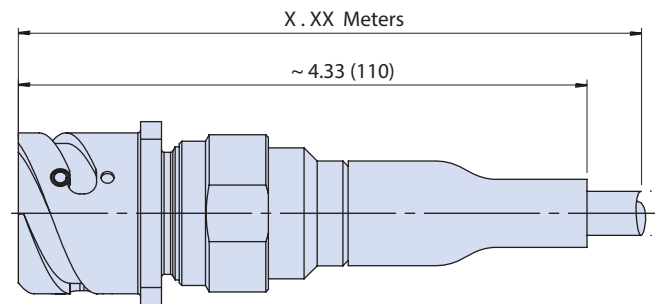
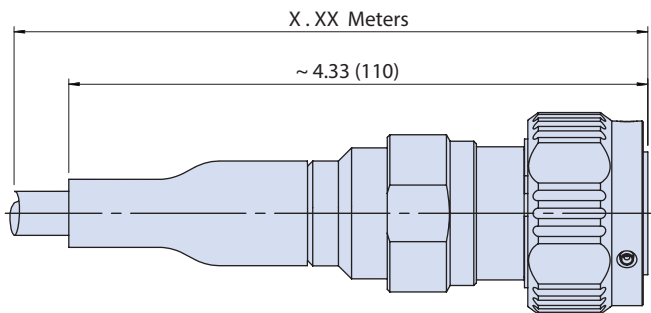
USB 2.0 TYPE A

# Series ITS (5015 type) Reverse-Bayonet



## ITS340H Connector and Backshell with Pigtail

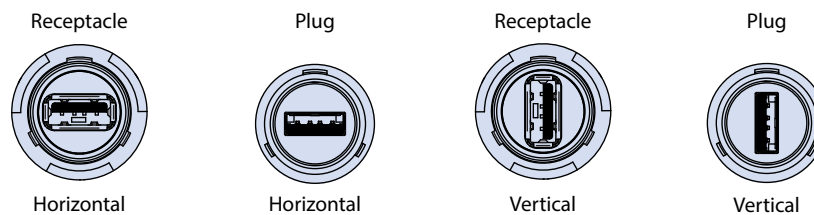
How to Order	
<b>Sample Part Number</b>	<b>ITS340H 030 16 2 A A H ZL 0.5 F6</b>
<b>Basic Number</b>	<b>ITS340H</b>
<b>Connector Style<sup>1</sup></b>	<b>030</b> = Rear Panel Mount Square Flange Receptacle with Accessory Threads <b>01</b> = InLine Receptacle with Accessory Threads <b>070</b> = Rear Panel Mount Jam Nut Receptacle with Accessory Threads <b>06</b> = Straight Plug Connector with Accessory Threads
<b>Shell Size</b>	<b>16</b>
<b>USB Performance</b>	<b>2</b> = 2.0
<b>USB Front Interface Type</b>	<b>A</b> = Type A
<b>USB Rear Interface Type</b>	<b>A</b> = Type A
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical
<b>Backshell</b>	<b>ZL</b> = Backshell with banding platform for direct attachment of cable shield and shrink boot pre-installed
<b>Cable Length</b>	<b>0.5</b> = 0.5 meter pigtail (20 inches)*; See High Data Rate Cable P/N 963-012
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F11</b> = Aluminum/Electroless Nickel



\*Cable length to be ordered in 0.5 mt (20 inch) increments

### Plug and Receptacle with Pigtail

#### USB Orientation Options



#### NOTES

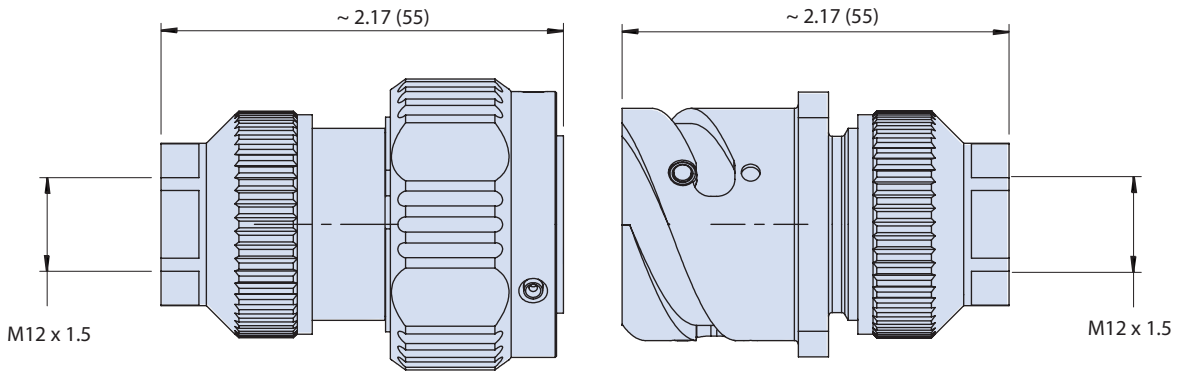
1. See Section A for panel cutout dimensions and complete finish options



USB 2.0 TYPE A  
**Series ITS (5015 type) Reverse-Bayonet**  
**ITS340H Connector with**  
**Internal Metric Thread Backshell**

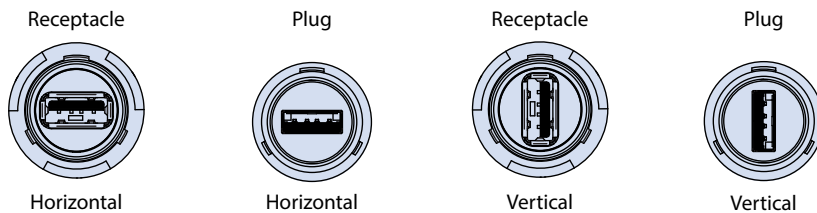


How to Order	
<b>Sample Part Number</b>	<b>ITS340H 030 16 2 A A H M F6</b>
<b>Basic Number</b>	<b>ITS340H</b>
<b>Connector Style<sup>1</sup></b>	<b>030</b> = Rear Panel Mount Square Flange Receptacle with Accessory Threads <b>01</b> = InLine Receptacle with Accessory Threads <b>070</b> = Rear Panel Mount Jam Nut Receptacle with Accessory Threads <b>06</b> = Straight Plug Connector with Accessory Threads
<b>Shell Size</b>	<b>16</b>
<b>USB Performance</b>	<b>2</b> = 2.0
<b>USB Front Interface Type</b>	<b>A</b> = Type A
<b>USB Rear Interface Type</b>	<b>A</b> = Type A
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical
<b>Backshell</b>	<b>M</b> = Backshell with metric thread
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium Olive Drab (G3) <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F11</b> = Aluminum/Electroless Nickel



**Plug and Receptacle without Cable Gland**  
**(Other Backshells option are available, please consult the factory)**

**USB Orientation Options**



**NOTES**

1. See Section A for panel cutout dimensions and complete finish options





USB 2.0 TYPE A

# Series ITS (5015 type) Reverse-Bayonet

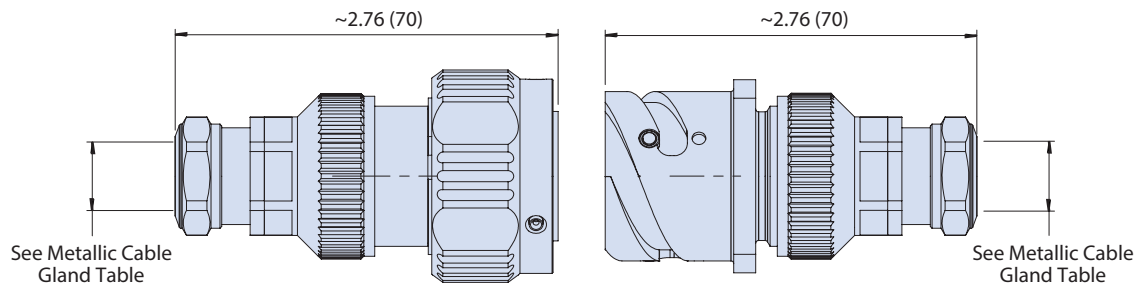


## ITS340H Connector and Backshell with Metallic Cable Gland, with or without Pigtails

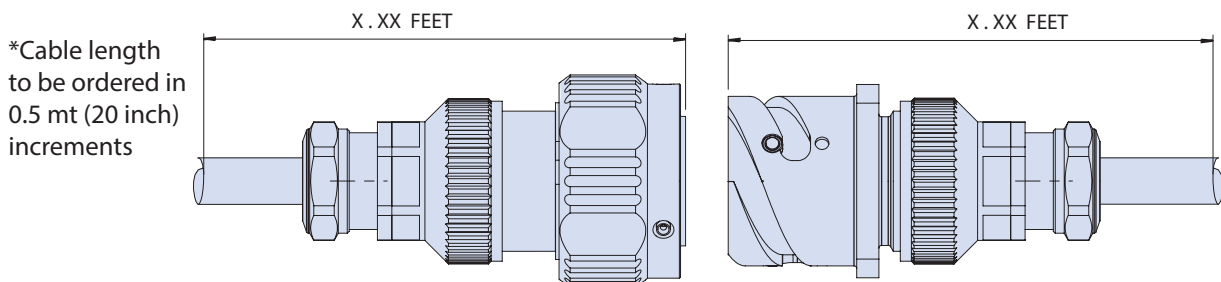
How to Order	
<b>Sample Part Number</b>	ITS340H 030 16 2 A A H MS1 0.5 F6
<b>Basic Number</b>	ITS340H
<b>Connector Style<sup>1</sup></b>	030 = Rear Panel Mount Square Flange Receptacle with Accessory Threads 01 = InLine Receptacle with Accessory Threads 070 = Rear Panel Mount Jam Nut Receptacle with Accessory Threads 06 = Straight Plug Connector with Accessory Threads
<b>Shell Size</b>	16
<b>USB Performance</b>	2 = 2.0
<b>USB Front Interface Type</b>	A = Type A
<b>USB Rear Interface Type</b>	A = Type A
<b>USB Orientation</b>	H = Horizontal V = Vertical
<b>Metallic Cable Gland</b>	See Metallic Cable Gland Table
<b>Cable Length</b>	0.5 = 0.5 mt. (20 inch) pigtail Omit for None
<b>Material/Finish</b>	Omit for Aluminum/Cadmium, Olive Drab (G3) F7 = Aluminum/Conductive Black Zinc Nickel F6 = Aluminum/Black Polymer Electrocoat F11 = Aluminum/Electroless Nickel

### NOTES

- See Section A for panel cutout dimensions and complete finish options

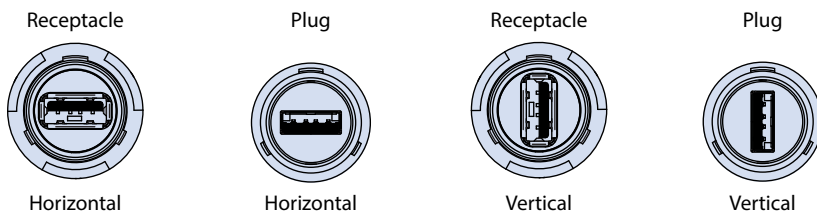


Plug and Receptacle without Pigtail



Plug and Receptacle with Pigtail

### USB Orientation Options

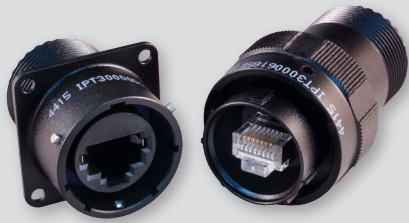


Metallic Cable Gland		
Type	Cable Range	Shield
M1	.13 - .19 (3.5 - 5)	No
M2	.25 - .31 (6.5 - 8)	No
MS1	.17 - .23 (4.5 - 6)	Yes
MS2	.23 - .29 (6 - 7.5)	Yes



# RJ45 CAT 5E ETHERNET Series IPT (26482 Type) Bayonet Coupler

## Product Selection Guide



### IPT300

Page F-2

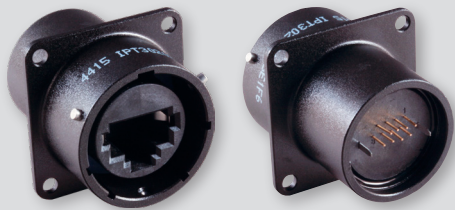
SuperSeal™ Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle).



### IPT301

Page F-4

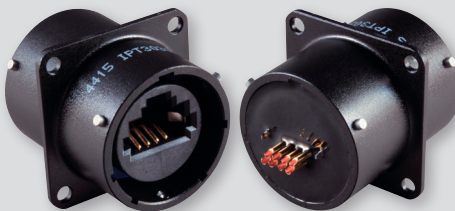
SuperSeal™ Connector with Accessory Threads and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.



### IPT302

Page F-6

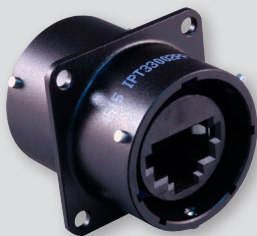
SuperSeal™ Receptacle with Jack to PC Tail Termination.



### IPT303

Page F-7

SuperSeal™ Receptacle with Jack to Solder Cup Termination.



### IPT330

Page F-8

SuperSeal™ Feedthrough Receptacle with Jack-to-Jack RJ45.



### IPT300H

Page F-9

SuperSeal™ Connector and Backshell Options.



RJ45 CAT 5E ETHERNET

# Series IPT (26482 Type) Bayonet Coupler

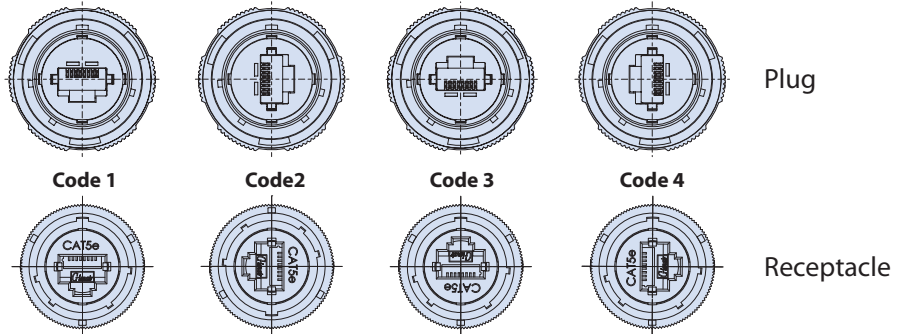


IPT300 Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)



How to Order							
<b>Sample Part Number</b>	<b>IPT300</b>	<b>00</b>	<b>G</b>	<b>18</b>	<b>5E</b>	<b>1</b>	<b>F7</b>
<b>Basic Number</b>	<b>IPT300</b>						
<b>Connector Style<sup>1</sup></b>	<b>00</b> = Front Panel Mount Square Flange Receptacle <b>01</b> = In-Line Receptacle <b>070</b> = Rear Panel Mounting Jam Nut Receptacle <b>06</b> = Straight Plug						
<b>Insert-to-Shell Grounding</b>	<b>G</b> = Insert grounded to shell; available for receptacle only (for use with shielded cable) <b>Omit</b> = for none						
<b>Shell Size</b>	<b>18</b>						
<b>RJ45 Category<sup>2</sup></b>	<b>5E</b> = Cat 5E For Cat 6A applications consult factory						
<b>RJ45 Orientation</b>	<b>1,2,3</b> or <b>4</b>						
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F11</b> = Aluminum/Electroless Nickel						

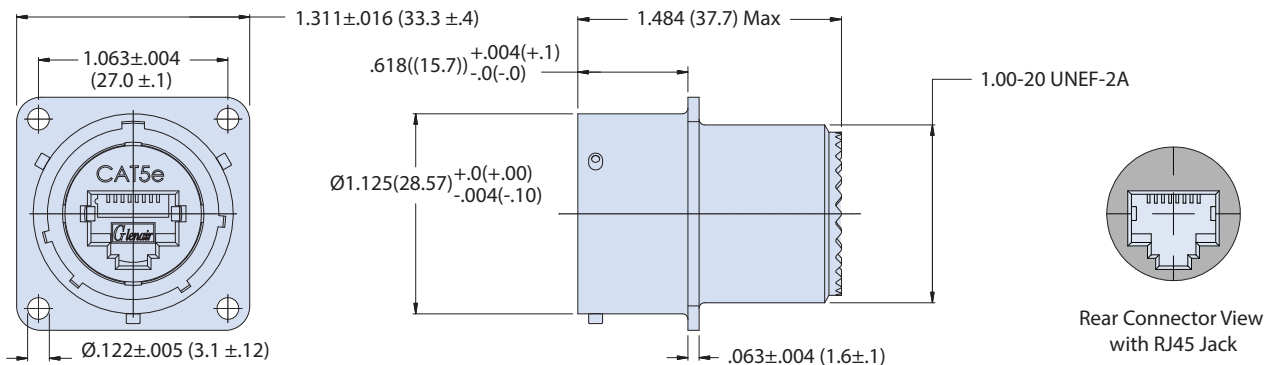
### RJ45 Orientation Options



### NOTES

1. See Section A for recommended panel cut out dimensions
2. Plugs are plug/jack and receptacles are jack/jack

### 00 - FRONT PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH ACCESSORY THREADS



F





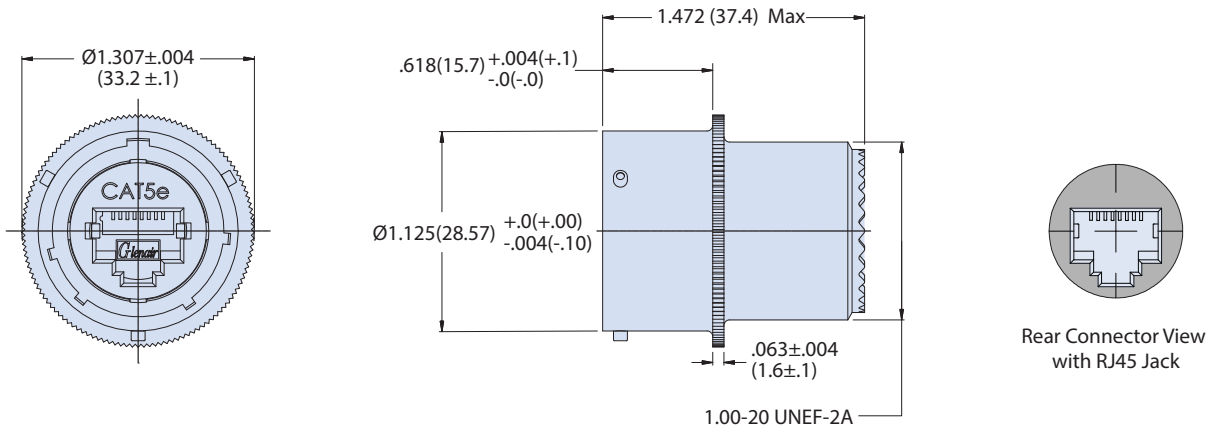
RJ45 CAT 5E ETHERNET

# Series IPT (26482 Type) Bayonet Coupler

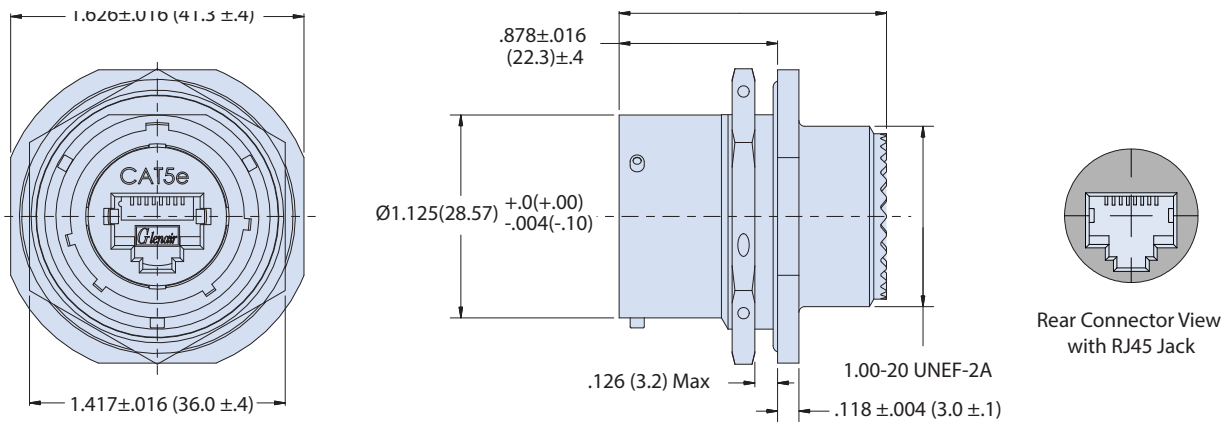


IPT300 Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)

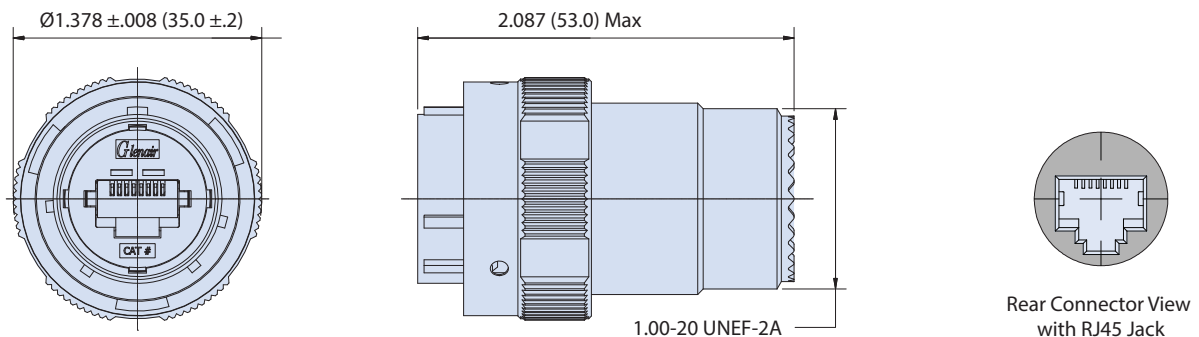
## 01 - INLINE RECEPTACLE WITH ACCESSORY THREADS



## 070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS



## 06 - PLUG WITH ACCESSORY THREADS





RJ45 CAT 5E ETHERNET

# Series IPT (26482 Type) Bayonet Coupler

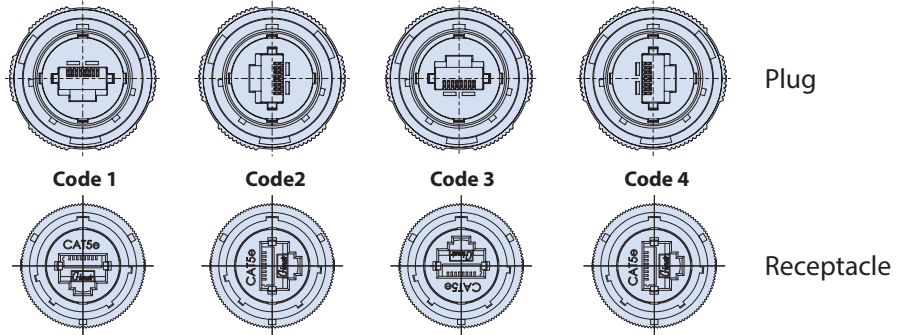


IPT301 Connector with Accessory Threads and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts



How to Order	
<b>Sample Part Number</b>	<b>IPT301 00 G 18 5E 1 F7</b>
<b>Basic Number</b>	<b>IPT301</b>
<b>Connector Style</b>	<b>00</b> = Front Panel Mount Square Flange Receptacle <b>01</b> = In-Line Receptacle <b>070</b> = Rear Panel Mounting Jam Nut Receptacle <b>06</b> = Straight Plug
<b>Insert-to-Shell Grounding</b>	<b>G</b> = Insert grounded to shell; available for receptacle only (for use with shielded cable) <b>Omit</b> = for none
<b>Shell Size</b>	<b>18</b>
<b>RJ45 Category</b>	<b>5E</b> = Cat 5E For Cat 6A applications consult factory
<b>RJ45 Orientation</b>	<b>1,2,3 or 4</b>
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F11</b> = Aluminum/Electroless Nickel

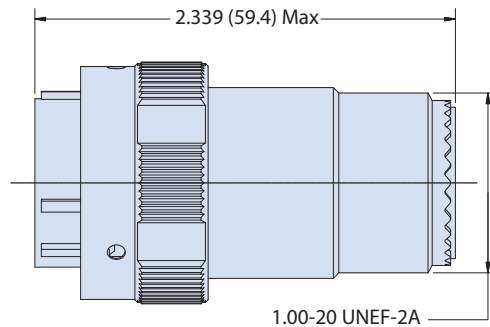
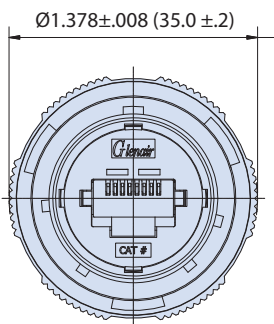
### RJ45 Orientation Options



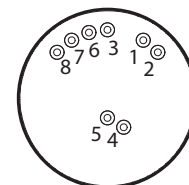
### NOTES

- See Section A for recommended panel cut out dimensions

### 06 - PLUG WITH ACCESSORY THREADS



### Crimp Layout (Code 1 Orientation Shown)



F



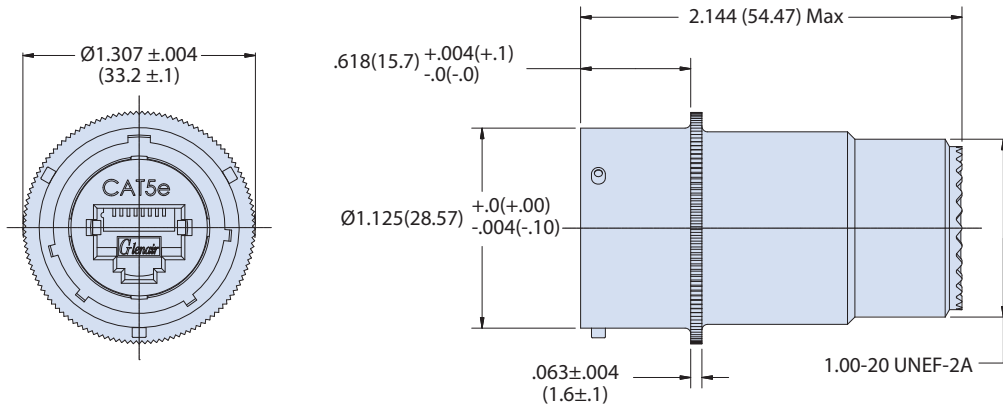
RJ45 CAT 5E ETHERNET

# Series IPT (26482 Type) Bayonet Coupler

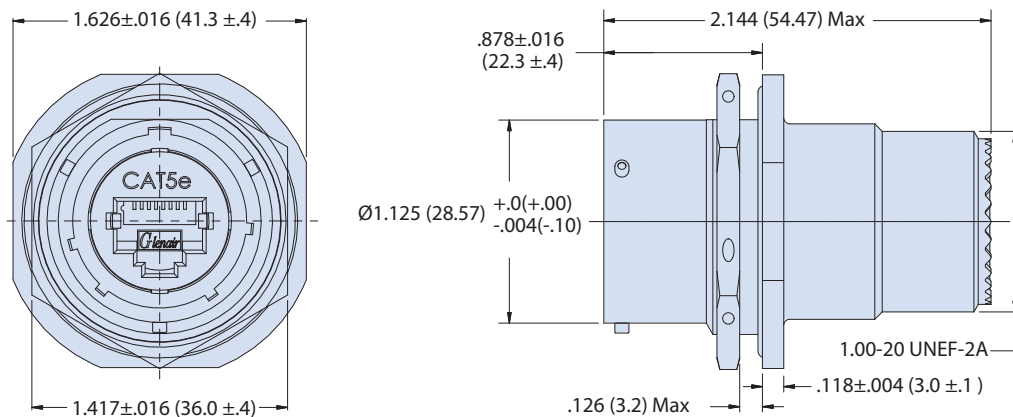


IPT301 Connector with Accessory Threads and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

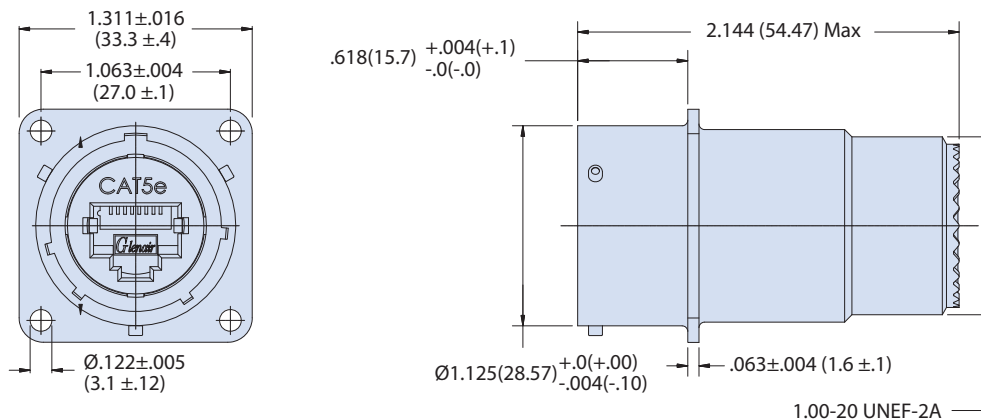
## 01 - INLINE RECEPTACLE WITH ACCESSORY THREADS



## 070 - REAR PANEL MOUNTING JAM NUT RECEPTACLE WITH ACCESSORY THREADS



## 00 - FRONT PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH ACCESSORY THREADS





# RJ45 CAT 5E ETHERNET Series IPT (26482 Type) Bayonet Coupler

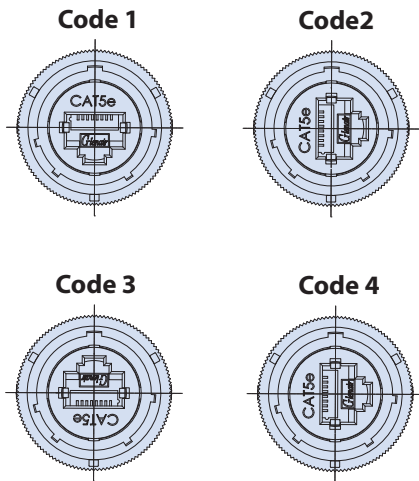


## IPT302 Receptacle with Jack to PC Tail Termination

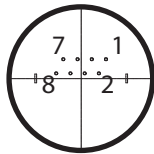


How to Order							
Sample Part Number	IPT302	02	G	18	5E	1	F7
Basic Number	IPT302						
Connector Style <sup>1</sup>	02 = Front panel Mount Square Flange Receptacle 07 = Rear Panel Mount Jam Nut Receptacle						
Insert-to-Shell Grounding	G = Insert grounded to shell Omit for none (for use with shielded cable) (Use only with G3, F11 or F7 finish)						
Shell Size	18						
RJ45 Category <sup>2</sup>	5E = Cat 5E For Cat 6A applications consult factory						
RJ45 Orientation	1,2,3 or 4						
Material/Finish	Omit for Aluminum/Cadmium, Olive Drab (G3) F6 = Aluminum/Black Polymer Electrocoat F7 = Aluminum/Conductive Black Zinc Nickel F11 = Aluminum/Electroless Nickel						

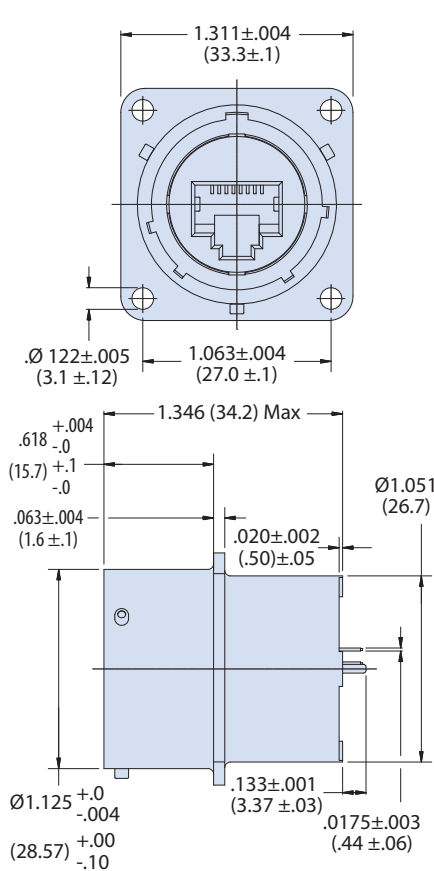
### RJ45 Receptacle, Orientation Options



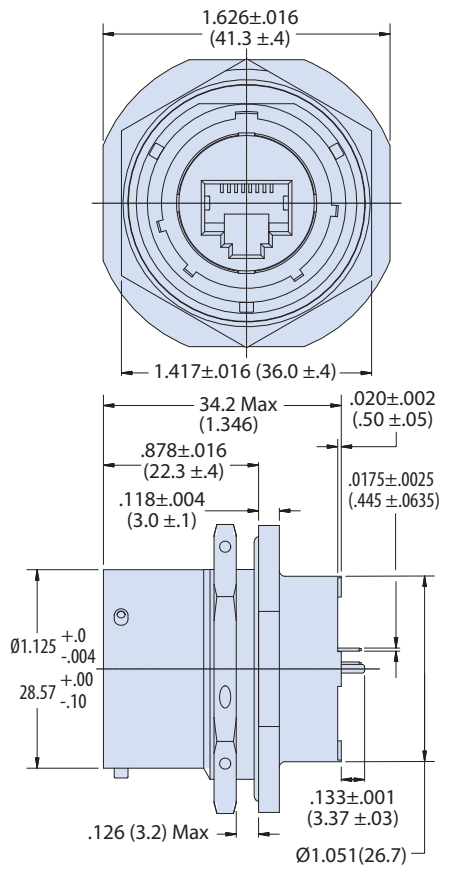
### PC tail layout (Code 1 Orientation Shown)



### 02 - FRONT PANEL MOUNT SQUARE FLANGE RECEPTACLE



### 07 - REAR PANEL MOUNTING JAM NUT RECEPTACLE



### NOTES

- See Section A for recommended panel cut out dimensions

F



# RJ45 CAT 5E ETHERNET Series IPT (26482 Type) Bayonet Coupler

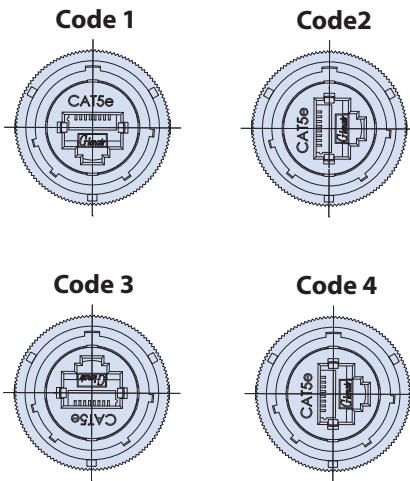


## IPT303 Receptacle with Jack to Solder Cup Termination

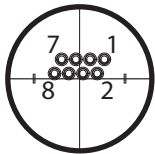


How to Order	
<b>Sample Part Number</b>	<b>IPT303 02 G 18 5E 1 F7</b>
<b>Basic Number</b>	<b>IPT303</b>
<b>Connector Style<sup>1</sup></b>	<b>02</b> = Front Panel Square Flange Mount Receptacle <b>07</b> = Rear Panel Mount Jam Nut Receptacle
<b>Insert-to-Shell Grounding</b>	<b>G</b> = Insert grounded to shell <b>Omit</b> for none (for use with shielded cable) (Use only with G3, F11 or F7 finish)
<b>Shell Size</b>	<b>18</b>
<b>RJ45 Category<sup>2</sup></b>	<b>5E</b> = Cat 5E For Cat 6A applications consult factory
<b>RJ45 Orientation</b>	<b>1,2,3 or 4</b>
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F11</b> = Aluminum/Electroless Nickel

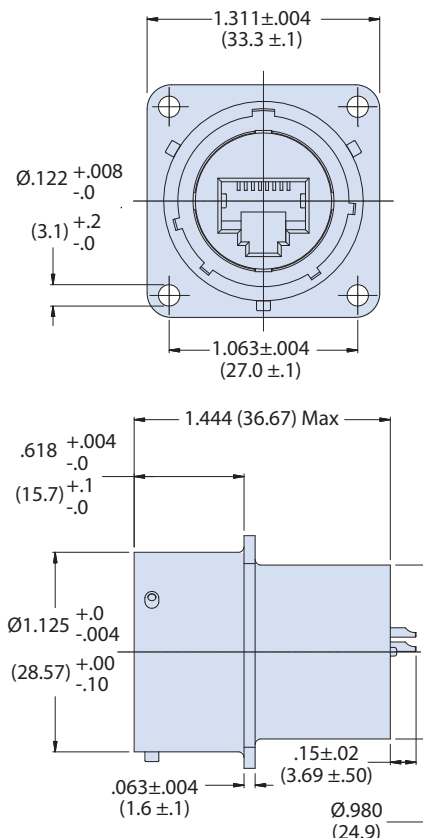
### RJ45 Receptacle, Orientation Options



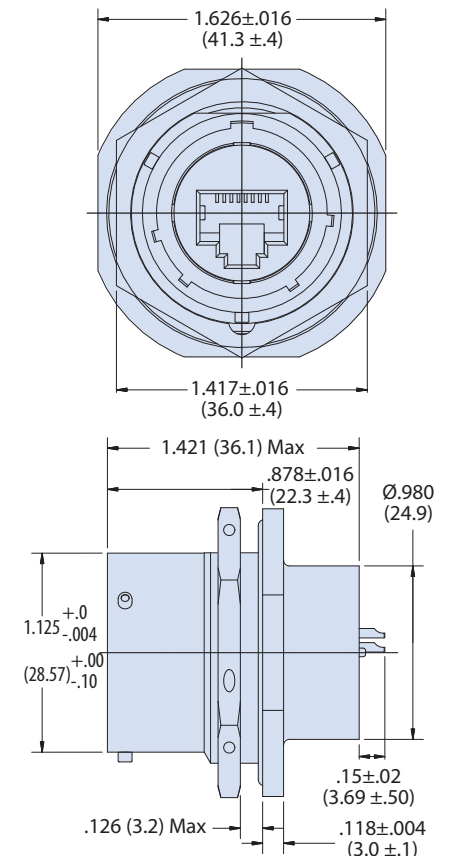
### Solder cup layout (Code 1 Orientation Shown)



### 02 - FRONT PANEL MOUNT SQUARE FLANGE RECEPTACLE



### 07 - REAR PANEL MOUNTING JAM NUT RECEPTACLE



### NOTES

1. See Section A for recommended panel cut out dimensions and solder cup layout



RJ45 CAT 5E ETHERNET

# Series IPT (26482 Type) Bayonet Coupler



## IPT330 Feedthrough Receptacle with Jack-to-Jack RJ45

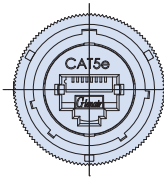


How to Order						
Sample Part Number	IPT330	02PP	18	5E	1	F7
Basic Number	IPT330					
Connector Style <sup>1</sup>	02PP = Front Panel Mount Square Flange receptacle					
Shell Size	18					
RJ45 Category <sup>2</sup>	5E = Cat 5E For Cat 6A applications consult factory					
RJ45 Orientation	1,2,3 or 4					
Material/Finish	Omit for Aluminum/Cadmium, Olive Drab (G3) F6 = Aluminum/Black Polymer Electrocoat F7 = Aluminum/Conductive Black Zinc Nickel F11 = Aluminum/Electroless Nickel					

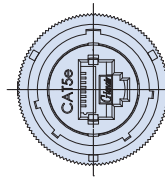
### NOTES

1. See Section A for recommended panel cut out dimensions
2. Feedthrough is jack/jack layout

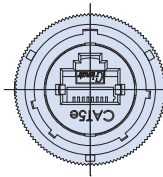
### RJ45 Orientation, Receptacle Options



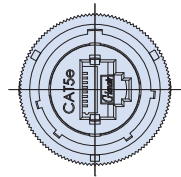
Code 1



Code 2

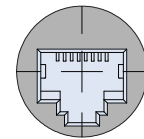
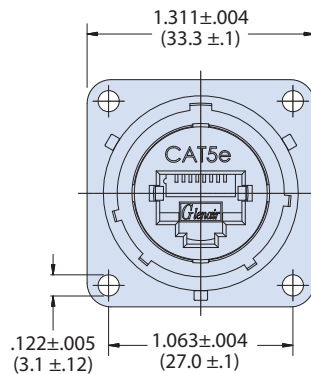
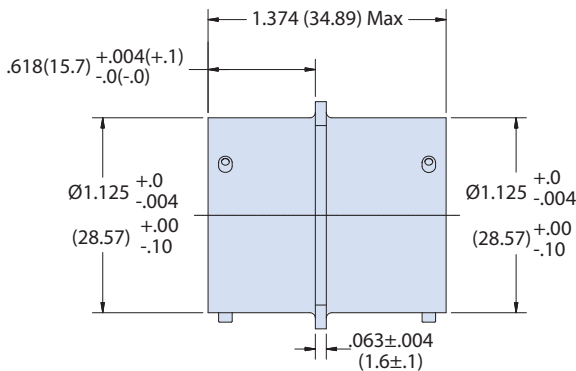


Code 3



Code 4

### 02 - FRONT PANEL SQUARE FLANGE MOUNT RECEPTACLE



Rear Connector View with RJ45 Jack

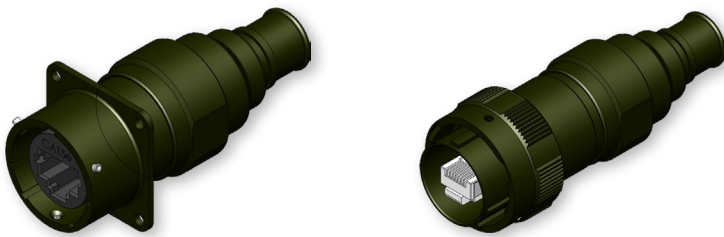


# RJ45 CAT 5E ETHERNET Series IPT (26482 Type) Bayonet Coupler

## IPT300H Connector and Backshell with Banding Porch and Boot Groove



How to Order	
Sample Part Number	IPT300H 00 G 18 5E 1 ZL F7
Basic Number	IPT300H
Connector Style <sup>1</sup>	00 = Front Panel Mount Square Flange Receptacle 01 = In-Line Receptacle 070 = Rear Panel Mount Jam Nut Receptacle 06 = Straight Plug
Insert-to-Shell Grounding	G = Insert grounded to shell; available for receptacle only and for use with shielded cable Omit = for none
Shell Size	18
RJ45 Category	5E = Cat 5E (For Cat 6A applications consult factory)
RJ45 Orientation	1,2,3 or 4
Backshell	ZL = Backshell with Banding Porch and Boot Groove
Material/Finish	Omit for Aluminum/Cadmium, Olive Drab (G3) F7 = Aluminum/Conductive Black Zinc Nickel F6 = Aluminum/Black Polymer Electrocoat F11 = Aluminum/Electroless Nickel



### HEAT SHRINK BOOT

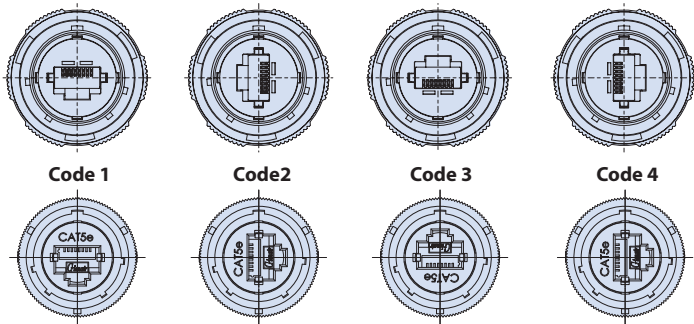


Glenair P/N : 770-004S903W2

#### Must be ordered separately

Type 9 flexible polyolefin short profile boots have an operating temperature range of -40°C to 100°C and provide very good resistance to fuels, oils and solvents. These boots fit most standard boot adapters for circular connectors and are specifically designed for low temperature rated CAT5e and USB cables.

### RJ45 Orientation Options



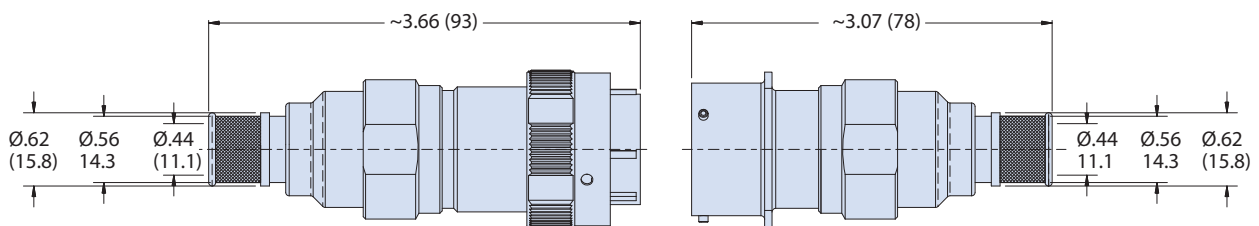
Plug

Receptacle

### NOTES

1. See Section A for recommended panel cut out dimensions

### CONNECTOR AND BACKSHELL WITH INTEGRAL BANDING PORCH AND BOOT GROOVE





RJ45 CAT 5E ETHERNET

# Series IPT (26482 Type) Bayonet Coupler

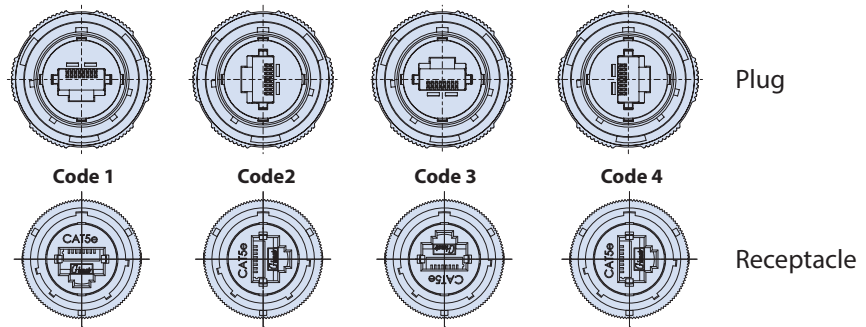


## IPT300H Connector and Backshell with Cable Shield Terminated Pigtail and Fitted Shrink Boot

How to Order	
<b>Sample Part Number</b>	<b>IPT300H 00 G 18 5E 1 T ZL 1 F7</b>
<b>Basic Number</b>	<b>IPT300H</b>
<b>Connector Style<sup>1</sup></b>	<b>00</b> = Front Panel Mount Square Flange Receptacle with Accessory Threads <b>01</b> = In-Line Receptacle <b>070</b> = Rear Panel Mount Jam Nut Receptacle with Accessory Threads <b>06</b> = Straight Plug
<b>Insert-to-Shell Grounding</b>	<b>G</b> = Insert grounded to shell; available for receptacle only and for use with shielded cable <b>Omit</b> = for none
<b>Shell Size</b>	<b>18</b>
<b>RJ45 Category</b>	<b>5E</b> = Cat 5E For Cat 6A applications consult factory
<b>RJ45 Orientation</b>	<b>1,2,3</b> or <b>4</b>
<b>Shrink Boot</b>	<b>T</b> = Shrink Boot <b>Omit</b> for none
<b>Backshell</b>	<b>ZL</b> = Backshell with Banding Porch and Boot Groove
<b>Cable Length</b>	<b>.5</b> meter; order in .5 meter increments (approximately 20 inches)
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F11</b> = Aluminum/Electroless Nickel



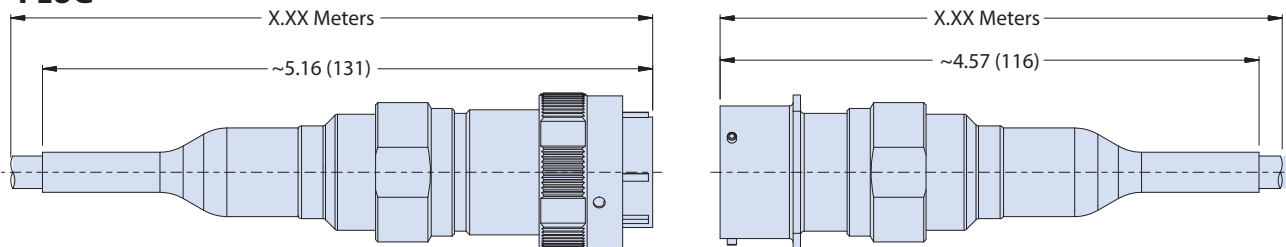
### RJ45 Orientation Options



### NOTES

1. See Section A recommended panel cut out dimensions

### 06 - PLUG



Cable to be ordered in 0.5 meter increments

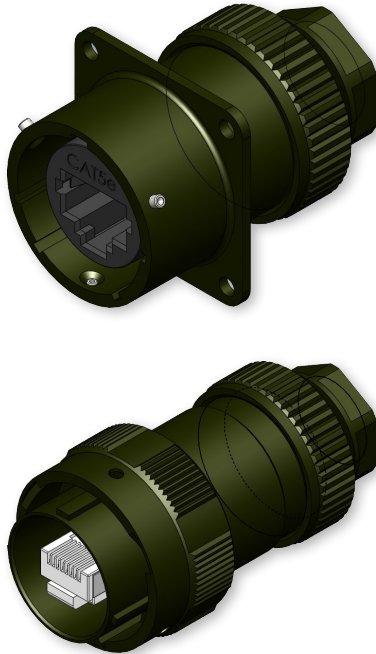




# RJ45 CAT 5E ETHERNET Series IPT (26482 Type) Bayonet Coupler



## IPT300H Connector and Backshell with Internal Metric Thread or PG9 Thread

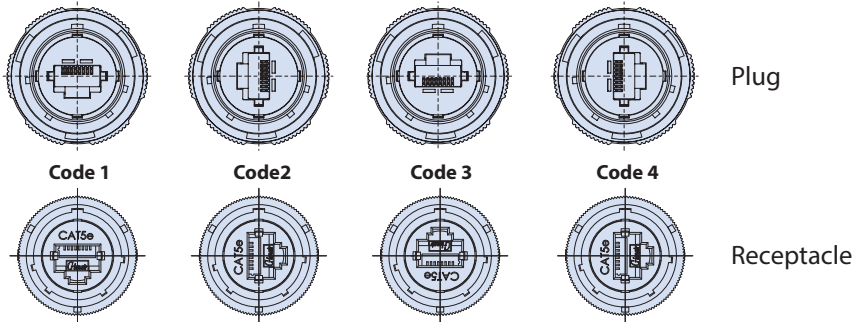


		How to Order							
Sample Part Number		<b>IPT300H</b>	<b>00</b>	<b>G</b>	<b>18</b>	<b>5E</b>	<b>1</b>	<b>M</b>	<b>F7</b>
Basic Number	<b>IPT300H</b>								
Connector Style <sup>1</sup>	<b>00</b> = Front Panel Mount Square Flange Receptacle with Accessory Threads <b>01</b> = In-Line Receptacle <b>070</b> = Rear Panel Mount Jam Nut Receptacle with Accessory Threads <b>06</b> = Straight Plug								
Insert-to-Shell Grounding	<b>G</b> = Insert grounded to shell; available for receptacle only and for use with shielded cable <b>Omit</b> = for none								
Shell Size	<b>18</b>								
RJ45 Category	<b>5E</b> = Cat 5E For Cat 6A applications consult factory								
RJ45 Orientation	<b>1,2,3</b> or <b>4</b>								
Backshell	<b>M</b> = M16 x 1.5 Internal Thread <b>PG9</b> = PG9 Internal Thread								
Material/Finish	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F11</b> = Aluminum/Electroless Nickel								

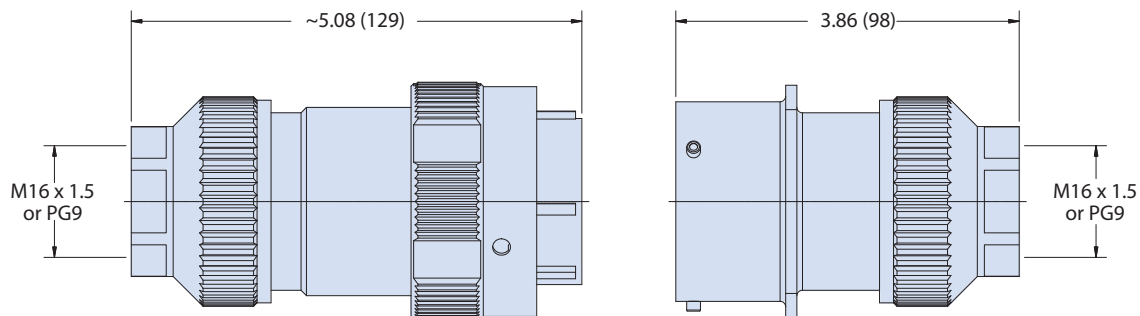
### NOTES

- See Section A for recommended panel cut out dimensions

### RJ45 Orientation Options



### CONNECTOR AND BACKSHELL WITH M16 X 1.5 OR PG9 INTERNAL THREAD





# RJ45 CAT 5E ETHERNET Series IPT (26482 Type) Bayonet Coupler

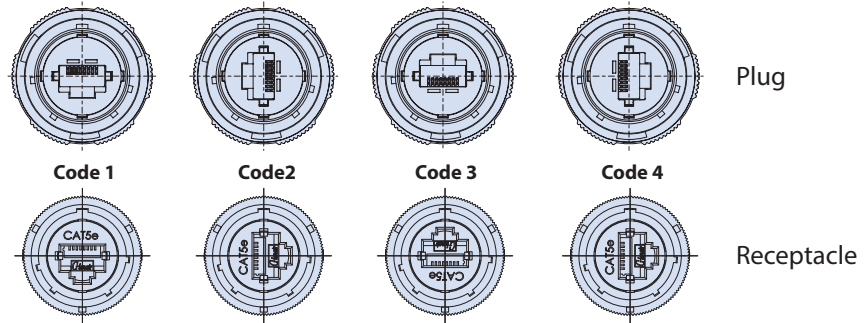


## IPT300H Connector and Backshell with Cable Gland and Optional Pigtail



How to Order	
<b>Sample Part Number</b>	<b>IPT300H 00 G 18 5E 1 M 0.5 F7</b>
<b>Basic Number</b>	<b>IPT300H</b>
<b>Connector Style<sup>1</sup></b>	<b>00</b> = Front Panel Mount Square Flange Receptacle with Accessory Threads <b>01</b> = In-Line Receptacle <b>070</b> = Rear Panel Mounting Jam Nut Receptacle <b>06</b> = Straight Plug
<b>Insert-to-Shell Grounding</b>	<b>G</b> = Insert grounded to shell; available for receptacle only; for use with shielded cable <b>Omit</b> = for none
<b>Shell Size</b>	<b>18</b>
<b>RJ45 Category</b>	<b>5E</b> = Cat 5E For Cat 6A applications consult factory
<b>RJ45 Orientation</b>	<b>1, 2, 3 or 4</b>
<b>Metallic Cable Gland</b>	<b>M1, M2, MS1, MS2</b> (see metallic cable gland table)
<b>Cable Length</b>	<b>0.5</b> = 0.5 meter increments; I.E. 1.5 = 1.5 meters
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>F11</b> = Aluminum/Electroless Nickel

### RJ45 Orientation Options



Metallic Cable Gland		
Type	Cable Range	Shield
<b>M1</b>	.236 - .315 (6 - 8 mm)	No
<b>M2</b>	.315 - .394 (8 - 10)	No
<b>MS1</b>	.236 - .315 (6 - 8 mm)	Yes
<b>MS2</b>	.315 - .394 (8 - 10)	Yes

### NOTES

1. See Section A for recommended panel cut out dimensions

F

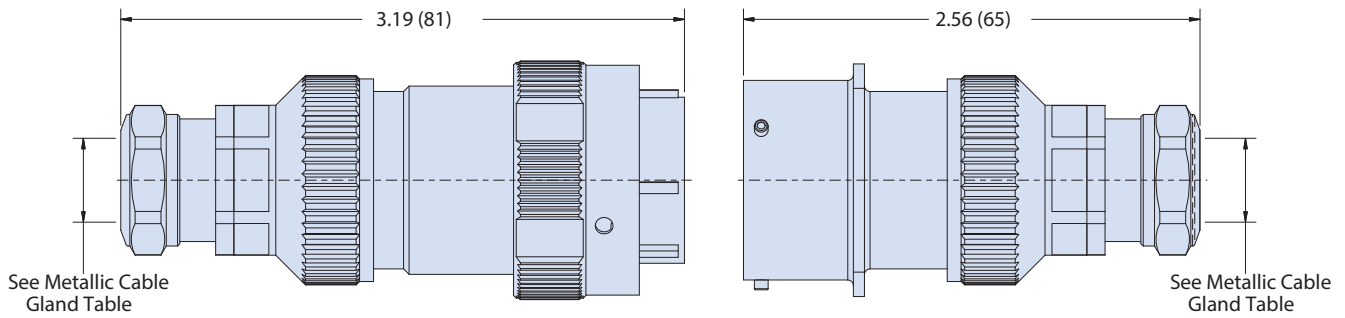


# RJ45 CAT 5E ETHERNET Series IPT (26482 Type) Bayonet Coupler

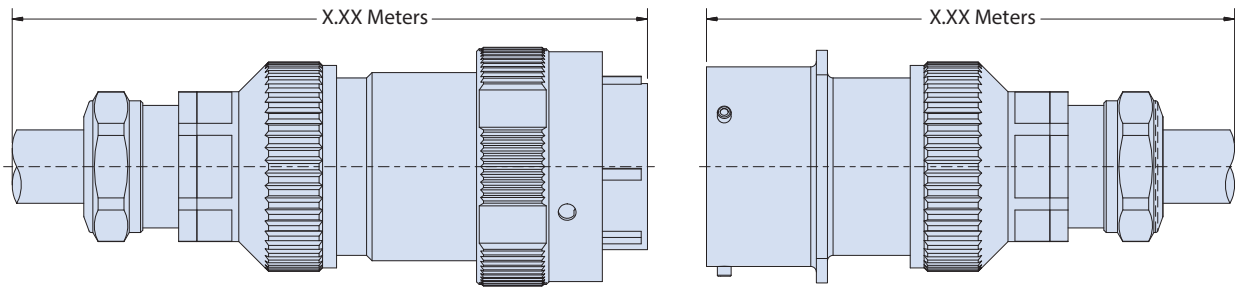


## IPT300H Connector and Backshell with Cable Gland and Optional Pigtail

### PLUG AND RECEPTACLE WITHOUT PIGTAIL



### PLUG AND RECEPTACLE WITH PIGTAIL



Cable to be ordered in 0.5 meter increments



**SERIES IPT  
FIELD-READY  
USB 2.0**

# **SUPERSEAL™**

Rugged environmental Series IPT bayonet connectors with IP67 sealing, robust shielding, and a complete range of wire, cable, and circuit board terminations.



## **Series IPT SuperSeal™ Advantages**

- 26482 Type bayonet connectors for mil-aero applications
- Superior sealing—IP67 open face and IP68 mated — for complete system protection against water, sand and dust
- Highly durable USB design, including enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance
- Crimp, solder-cup, PC-tail, and wire termination options
- USB 2.0 plug and receptacle versions
- Available backshells provide strain-relief and environmental protection



Glenair, Inc.  
1211 Air Way  
Glendale, CA 91201-2497  
818-247-6000  
sales@glenair.com  
www.glenair.com



USB 2.0 TYPE A  
Series IPT (26482 Type) Bayonet Coupler  
Product Selection Guide



**IPT340**

Page G-2

SuperSeal™ Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle) Interface.



**IPT342**

Page G-4

SuperSeal™ Receptacle with USB Female Interface to PC Tail Termination.



**IPT343**

Page G-6

SuperSeal™ Receptacle with USB Female Interface to Solder Cup Termination.



**IPT345**

Page G-8

SuperSeal™ Connectors with Accessory Threads and USB Male (Plug) or Female (Receptacle) Interface to Crimp Removable Contacts.



**IPT370**

Page G-10

SuperSeal™ Feedthrough Receptacle with USB Female-to-Female Interface.



**IPT340H**

Page G-11

SuperSeal™ USB Connector and Backshell with Accessory Options.



USB 2.0 TYPE A

# Series IPT (26482 Type) Bayonet Coupler



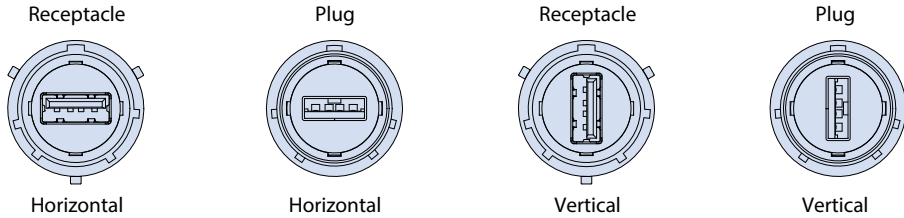
IPT340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

G

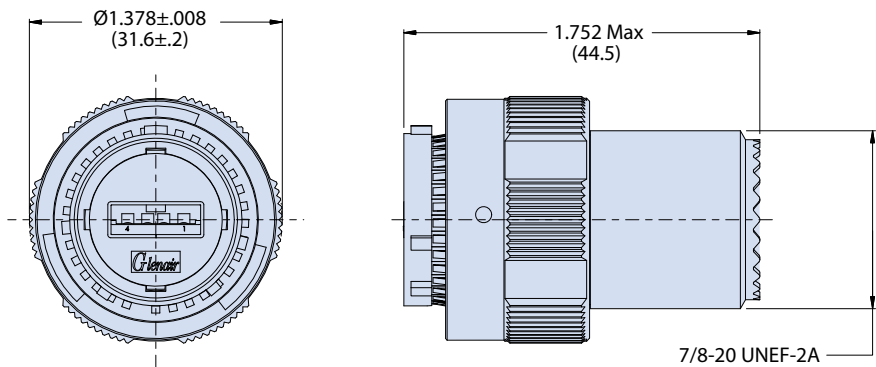


How to Order							
Sample Part Number	IPT340 00 16 2 A H F6						
Basic Number	IPT340						
Connector Style <sup>1</sup>	06 = Plug 01 = In-Line Receptacle 070 = Rear Panel Mount Jam Nut Receptacle 00 = Wall Mount Receptacle						
Shell Size	16						
USB Performance	2 = 2.0						
USB Type	A = Type A						
Orientation Option	H = Horizontal    V = Vertical						
Material/Finish	Omit for Aluminum/Cadmium, Olive Drab F6 = Black Polymer Electrocoat F7 = Conductive Black Zinc Nickel F11 = Electroless Nickel						

### USB Orientation Options



### 06 - PLUG WITH ACCESSORY THREADS



### NOTES

1. See Section A panel cutout dimensions



USB 2.0 TYPE A

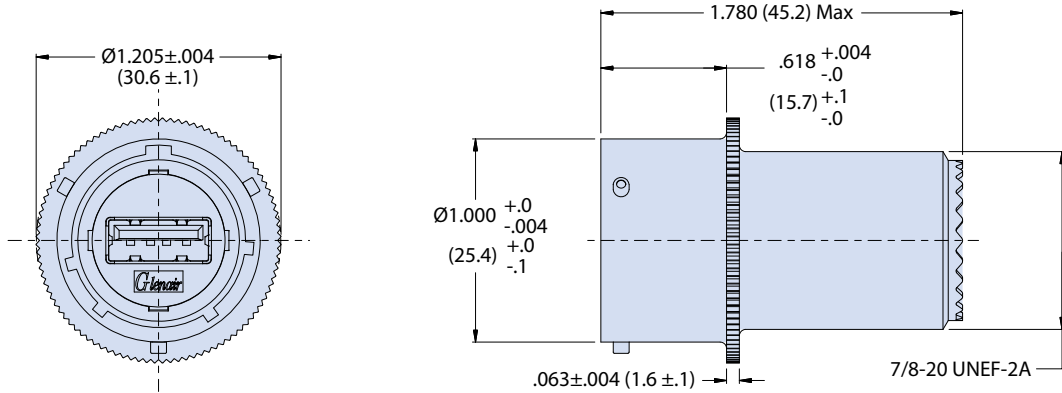
# Series IPT (26482 Type) Bayonet Coupler



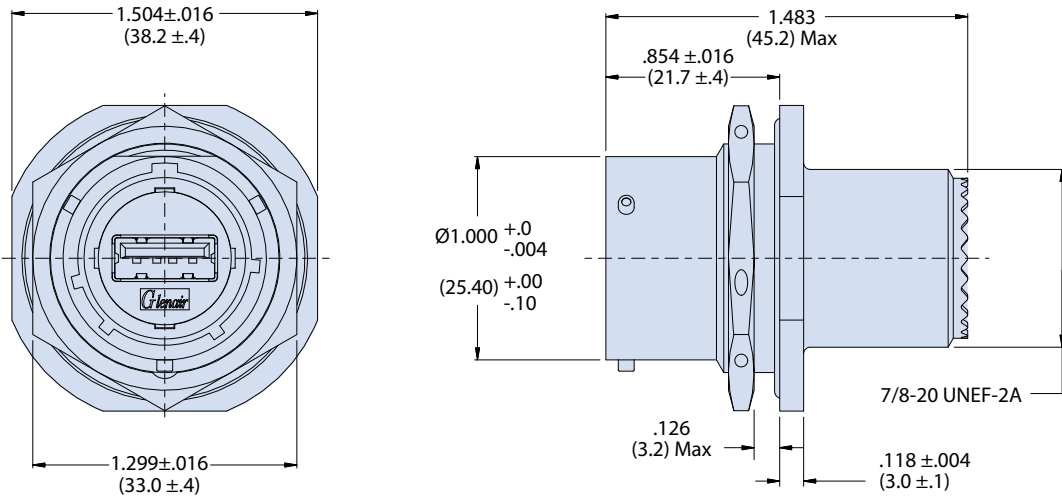
IPT340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)



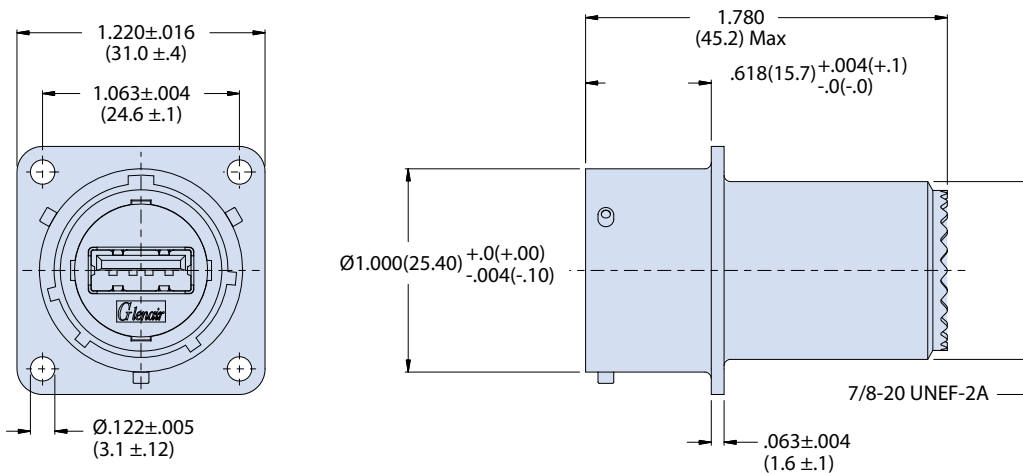
## 01 - INLINE RECEPTACLE WITH ACCESSORY THREADS



## 070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS



## 00 - WALL MOUNT RECEPTACLE WITH ACCESSORY THREADS





USB 2.0 TYPE A

# Series IPT (26482 Type) Bayonet Coupler



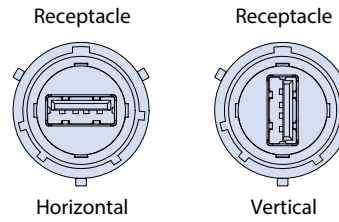
## IPT342 Receptacle with USB Female Interface to PC Tail Termination

G



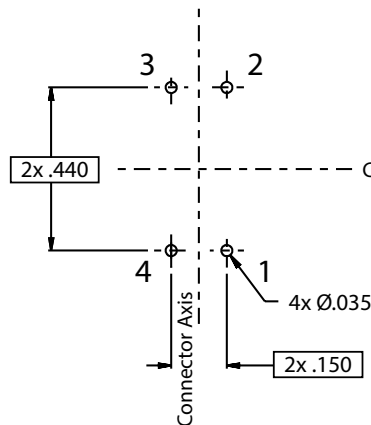
How to Order							
<b>Sample Part Number</b>	<b>IPT342</b>	<b>02</b>	<b>16</b>	<b>2</b>	<b>A</b>	<b>H</b>	<b>F6</b>
<b>Basic Number</b>	<b>IPT342</b>						
<b>Connector Style<sup>1</sup></b>	<b>02</b> = Wall Mount Receptacle <b>07</b> = Rear Panel Mount Jam Nut Receptacle						
<b>Shell Size</b>	<b>16</b>						
<b>USB Performance</b>	<b>2</b> = 2.0						
<b>USB Type</b>	<b>A</b> = Type A						
<b>Orientation Option</b>	<b>H</b> = Horizontal <b>V</b> = Vertical						
<b>Material/Finish</b>	<b>Omit</b> for Cadmium/Olive Drab <b>F6</b> = Black Polymer Electrocoat <b>F7</b> = Conductive Black Zinc Nickel <b>F11</b> = Electroless Nickel						

### USB Orientation Options



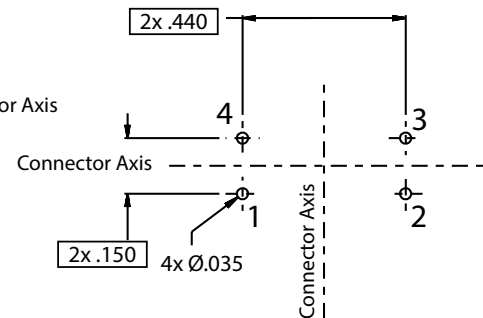
### RECOMMENDED PCB LAYOUT

Receptacle USB 2.0 / Type A  
(Horizontal Orientation)



Recommended  
(Solder Side)

Receptacle USB 2.0 / Type A  
(Vertical Orientation)



Recommended  
(Solder Side)

### NOTES

1. See Section A for panel cutout dimensions

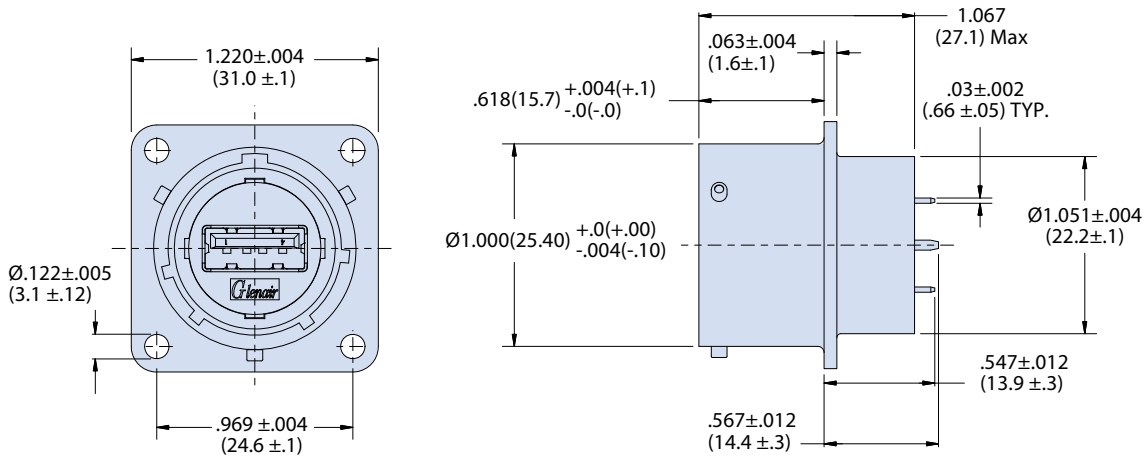




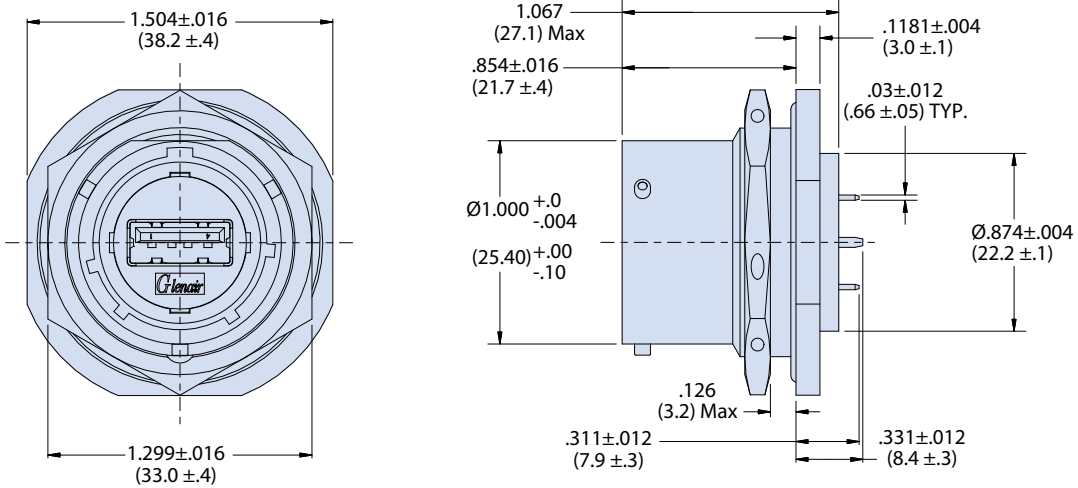
USB 2.0 TYPE A  
**Series IPT (26482 Type) Bayonet Coupler**  
 IPT342 Receptacle with  
 USB Female Interface to PC Tail Termination



**02 - WALL MOUNT RECEPTACLE**



**07 - REAR PANEL MOUNT JAM NUT RECEPTACLE**





USB 2.0 TYPE A

# Series IPT (26482 Type) Bayonet Coupler



IPT343 Receptacle with USB

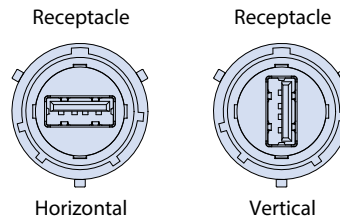
Female Interface to Solder Cup Termination

G



How to Order							
<b>Sample Part Number</b>	<b>IPT343</b>	<b>02</b>	<b>16</b>	<b>2</b>	<b>A</b>	<b>H</b>	<b>F6</b>
<b>Basic Number</b>	<b>IPT343</b>						
<b>Connector Style<sup>1</sup></b>	<b>02</b> = Wall Mount Receptacle <b>07</b> = Rear Panel Mount Jam Nut Receptacle						
<b>Shell Size</b>	<b>16</b>						
<b>USB Performance</b>	<b>2</b> = 2.0						
<b>USB Rear Jack Type</b>	<b>A</b> = Type A						
<b>Orientation Option</b>	<b>H</b> = Horizontal <b>V</b> = Vertical						
<b>Material/Finish</b>	<b>Omit</b> for Cadmium/Olive Drab <b>F6</b> = Black Polymer Electrocoat <b>F7</b> = Conductive Black Zinc Nickel <b>F11</b> = Electroless Nickel						

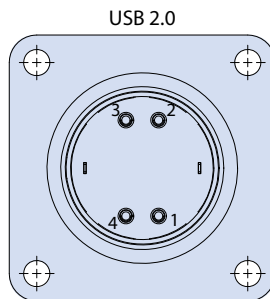
### USB Orientation Options



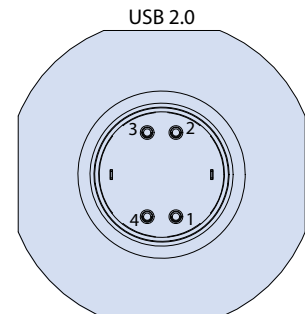
## SOLDER CUP LAYOUTS FOR USB 2.0

### Horizontal USB layout

#### -02 Style Solder Cup Layouts



#### -07 Style Solder Cup Layouts

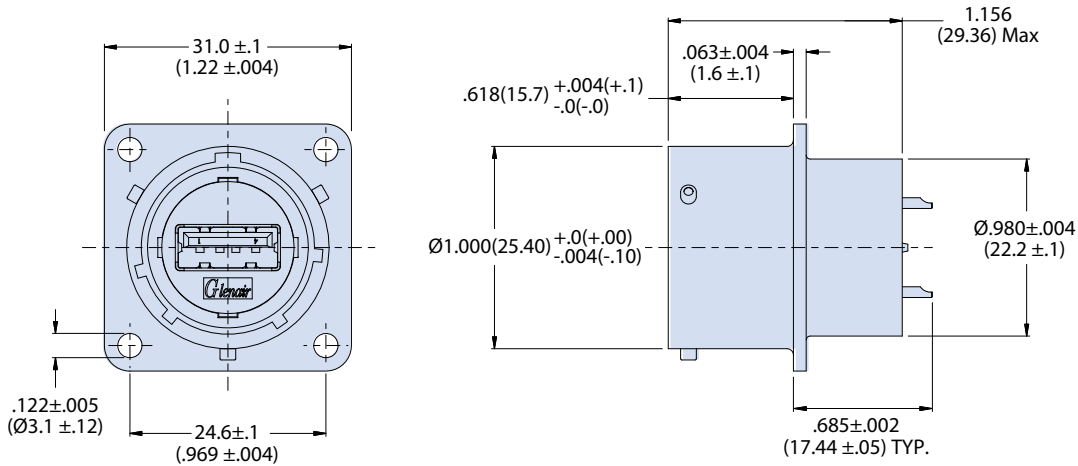




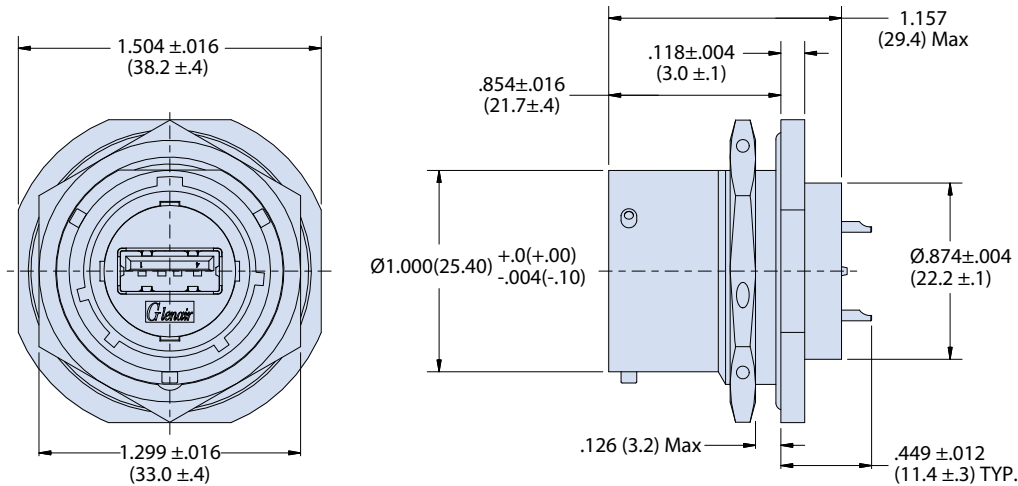
USB 2.0 TYPE A  
**Series IPT (26482 Type) Bayonet Coupler**  
 IPT343 Receptacle with USB  
 Female Interface to Solder Cup Termination



**02 - WALL MOUNT RECEPTACLE**



**07 - REAR PANEL MOUNT JAM NUT RECEPTACLE**



**NOTES**

1. See Section A panel cutout dimensions



USB 2.0 TYPE A

# Series IPT (26482 Type) Bayonet Coupler



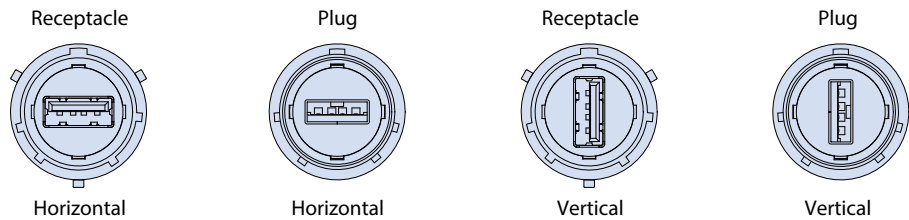
IPT345 Connectors with USB Male (Plug) or Female (Receptacle) Interface to Crimp Removable Contacts

G



How to Order	
<b>Sample Part Number</b>	<b>IPT345 00 16 2 A H F6</b>
<b>Basic Number</b>	<b>IPT345</b>
<b>Connector Style</b>	00 = Wall Mount Receptacle 070 = Rear Panel Mount Jam Nut Receptacle 06 = Straight Plug
<b>Shell Size</b>	16
<b>USB Performance</b>	2 = 2.0
<b>USB Rear Jack Type</b>	A = Type A
<b>Orientation Option</b>	H = Horizontal      V = Vertical
<b>Material/Finish</b>	Omit for Cadmium/Olive Drab      F6 = Black Polymer Electrocoat F7 = Conductive Black Zinc Nickel      F11 = Electroless Nickel

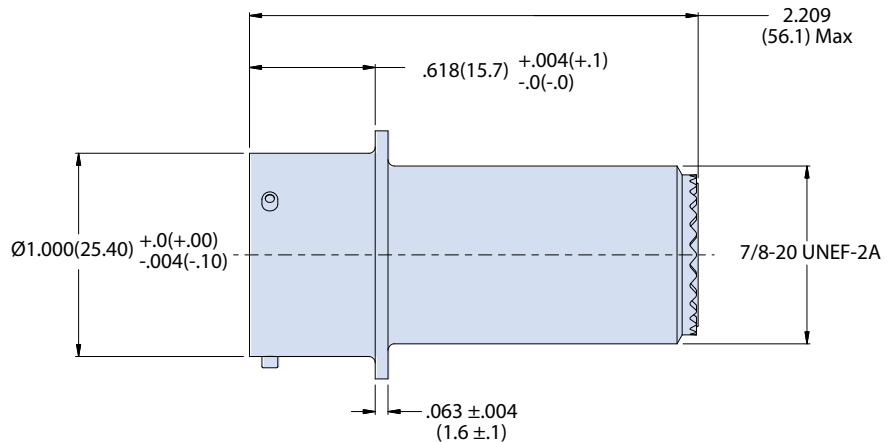
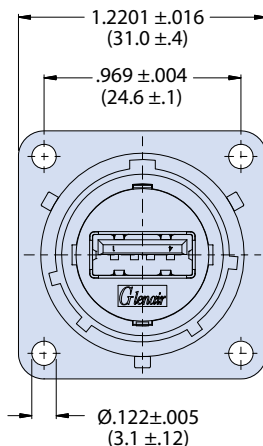
### USB Orientation Options



### NOTES

1. See Section A for panel cutout dimensions

### 00 - WALL MOUNT RECEPTACLE WITH ACCESSORY THREADS





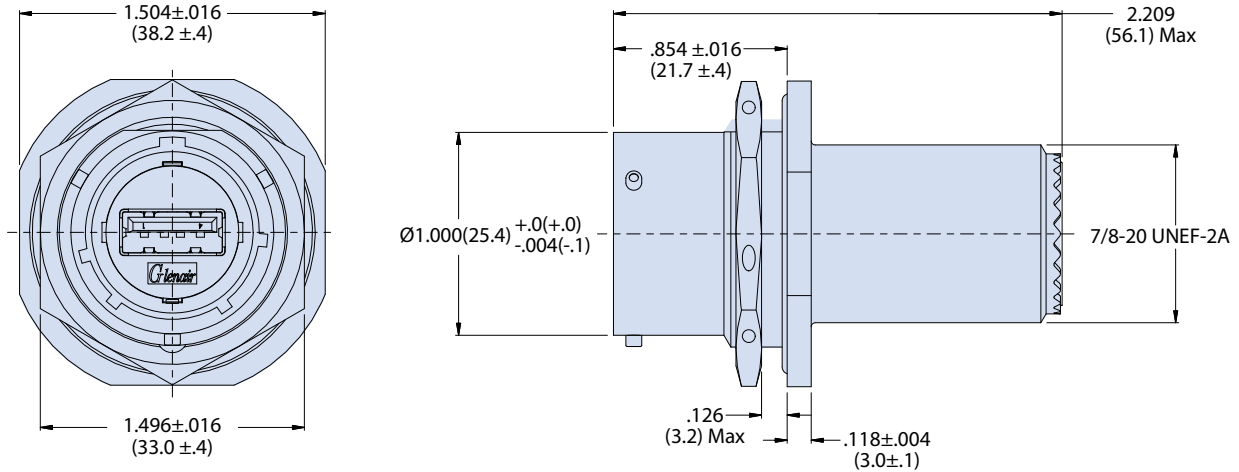
USB 2.0 TYPE A

# Series IPT (26482 Type) Bayonet Coupler

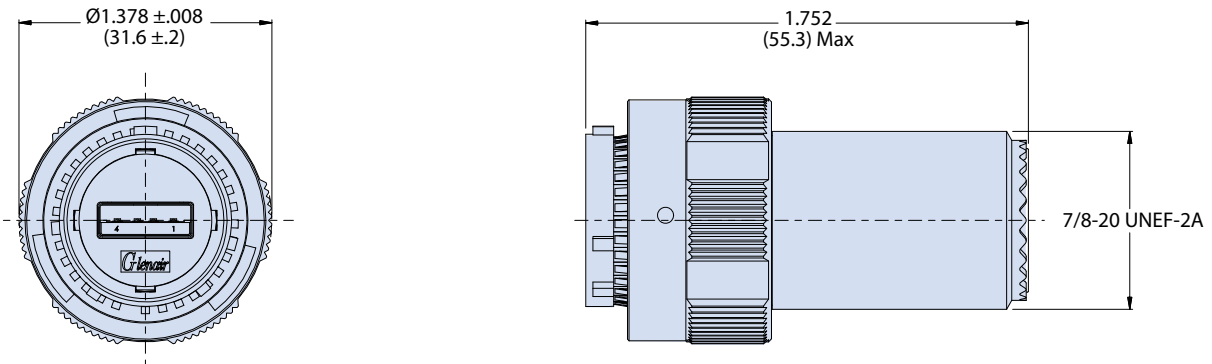


IPT345 Connectors with USB Male (Plug) or Female (Receptacle) Interface to Crimp Removable Contacts

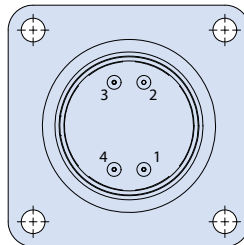
## 070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS



## 06 - PLUG WITH ACCESSORY THREADS



### Crimp Contact Layout (Horizontal Orientation Shown)





USB 2.0 TYPE A

# Series IPT (26482 Type) Bayonet Coupler



## IPT370 Feedthrough Receptacle with USB Female-to-Female Interface

G

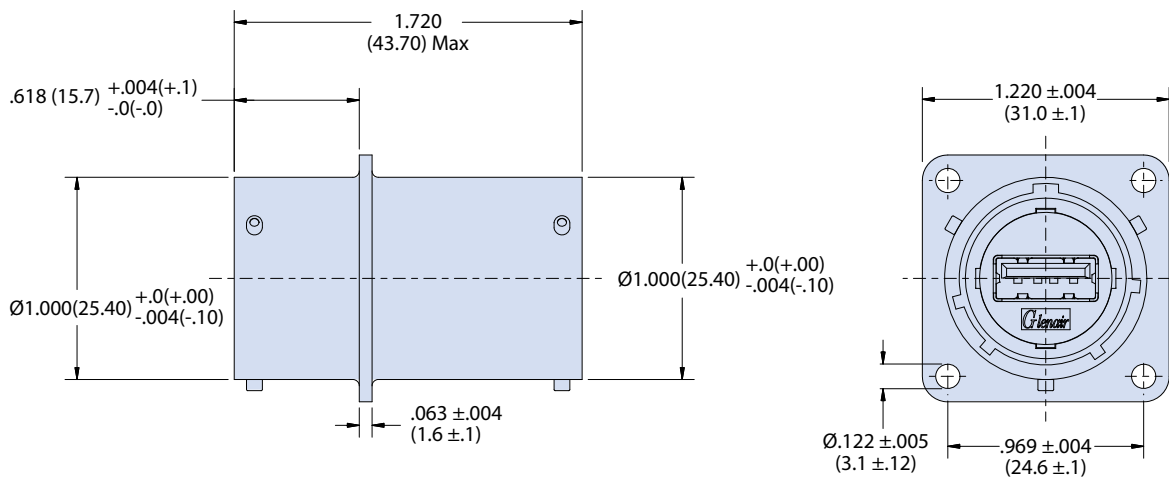
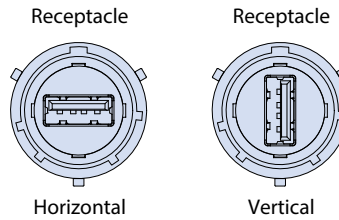


How to Order	
<b>Sample Part Number</b>	<b>IPT370 02PP 16 2 A A H F6</b>
<b>Basic Number</b>	<b>IPT370</b>
<b>Connector Style<sup>1</sup></b>	<b>02PP</b> = Rear Panel Mounting Receptacle Bulkhead Feed Through
<b>Shell Size</b>	<b>16</b>
<b>USB Performance</b>	<b>2</b> = 2.0
<b>USB Rear Jack Type</b>	<b>A</b> = Type A
<b>USB Front Jack Type</b>	<b>A</b> = Type A
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical
<b>Material/Finish</b>	Omit for Cadmium/Olive Drab <b>F6</b> = Black Polymer Electrocoat <b>F7</b> = Conductive Black Zinc Nickel <b>F11</b> = Electroless Nickel

### NOTES

- See Section A for panel cutout dimensions and complete finish options

### USB Orientation Options



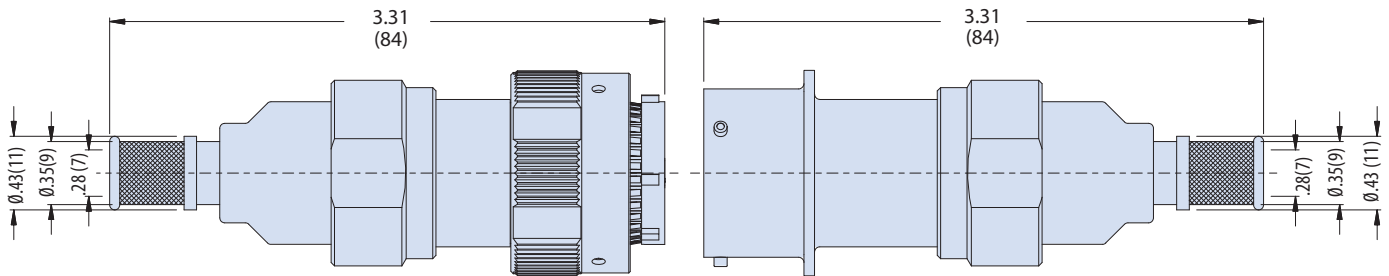


# USB 2.0 TYPE A Series IPT (26482 Type) Bayonet Coupler

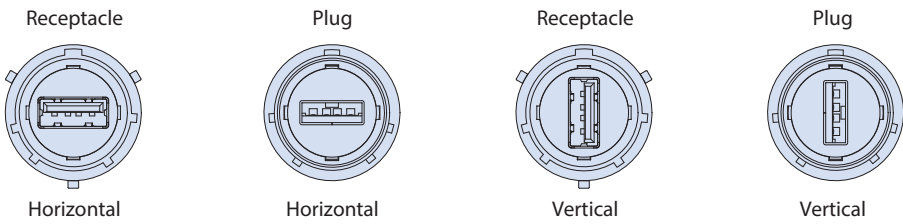


## IPT340H Connector and Backshell with Banding Porch and Shrink Boot Groove

How to Order	
<b>Sample Part Number</b>	<b>IPT340H 00 16 2 A A H ZL F6</b>
<b>Basic Number</b>	<b>IPT340H</b>
<b>Connector Style<sup>1</sup></b>	<b>00</b> = Wall Mount Receptacle with Accessory Threads <b>01</b> = InLine Receptacle with Accessory Threads <b>070</b> = Rear Panel Mount Jam Nut Receptacle with Accessory Threads <b>06</b> = Straight Plug Connector with Accessory Threads
<b>Shell Size</b>	<b>16</b>
<b>USB Performance</b>	<b>2</b> = 2.0
<b>USB Rear Jack Type</b>	<b>A</b> = Type A
<b>USB Front Jack Type</b>	<b>A</b> = Type A
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical
<b>Backshell</b>	<b>ZL</b> = With banding platform for direct attachment of cable shield and shrink boot groove
<b>Material/Finish</b>	<b>Omit</b> for Cadmium/Olive Drab <b>F7</b> = Conductive Black Zinc Nickel <b>F6</b> = Black Polymer Electrocoat <b>F11</b> = Electroless Nickel



### USB Orientation Options



### HEAT SHRINK BOOT



### NOTES

1. See Section A for panel cutout dimensions

Glenair P/N : **770-004S903W2**

#### Must be ordered separately

Type 9 flexible polyolefin short profile boots have an operating temperature range of -40°C to 100°C and provide very good resistance to fuels, oils and solvents. These boots fit most standard boot adapters for circular connectors and are specifically designed for low temperature rated CAT5e and USB cables.



USB 2.0 TYPE A

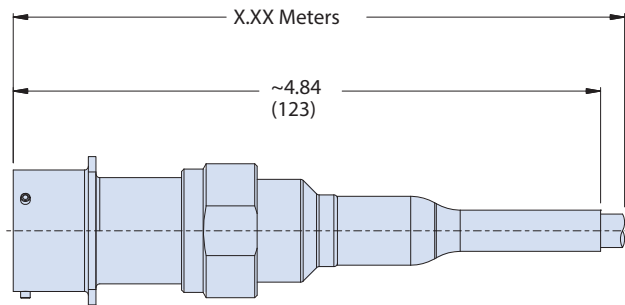
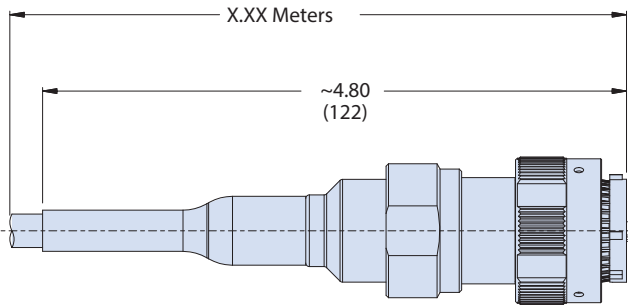
# Series IPT (26482 Type) Bayonet Coupler



## IPT340H Connector and Backshell with Pigtail

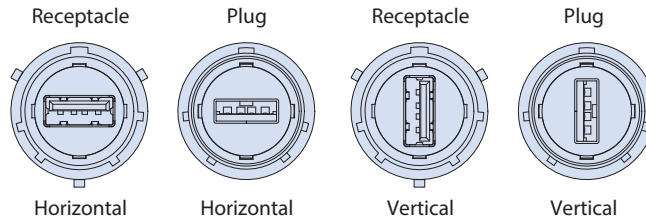
G

How to Order	
<b>Sample Part Number</b>	<b>IPT340H 00 16 2 A A H ZL 0.5 F6</b>
<b>Basic Number</b>	<b>IPT340H</b>
<b>Connector Style<sup>1</sup></b>	<b>00</b> = Wall Mount Receptacle <b>01</b> = InLine Receptacle <b>070</b> = Rear Panel Mounting Jam Nut Receptacle <b>06</b> = Straight Plug Connector
<b>Shell Size</b>	<b>16</b>
<b>USB Performance</b>	<b>2</b> = 2.0
<b>USB Rear Jack Type</b>	<b>A</b> = Type A
<b>USB Front Jack Type</b>	<b>A</b> = Type A
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical
<b>Backshell</b>	<b>ZL</b> = Backshell with banding platform for direct attachment of cable shield and shrink boot pre-installed
<b>Cable Length</b>	<b>0.5</b> = 0.5 inch pigtail (See High Data Rate Cable P/N 963-012)
<b>Material/Finish</b>	<b>Omit</b> for Cadmium/Olive Drab <b>F7</b> = Conductive Black Zinc Nickel <b>F6</b> = Black Polymer Electrocoat <b>F11</b> = Electroless Nickel



Plug and Receptacle with Pigtail

**USB Orientation Options**



**NOTES**

1. See Section A for panel cutout dimensions



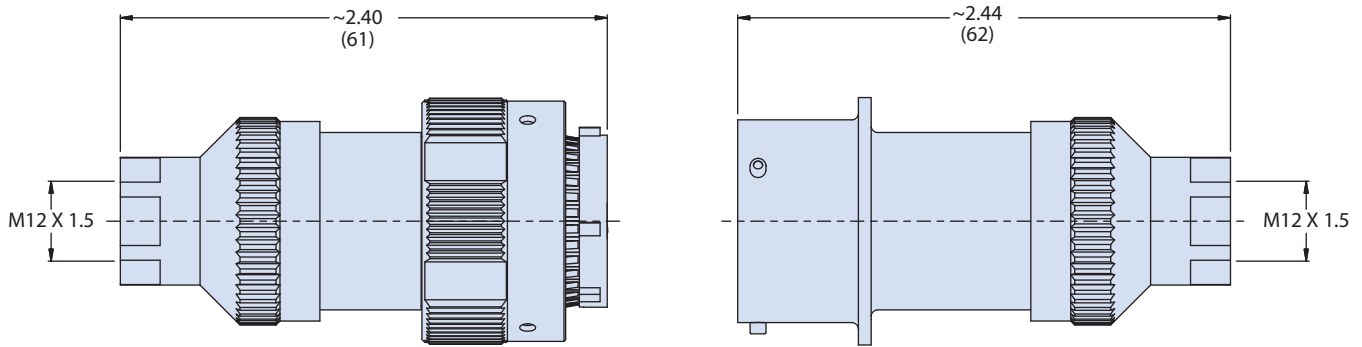


USB 2.0 TYPE A  
**Series IPT (26482 Type) Bayonet Coupler**  
 IPT340H Connector with  
 Internal Metric Thread Backshell



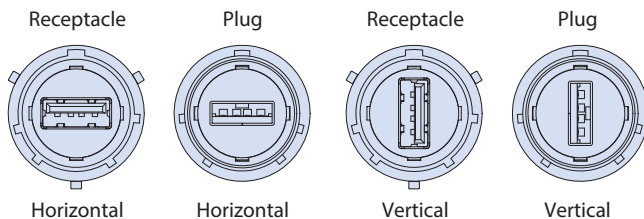
G

How to Order	
<b>Sample Part Number</b>	<b>IPT340H 00 16 2 A A H M F6</b>
<b>Basic Number</b>	<b>IPT340H</b>
<b>Connector Style<sup>1</sup></b>	<b>00</b> = Wall Mount Receptacle <b>01</b> = InLine Receptacle <b>070</b> = Rear Panel Mounting Jam Nut Receptacle <b>06</b> = Straight Plug Connector
<b>Shell Size</b>	<b>16</b>
<b>USB Performance</b>	<b>2</b> = 2.0
<b>USB Rear Jack Type</b>	<b>A</b> = Type A
<b>USB Front Jack Type</b>	<b>A</b> = Type A
<b>Orientation Option</b>	<b>H</b> = Horizontal <b>V</b> = Vertical
<b>Backshell</b>	<b>M</b> = Backshell with metric thread
<b>Material/Finish</b>	<b>Omit</b> for Cadmium/Olive Drab <b>F6</b> = Black Polymer Electrocoat <b>F7</b> = Conductive Black Zinc Nickel <b>F11</b> = Electroless Nickel



**Plug and Receptacle without Cable Gland**  
 (Other Backshell options are available, please consult the factory)

**USB Orientation Options**



**NOTES**

1. See Section A panel cutout dimensions



USB 2.0 TYPE A

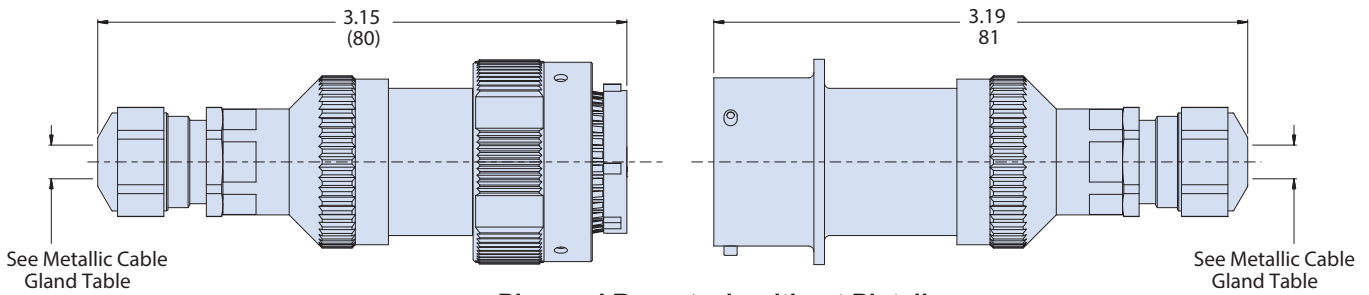
# Series IPT (26482 Type) Bayonet Coupler



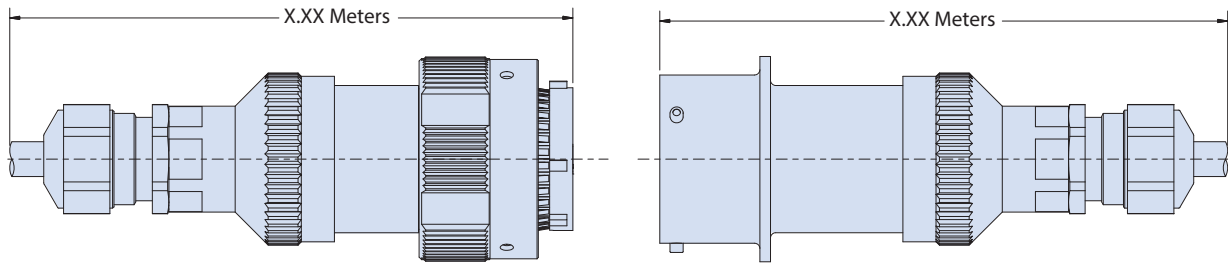
## IPT340H Connector and Backshell with Cable Gland, with or without Pigtails

G

How to Order	
<b>Sample Part Number</b>	<b>IPT340H 00 16 2 A A H MS1 0.5 F6</b>
<b>Basic Number</b>	<b>IPT340H</b>
<b>Connector Style<sup>1</sup></b>	<b>00</b> = Wall Mount Receptacle <b>01</b> = InLine Receptacle <b>070</b> = Rear Panel Mounting Jam Nut Receptacle <b>06</b> = Straight Plug Connector with Accessory Threads
<b>Shell Size</b>	<b>16</b>
<b>USB Performance</b>	<b>2</b> = 2.0
<b>USB Rear Jack Type</b>	<b>A</b> = Type A
<b>USB Front Jack Type</b>	<b>A</b> = Type A
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical
<b>Metallic Cable Gland</b>	<b>M1, M2, MS1, MS2</b> See Metallic Cable Gland Table
<b>Cable Length</b>	<b>0.5</b> = 0.50 inch pigtail <b>Omit</b> for None
<b>Material/Finish</b>	<b>Omit</b> for Aluminum/Cadmium, Olive Drab (G3) <b>F7</b> = Conductive Black Zinc Nickel <b>F6</b> = Black Polymer Electrocoat <b>F11</b> = Electroless Nickel

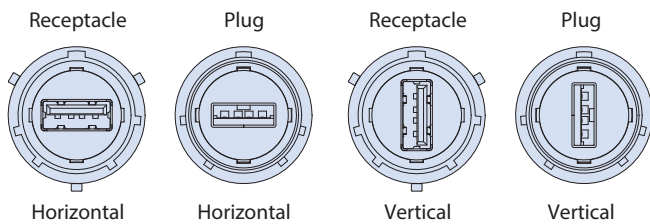


Plug and Receptacle without Pigtail



Plug and Receptacle with Pigtail

**USB Orientation Options**



Metallic Cable Gland		
Type	Cable Range	Shield
M1	.13 - .19 (3.5 - 5)	No
M2	.25 - .31 (6.5 - 8)	No
MS1	.17 - .23 (4.5 - 6)	Yes
MS2	.23 - .29 (6 - 7.5)	Yes

**NOTES**

1. See Section A for panel cutout dimensions



# RJ12, RJ45, AND USB 2.0 TYPE A SuperSeal™ 28840 Type Connectors

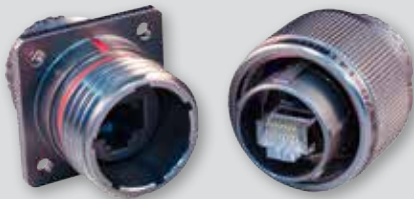
## Product Selection Guide



**900-320**

Page H-2

SuperSeal™ Coupler with Accessory Threads and RJ12 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle).



**900-300**

Page H-4

SuperSeal™ Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle).



**900-301**

Page H-6

SuperSeal™ Connector with Accessory Threads and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.



**900-340**

Page H-8

SuperSeal™ Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle).



**900-345**

Page H-10

SuperSeal™ Connector with Accessory Threads and USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts.





# RJ12 PHONE INTERFACE 28840 SuperSeal™



## 900-320 Coupler with Accessory Threads and RJ12 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)

How to Order							
<b>Part Number Example</b>	<b>900-320</b>	<b>NF</b>	<b>D0</b>	<b>-</b>	<b>17</b>	<b>1</b>	<b>1</b>
<b>Basic Number</b>	<b>900-320</b>						
<b>Material/Finish</b>	See Material and Finish Options Table						
<b>Connector Style</b>	<b>D0</b> = Receptacle, Wall Mount <b>05</b> = Receptacle, Inline <b>07</b> = Receptacle, Jam Nut <b>G6</b> = Plug						
<b>Shielding</b>	<b>-</b> = Inline Shielded RJ45 <b>G</b> = Inline Shielded and Grounded to Shell (See Note 2)						
<b>Shell Size</b>	<b>15</b> or <b>17</b>						
<b>Alternate Polarization</b>	<b>1, 2, 3, 4, 5, 6</b> See Section A for details (Per MIL-DTL-28840)						
<b>RJ12 Orientation Option</b>	<b>1, 2, 3, 4</b> (See below for options)						

### NOTES

1. Receptacle meets IP67 requirements in the unmated condition and plug meets IP68 requirements in the mated condition, consult factory for details.
2. "G" option only with receptacle.
3. Connector accessory features per M28840 connector designator G. Consult factory for accessory selection.

### SPECIFICATIONS

- RJ12 coupler maintains shield continuity
- Wiring: straight through
- RoHS compliant
- Electrical: current rating: 1.5 Amp
- D.W.V.: 1000 VDC (700 VAC)
- Operating temperature: -40°C to +120°C

Wall Mount & Inline Receptacle Dimensions						
Shell Size	A Thread	B Sq	C Bsc	D Thread	E	ØF
15	1.062-.1P-.2L-DS-2A	1.278 (32.46)	.968 (24.59)	1.000-20 UNEF 2A	1.080 (27.43)	1.275 (32.39)
		1.238 (31.45)			1.070 (27.18)	1.255 (31.88)
17	1.125-.1P-.2L-DS-2A	1.403 (35.64)	1.015 (25.78)	1.125-18 UNEF 2A	1.143 (29.03)	1.338 (33.99)
		1.363 (34.62)			1.133 (28.78)	1.318 (33.48)

Jam Nut Receptacle & Plug Dimensions					
Shell Size	ØG	H	J Flat	K Thread	ØL Max
15	1.681 (42.70)	1.587 (40.31)	1.153 (29.29)	1.1875-18 UNEF 2A	1.263 (32.08)
	1.661 (42.19)	1.567 (39.80)	1.144 (29.06)		
17	1.743 (44.27)	1.649 (41.88)	1.216 (30.89)	1.250-18 UNEF 2A	1.387 (35.23)
	1.723 (43.76)	1.629 (41.38)	1.207 (30.66)		

Material and Finish Options		
Code	Material	Finish Description
<b>NF</b>	Aluminum	Cadmium O. D. Over Electroless Nickel (500 hour Salt Spray)
<b>ZN</b>		Zinc Nickel, Olive Drab
<b>MT</b>		Nickel-PTFE, 1000 Hour Grey™
<b>Z1</b>	Stainless Steel	Passivate
<b>ZU</b>		Black Cadmium Over Nickel
<b>AB</b>	Marine Bronze	None (Clean Only)

Wiring Diagram*			
Pin	Modern Color Code (UTP)	Old Color Code	Destination
1	white/green	white	T3 (Tip 3)
2	white/orange	black	T2 (Tip 2)
3	blue/white	red	R1 (Ring 1)
4	white/blue	green	T1 (Tip 1)
5	orange/white	orange	R2 (Ring 2)
6	green/white	blue	R3 (Ring 3)

- Pair 1 = Primary dial tone or talk circuit on a single line
- Pair 2 = Secondary dial tone on a two line or data control circuit for an electronic key phone
- Pair 3 = Third dial tone on a three line or an accessory circuit for an electronic key phone

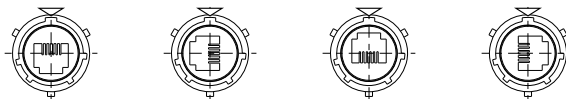
\*Wiring Diagram based on industry standard USOC-6

Recommended Panel Cutouts			
Shell Size	ØM	ØN	P Flat
15	1.124 (28.55)	1.203 (30.56)	1.165 (29.59)
		1.193 (30.30)	1.155 (29.34)
17	1.187 (30.15)	1.265 (32.13)	1.228 (31.19)
		1.255 (31.88)	1.218 (30.94)

### RJ12 JACK ORIENTATION OPTIONS

▽ = KEYWAY

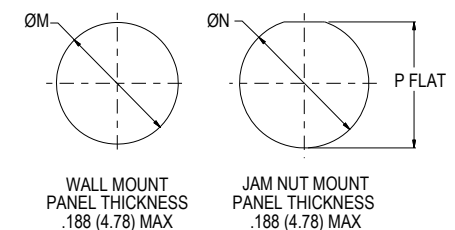
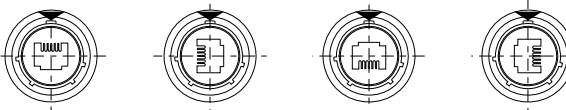
RJ12 JACK ORIENTATION OPTIONS



(Partial Front Views Shown)

▼ = KEY

RJ12 PLUG ORIENTATION OPTIONS



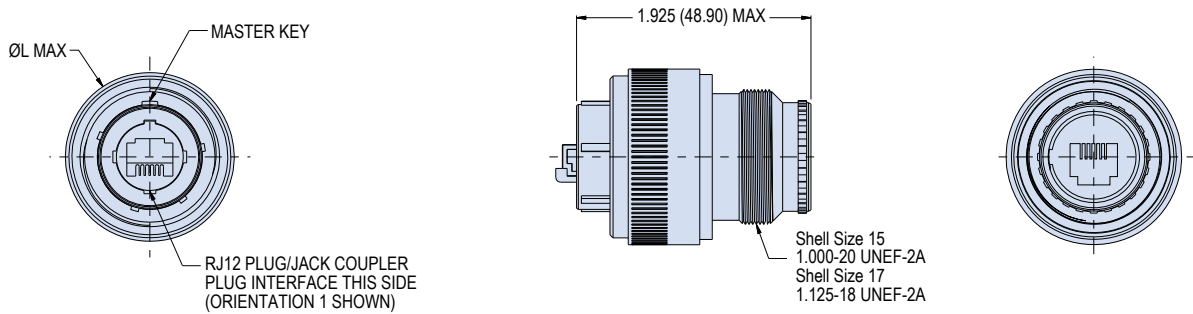


# RJ12 PHONE INTERFACE 28840 SuperSeal™

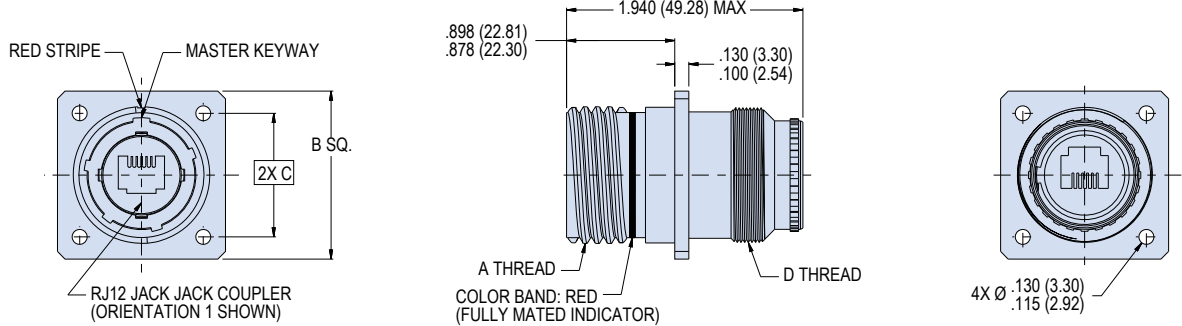


## 900-320 Coupler with Accessory Threads and RJ12 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)

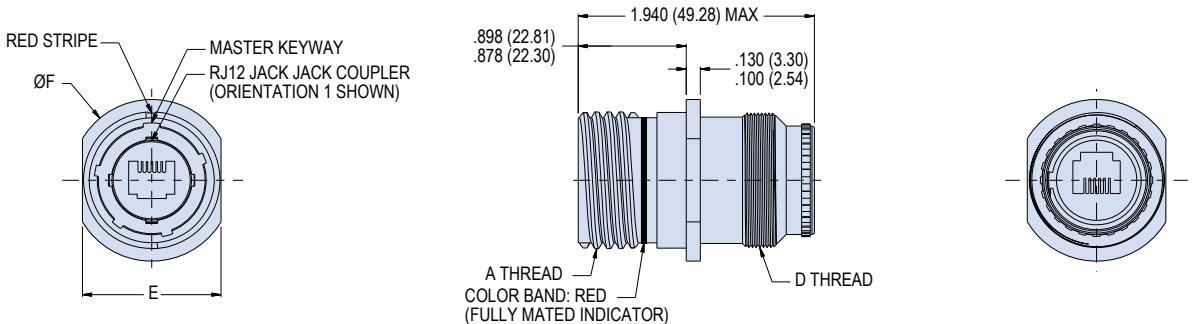
### G6 - PLUG (JAM NUT RECEPTACLE & PLUG DIMENSIONS TABLE)



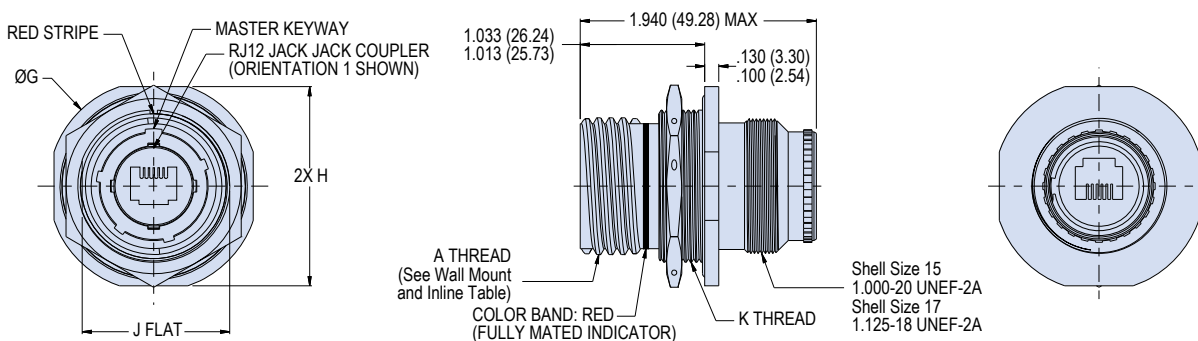
### D0 - WALL MOUNT RECEPTACLE (SEE WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)



### 05 - RECEPTACLE, INLINE (SEE WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)



### 07 - JAM NUT MOUNT RECEPTACLE (JAM NUT RECEPTACLE & PLUG DIMENSIONS TABLE)





# RJ45 CAT 5E ETHERNET 28840 SuperSeal™



## 900-300 Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)

H

How to Order	
<b>Part Number Example</b>	<b>900-300 NF D0 - 17 5H 1 1</b>
<b>Basic Number</b>	<b>900-300</b>
<b>Material/Finish</b>	See Material and Finish Options Table
<b>Connector Style</b>	<b>D0</b> = Receptacle, Wall Mount <b>05</b> = Receptacle, Inline <b>07</b> = Receptacle, Jam Nut <b>G6</b> = Plug
<b>Shielding</b>	<b>-</b> = Inline Shielded RJ45 <b>G</b> = Inline Shielded and Grounded to Shell
<b>Shell Size</b>	<b>17</b> or <b>19</b> (See Note 1)
<b>RJ45 Category</b>	<b>5H</b> = Cat 5E For Cat 6A applications consult factory
<b>Alternate Polarization</b>	<b>1, 2, 3, 4, 5, 6</b> See connector specifications page for further information (Per MIL-DTL-28840)
<b>RJ45 Orientation Option</b>	<b>1, 2, 3, 4</b> (See below for options)

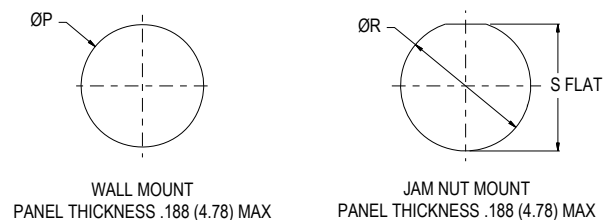
Wall Mount & Inline Receptacle Dimensions						
Shell Size	A Thread	B Sq	C Bsc	D Thread	E	ØF
17	1.125-.1P-.2L-DS-2A	1.403 (35.64) 1.363 (34.62)	1.015 (25.78)	1.125-18 UNEF 2A	1.143 (29.03) 1.133 (28.78)	1.338 (33.99) 1.318 (33.48)
19	1.312-.1P-.2L-DS-2A	1.528 (38.81) 1.488 (37.80)	1.140 (28.96)	1.250-18 UNEF 2A	1.330 (33.78) 1.320 (33.53)	1.525 (38.74) 1.505 (38.23)

Jam Nut Receptacle & Plug Dimensions						
Shell Size	ØG	H	J Flat	K Thread	ØL	ØN Max
17	1.743 (44.27) 1.723 (43.76)	1.649 (41.88) 1.629 (41.38)	1.216 (30.89) 1.207 (30.66)	1.250-18 UNEF 2A	1.354 (34.39) 1.344 (34.14)	1.387 (35.23)
19	1.931 (49.05) 1.911 (48.54)	1.837 (46.66) 1.817 (46.16)	1.403 (35.64) 1.394 (35.41)	1.4375-18 UNEF 2A	1.542 (39.17) 1.532 (38.91)	1.513 (38.43)

Panel Cutouts			
Shell Size	ØP	ØR	S Flat
17	1.187 (30.15)	1.265 (32.13) 1.255 (31.88)	1.228 (31.19) 1.218 (30.94)
19	1.374 (34.90)	1.453 (36.91) 1.443 (36.65)	1.415 (35.94) 1.405 (35.69)

Material and Finish Options		
Code	Material	Finish Description
<b>NF</b>	Aluminum	Cadmium O. D. Over Electroless Nickel (500 hour Salt Spray)
<b>ZN</b>		Zinc Nickel, Olive Drab
<b>MT</b>		Nickel-PTFE, 1000 Hour Grey™
<b>Z1</b>	Stainless Steel	Passivate
<b>ZU</b>		Black Cadmium Over Nickel
<b>AB</b>	Marine Bronze	None (Clean Only)

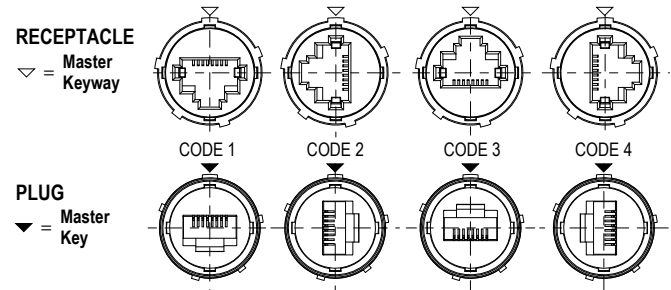
### RECOMMENDED PANEL CUT-OUTS



### NOTES

- Size 17 uses rear shielding sleeve.  
Size 19 uses front and rear shielding sleeve.
- Connector accessory features per M28840 connector designator G. Consult factory for accessory selection.
- Receptacle connector meets IP67 requirements in the unmated condition and plug meets IP68 requirements in the mated condition, consult factory for details.

### RJ45 ORIENTATION OPTIONS



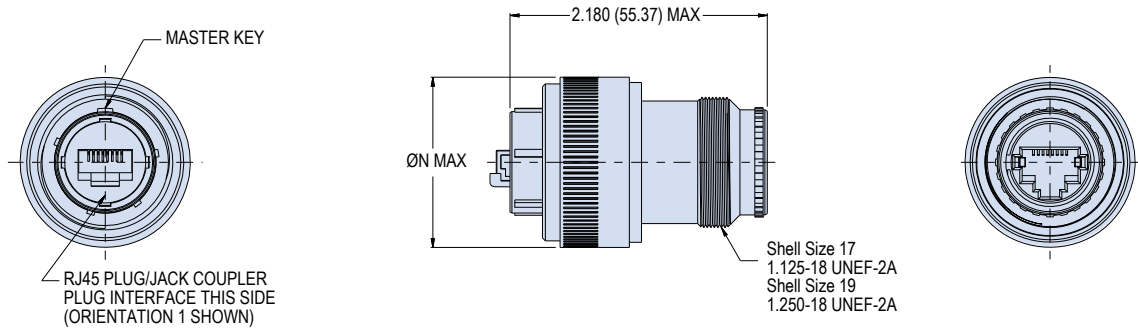


# RJ45 CAT 5E ETHERNET 28840 SuperSeal™

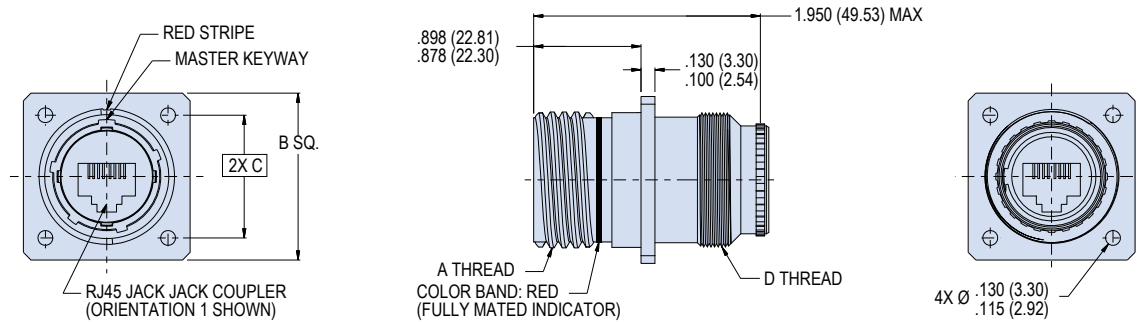


900-300 Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)

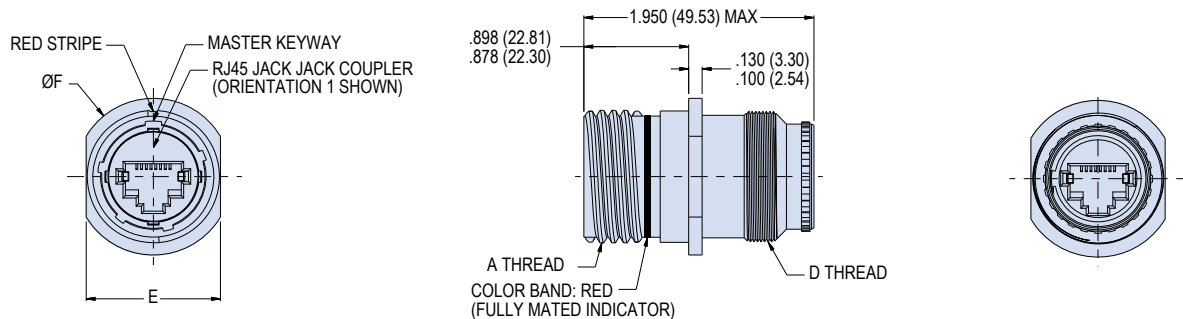
## G6 - PLUG (JAM NUT RECEPTACLE & PLUG DIMENSIONS TABLE)



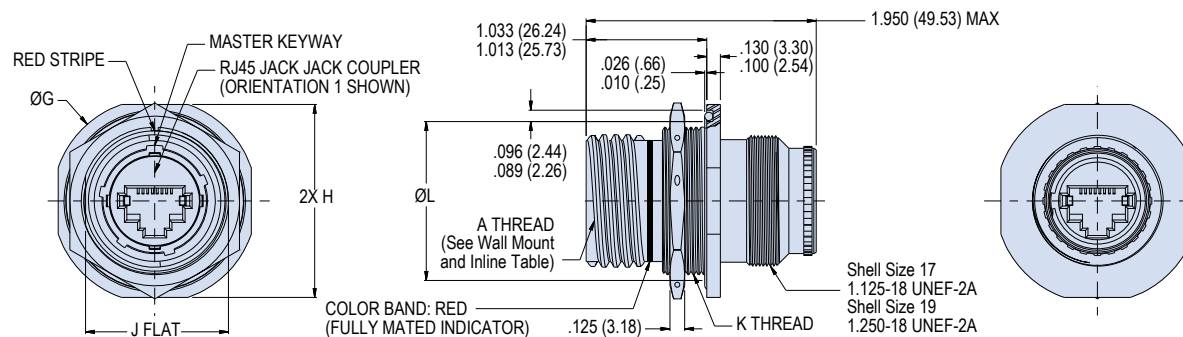
## D0 - WALL MOUNT RECEPTACLE (WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)



## 05 - RECEPTACLE, INLINE (WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)



## 07 - JAM NUT MOUNT RECEPTACLE (JAM NUT RECEPTACLE & PLUG DIMENSIONS TABLE)





# RJ45 CAT 5E ETHERNET 28840 SuperSeal™



## 900-301 Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

H

How to Order	
<b>Part Number Example</b>	<b>900-301 NF D0 - 17 5H 1 1</b>
<b>Basic Number</b>	<b>900-301</b> = Connector with Accessory Threads
<b>Material/Finish</b>	See Material and Finish Options Table
<b>Connector Style</b>	<b>D0</b> = Receptacle, Wall Mount <b>05</b> = Receptacle, Inline <b>07</b> = Receptacle, Jam Nut <b>G6</b> = Plug
<b>Shielding</b>	<b>-</b> = Inline Shielded RJ45 <b>G</b> = Inline Shielded and Grounded to Shell (See Note 4)
<b>Shell Size</b>	<b>17</b> or <b>19</b>
<b>RJ45 Category</b>	<b>5H</b> = CAT5E      For Cat 6A applications consult factory
<b>Alternate Polarization</b>	<b>1, 2, 3, 4, 5, 6</b> See connector specifications page for further information (Per MIL-DTL-28840)
<b>RJ45 Orientation</b>	<b>1, 2, 3, 4</b> (See below for options)

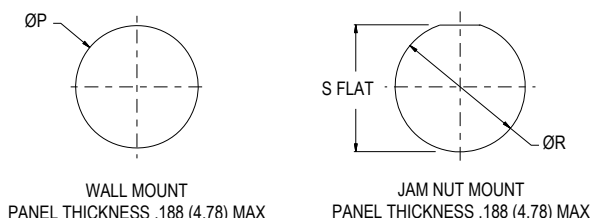
Wall Mount & Inline Receptacle Dimensions						
Shell Size	A Thread	B Sq	C Bsc	D Thread	E	ØF
17	1.125-.1P-.2L-DS-2A	1.403 (35.64)	1.015 (25.78)	1.125-18 UNEF 2A	1.143 (29.03)	1.338 (33.99)
		1.363 (34.62)			1.133 (28.78)	1.318 (33.48)
19	1.312-.1P-.2L-DS-2A	1.528 (38.81)	1.140 (28.96)	1.250-18 UNEF 2A	1.330 (33.78)	1.525 (38.74)
		1.488 (37.80)			1.320 (33.53)	1.505 (38.23)

Jam Nut Receptacle & Plug Dimensions					
Shell Size	ØG	H	J Flat	K Thread	ØL Max
17	1.743 (44.27)	1.649 (41.88)	1.216 (30.89)	1.250-18 UNEF 2A	1.387 (35.23)
	1.723 (43.76)	1.629 (41.38)	1.207 (30.66)		
19	1.931 (49.05)	1.837 (46.66)	1.403 (35.64)	1.4375-18 UNEF 2A	1.513 (38.43)
	1.911 (48.54)	1.817 (46.16)	1.394 (35.41)		

Panel Cutouts			
Shell Size	ØP	ØR	S Flat
17	1.187 (30.15)	1.265 (32.13)	1.228 (31.19)
		1.255 (31.88)	1.218 (30.94)
19	1.374 (34.90)	1.453 (36.91)	1.415 (35.94)
		1.443 (36.65)	1.405 (35.69)

Material and Finish Options		
Code	Material	Finish Description
<b>NF</b>	Aluminum	Cadmium O. D. Over Electroless Nickel (500 hour Salt Spray)
<b>ZN</b>		Zinc Nickel, Olive Drab
<b>MT</b>		Nickel-PTFE, 1000 Hour Grey™
<b>Z1</b>	Stainless Steel	Passivate
<b>ZU</b>		Black Cadmium Over Nickel
<b>AB</b>	Marine Bronze	None (Clean Only)

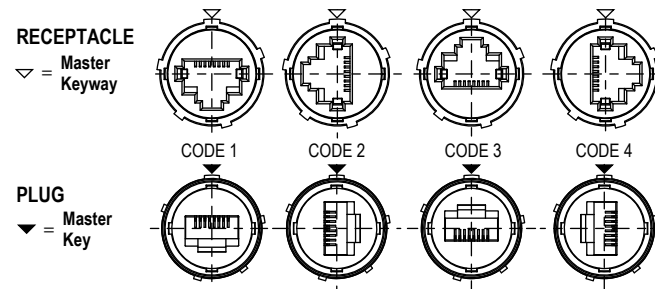
### RECOMMENDED PANEL CUT-OUTS



### NOTES

1. Connector meets general requirements of MIL-DTL-28840 and RJ45 connector meets TIA 568B standard.
2. Crimp removable contacts to conform to M39029/58-360 - size 22 pin contacts supplied loose.
3. Receptacle connector designed to meet IP67 unmated condition. Plug connector designed to meet IP68 mated condition, consult factory for detailed information.
4. "G" indicates RJ45 coupler is shielded inline and grounded to shell.
5. Connector accessory features per M28840 connector designator G. Consult factory for crimp tool and accessory selection.

### RJ45 ORIENTATION OPTIONS





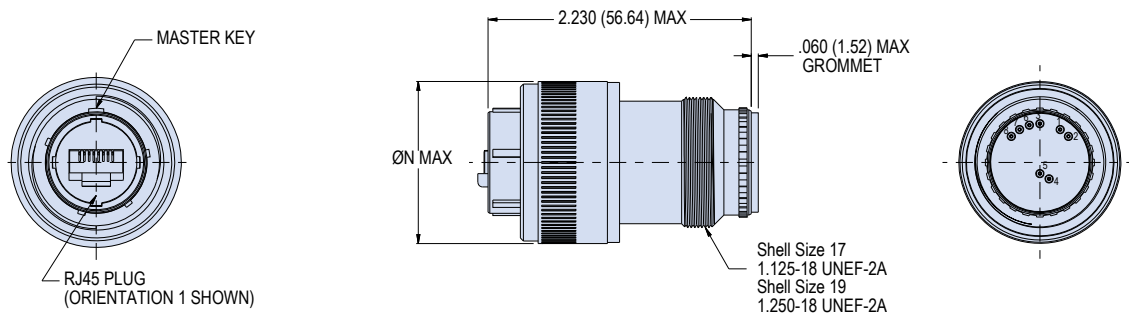


# RJ45 CAT 5E ETHERNET 28840 SuperSeal™

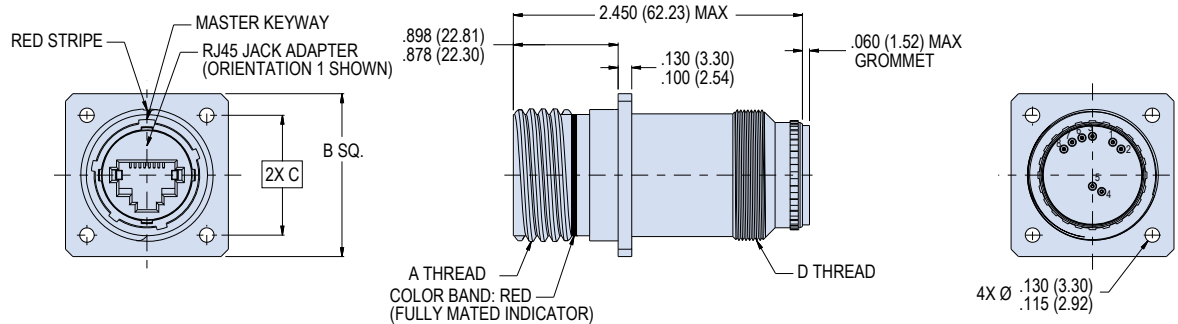


900-301 Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

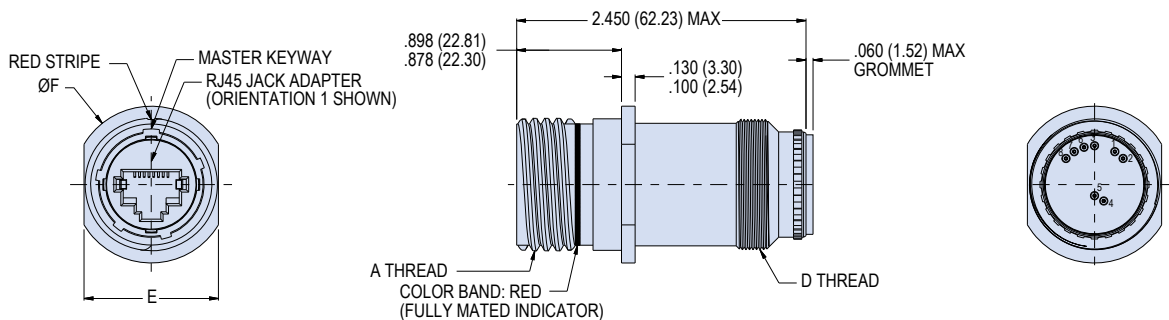
## G6 - PLUG (JAM NUT RECEPTACLE & PLUG DIMENSIONS TABLE)



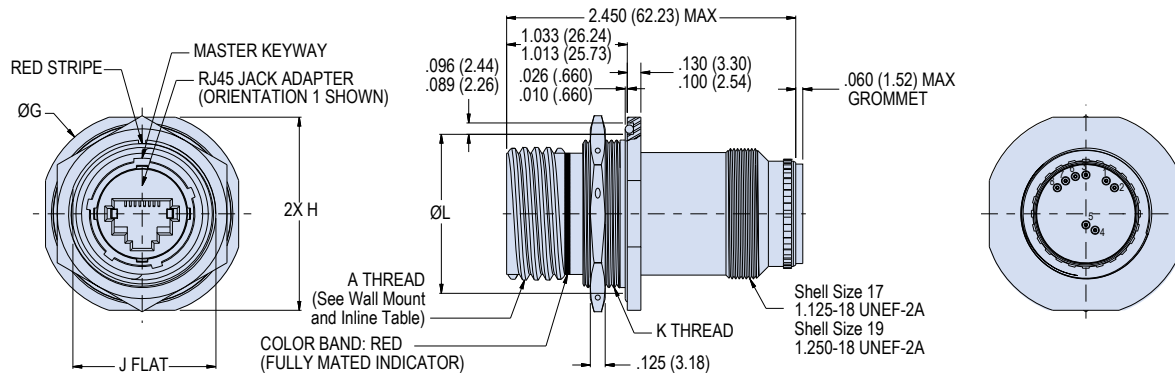
## D0 - WALL MOUNT RECEPTACLE (WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)



## 05 - RECEPTACLE, INLINE (WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)



## 07 - JAM NUT MOUNT RECEPTACLE (JAM NUT RECEPTACLE & PLUG DIMENSIONSTABLE)





# USB 2.0 TYPE A 28840 SuperSeal™



## 900-340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

H

How to Order	
<b>Part Number Example</b>	<b>900-340 NF D0 -15 2 A A 1 H</b>
<b>Basic Number</b>	<b>900-340</b>
<b>Material/Finish</b>	See Material and Finish Options Table
<b>Connector Style</b>	<b>D0</b> = Receptacle, Wall Mount <b>05</b> = Receptacle, Inline <b>07</b> = Receptacle, Jam Nut <b>G6</b> = Plug
<b>Shell Size</b>	<b>15</b>
<b>USB Performance</b>	<b>2</b> = USB 2.0
<b>USB Interface Type (Front)</b>	<b>A</b> = Type A
<b>USB Interface Type (Back)</b>	<b>A</b> = Type A
<b>Alternate Polarization</b>	<b>1, 2, 3, 4, 5, and 6</b> See connector specifications page for further information (Per MIL-DTL-28840)
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical (See below for options)

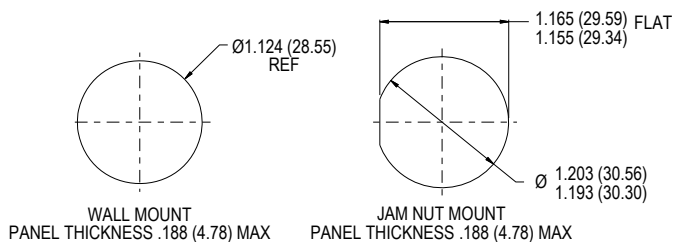
USB 2.0 Wiring			
Pin	Name	Cable Color (USB)	Description
1	(V BUS)	Red	+5 V
2	(D-)	White	Data -
3	(D+)	Green	Data +
4	(GND)	Black	Ground

Material and Finish Options		
Code	Material	Finish Description
<b>NF</b>	Aluminum	Cadmium O. D. Over Electroless Nickel (500 hour Salt Spray)
<b>ZN</b>		Zinc Nickel, Olive Drab
<b>MT</b>		Nickel-PTFE, 1000 Hour Grey™
<b>Z1</b>	Stainless Steel	Passivate
<b>ZU</b>		Black Cadmium Over Nickel
<b>AB</b>	Marine Bronze	None (Clean Only)

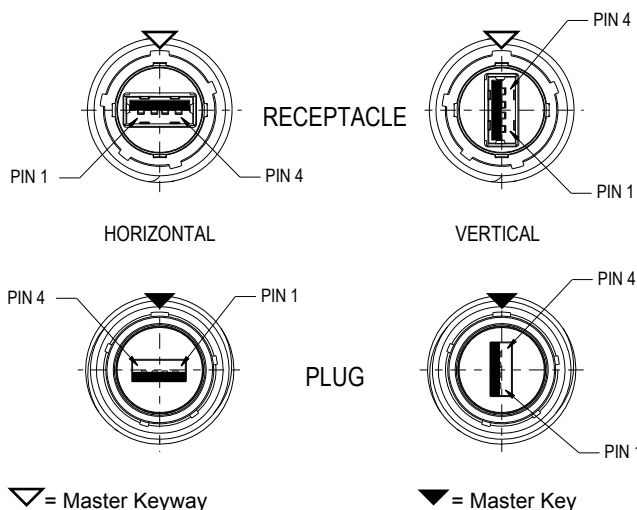
### NOTES

1. Connector and contacts shall meet general requirements of MIL-DTL-28840 and USB receptacle meets USB 2.0 standard.
2. Connector meets IP67 in the unmated condition.
3. Connector accessory features per M28840 connector designator G. Consult factory for shrink boot option and accessory selection.

### RECOMMENDED PANEL CUT-OUTS



### USB ORIENTATION OPTIONS





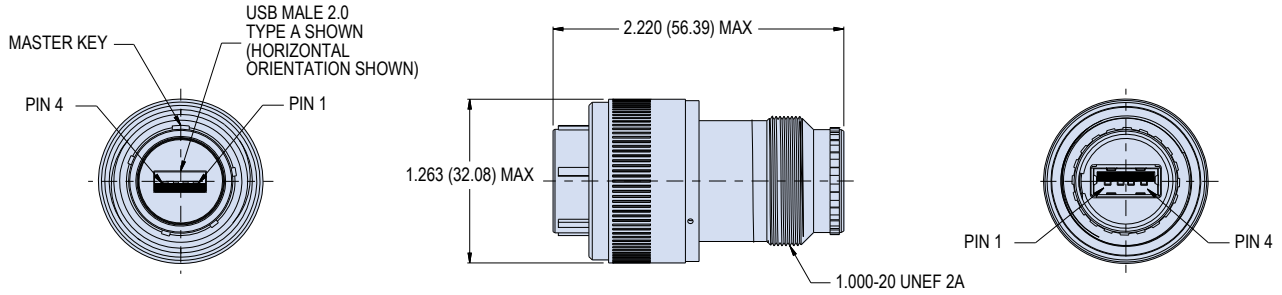
# USB 2.0 TYPE A 28840 SuperSeal™



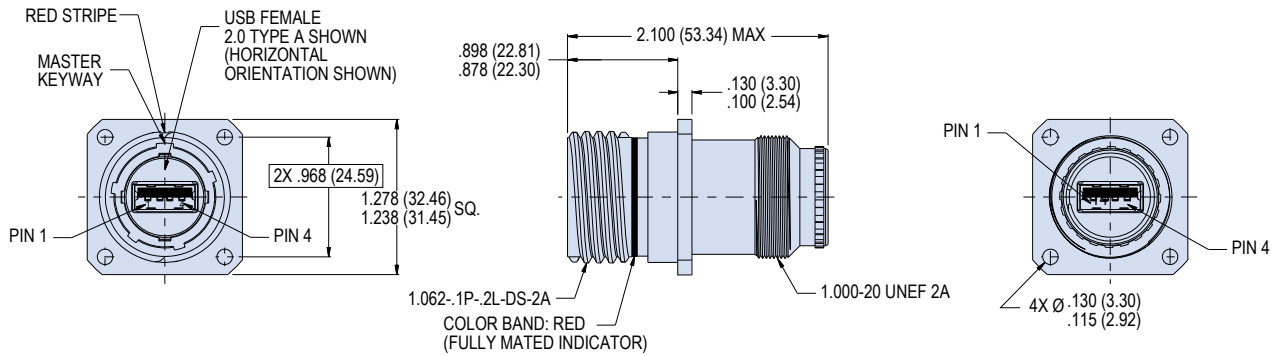
## 900-340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)



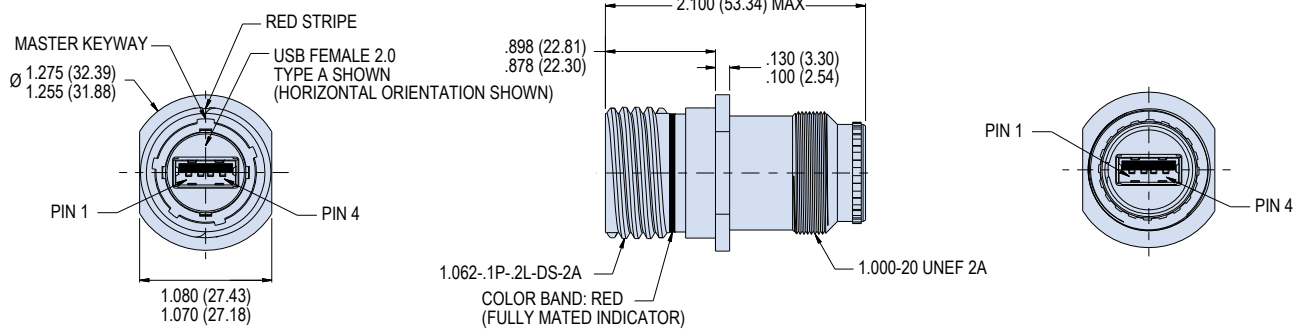
### G6 - PLUG



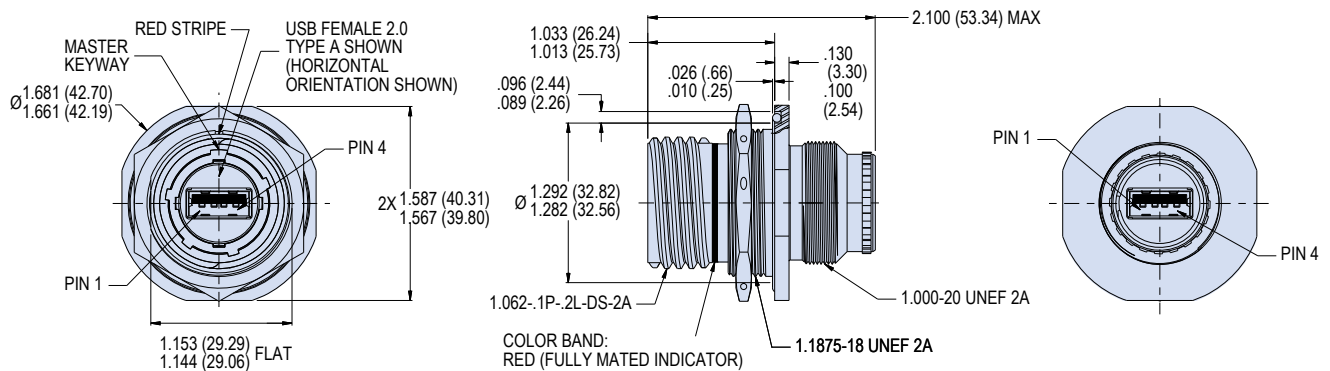
### D0 - WALL MOUNT RECEPTACLE



### 05 - RECEPTACLE, INLINE



### 07 - JAM NUT MOUNT RECEPTACLE





# USB 2.0 TYPE A 28840 SuperSeal™



## 900-345 Connector with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts

H

How to Order	
<b>Part Number Example</b>	<b>900-345 NF D0 -15 2 A 1 H</b>
<b>Basic Number</b>	<b>900-345</b>
<b>Material/Finish</b>	See Material and Finish Options Table
<b>Connector Style</b>	<b>D0</b> = Receptacle, Wall Mount <b>05</b> = Receptacle, Inline <b>07</b> = Receptacle, Jam Nut <b>G6</b> = Plug
<b>Shell Size</b>	<b>15</b>
<b>USB Performance</b>	<b>2</b> = USB 2.0
<b>USB Interface Type</b>	<b>A</b> = Type A
<b>Alternate Polarization</b>	<b>1, 2, 3, 4, 5, and 6</b> See connector specifications page for further information (Per MIL-DTL-28840)
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical

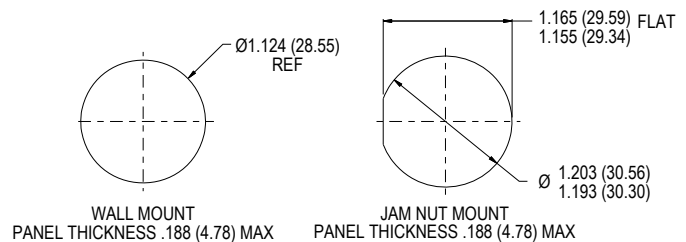
Material and Finish Options		
Code	Material	Finish Description
<b>NF</b>	Aluminum	Cadmium O. D. Over Electroless Nickel (500 hour Salt Spray)
<b>ZN</b>		Zinc Nickel, Olive Drab
<b>MT</b>		Nickel-PTFE, 1000 Hour Grey™
<b>Z1</b>	Stainless Steel	Passivate
<b>ZU</b>		Black Cadmium Over Nickel
<b>AB</b>	Marine Bronze	None (Clean Only)

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Sizes (AWG)
1	(V BUS)	Red	+5 V	22
2	(D-)	White	DATA -	28
3	(D+)	Green	DATA +	28
4	(GND)	Black	GROUND	22

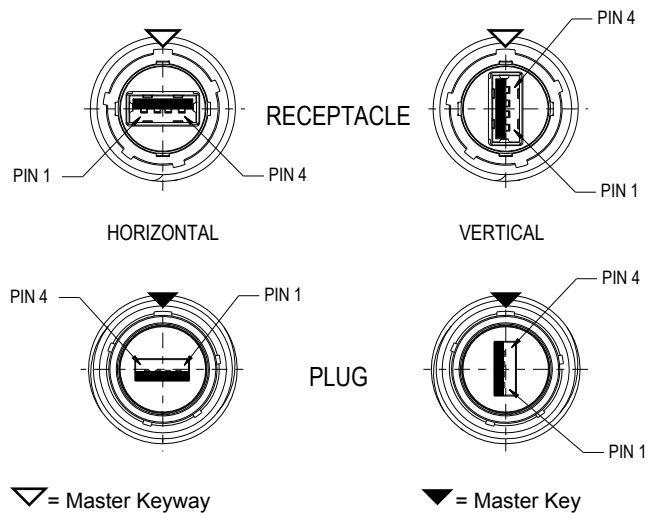
### NOTES

- Connector shall meet general requirements of MIL-DTL-28840. USB connector shall be per USB 2.0 standard.
- Crimp removable contacts conform to: M39029/56-348 - size 22 socket contacts (supplied loose). Connector meets IP67 in the unmated condition
- Connector accessory features per M28840 connector designator G. Consult factory for crimp tool and accessory selection.

### RECOMMENDED PANEL CUT-OUTS



### USB ORIENTATION OPTIONS



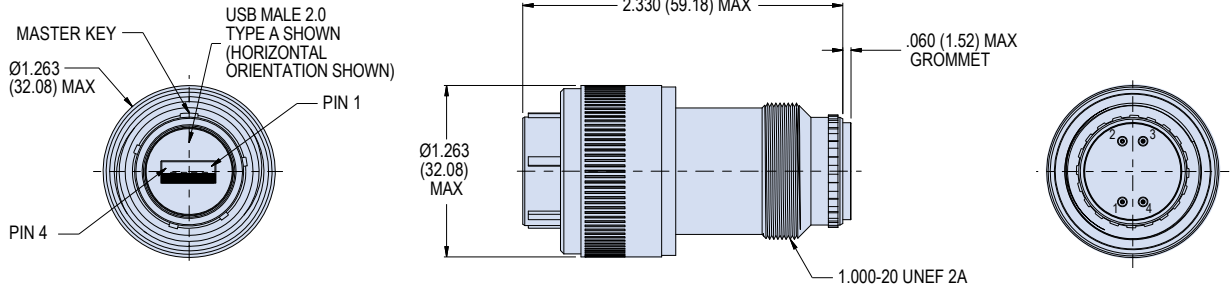


USB 2.0 TYPE A  
28840 SuperSeal™

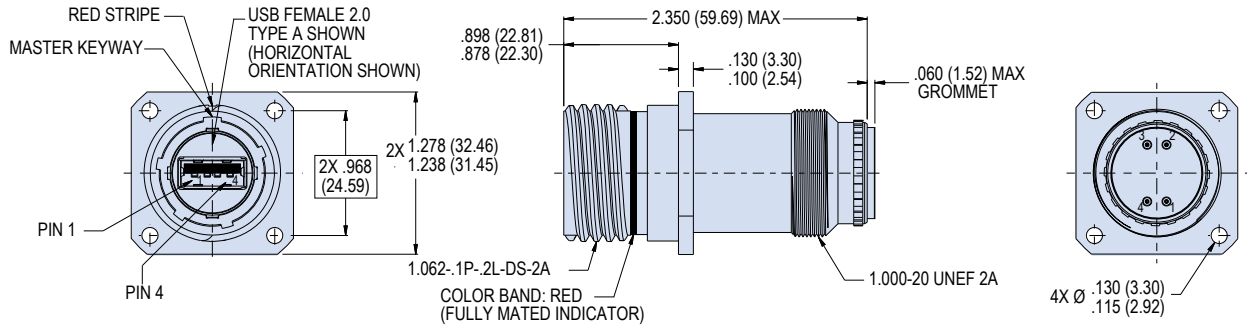


900-345 Connector with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts

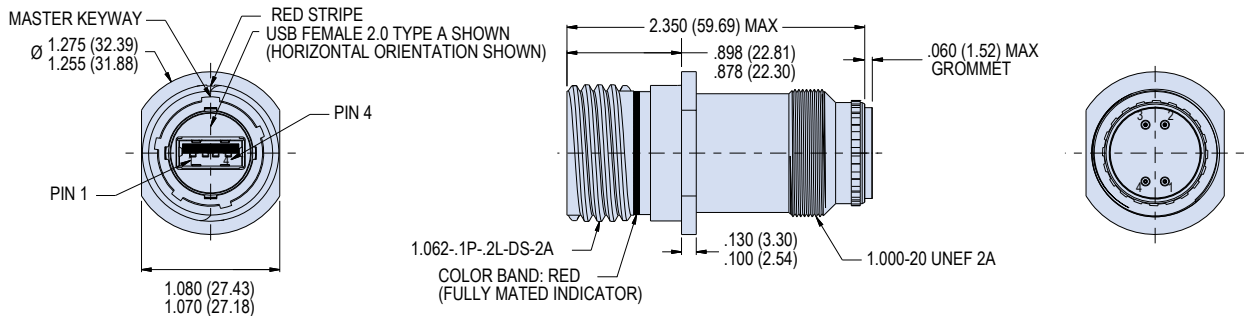
**G6 - PLUG**



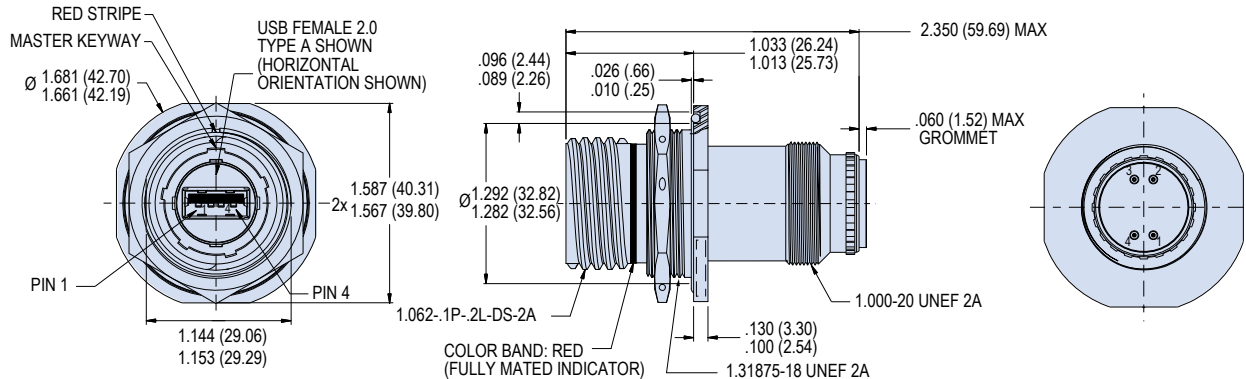
**D0 - WALL MOUNT RECEPTACLE**



**05 - RECEPTACLE, INLINE**



**07 - JAM NUT MOUNT RECEPTACLE**



**SERIES 80**  
MIGHTY MOUSE  
MICRO USB

# SUPERSEAL™

Series 801, 804 and 805 Mighty Mouse Micro USB connectors with robust sealing, shielding and a variety of termination options.



#### *Mighty Mouse Micro USB Advantages*

- Reliable sealing—IP67 unmated, IP68 mated—for complete system protection against water, sand and dust
- Fast and reliable crimp contact termination
- Versatile back end: integrated banding porch shrink boot or connector accessory interface
- Support for both micro USB 2.0 “B” male and “AB” female interfaces
- Mating style for every application requirement including double-start stub ACME threaded coupling, QDC push-pull, and triple-start threaded versions
- Less than half the size and weight compared to MIL-DTL-38999 type solutions



Glenair, Inc.  
1211 Air Way  
Glendale, CA 91201-2497  
818-247-6000  
sales@glenair.com  
www.glenair.com



MICRO USB 2.0

# Series 801, 804 and 805 Mighty Mouse



## Product Selection Guide

### Series 801 Double Start



**801-082 and 801-083** Page J-2  
SuperSeal™ Plug with USB Micro “B” Male Interface to Crimp Removable Contacts and Accessory Options.

**801-084 and 801-085** Page J-3  
SuperSeal™ Receptacle with USB Micro “AB” Female Interface to Crimp Removable Contacts and Accessory Options.

**801-087 and 801-088** Page J-4  
SuperSeal™ Plug Adapter with USB Micro “B” Male-to-Male Interface and Accessory Options.

**801-089 and 801-090** Page J-5  
SuperSeal™ Receptacle Adapter with USB Micro “AB” Female-to-Female Interface. and Accessory Options

**801-091** Page J-6  
SuperSeal™ Sav-Con® Connector Saver with USB Micro “B” Male Interface to “AB” Female Interface.

### Series 804 Push/Pull



**804-082 and 804-083** Page J-7  
SuperSeal™ Plug with USB Micro “AB” Female Interface to Crimp Removable Contacts and Accessory Options.

**804-084 and 804-085** Page J-8  
SuperSeal™ Receptacle with USB Micro “AB” Female Interface to Crimp Removable Contacts and Accessory Options.

**804-087 and 804-088** Page J-9  
SuperSeal™ Plug Adapter with USB Micro “AB” Female-to-Female Interface. and Accessory Options

**804-091** Page J-10  
SuperSeal™ Sav-Con® Connector Saver with USB Micro “AB” Female Interface to Micro “B” Male Interface.

### Series 805 Triple Start



**805-082 and 805-083** Page J-11  
SuperSeal™ Plug with USB Micro “B” Male Interface to Crimp Removable Contacts and Accessory Options.

**805-084 and 805-085** Page J-12  
SuperSeal™ Receptacle with USB Micro “AB” Female Interface to Crimp Removable Contacts and Accessory Options.

**805-087 and 805-088** Page J-13  
SuperSeal™ Plug Adapter with USB Micro “B” Male-to-Male Interface and Accessory Options.

**805-089 and 805-090** Page J-14  
SuperSeal™ Receptacle Adapter with USB Micro “AB” Female-to-Female Interface. and Accessory Options

**805-091** Page J-15  
SuperSeal™ Sav-Con® Connector Saver with USB Micro “B” Male Interface to Micro “AB” Female Interface.



# MICRO USB 2.0 Series 801 Mighty Mouse



## 801-082 and 801-083 Plug with USB Micro "B" Male Interface to Crimp Removable Contacts

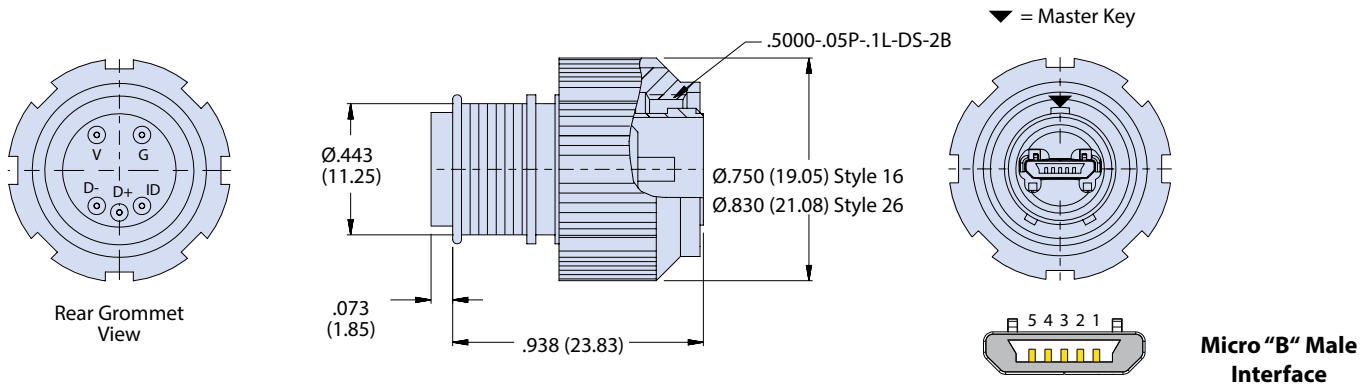
Series 801 Double Start



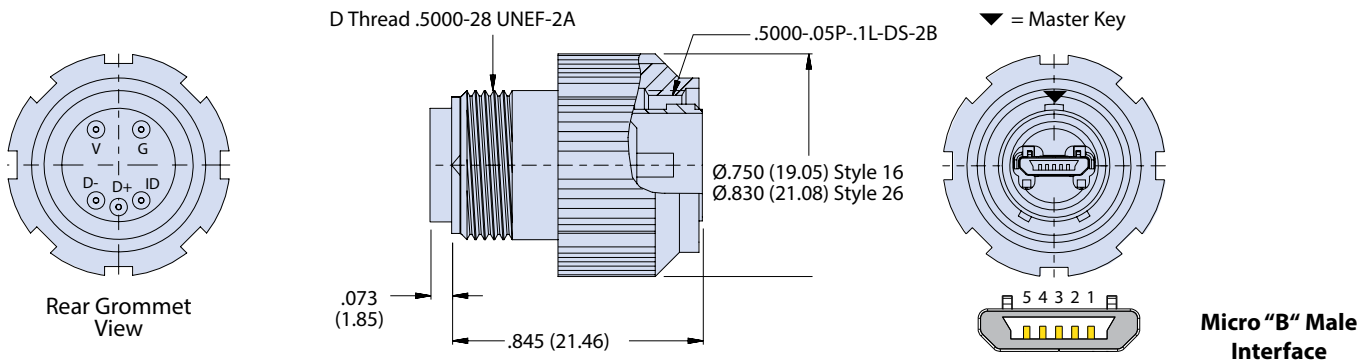
Plug and Rear View of Crimp Termination

How To Order				
Sample Part Number	801-082	-16 MUSB	-M	A
Series	801-082 = Shield Termination Porch 801-083 = Accessory Threads			
Shell Style <sup>1</sup>	16 = Plug with Anti-Decoupling Spring 26 = Self-Locking Plug with Ratchet Mechanism			
Shell Material and Finish <sup>1</sup>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel			
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F			

### 801-082 PLUG WITH SHIELD TERMINATION PORCH, SHELL SIZE 8



### 801-083 PLUG WITH ACCESSORY THREADS, SHELL SIZE 8



#### NOTES

- See Section A for alternate keyway positions and additional finishes.
- Plug connectors mate with Glenair receptacles 801-084, 801-085, 801-089 and 801-090
- Contacts are crimp type, and used in rear release retention system (809-001)

Wire Schematic				
Rear Grommet Side			Mating Side	
Label	Cable Color (Typ)		ID	Micro USB Pin Description
V	Red	1	VBUS (V)	
G	Black	2	D-	
D-	White	3	D+	
D+	Green	4	ID	
ID	None	5	GND (G)	

⏏ Ground





# MICRO USB 2.0 Series 801 Mighty Mouse



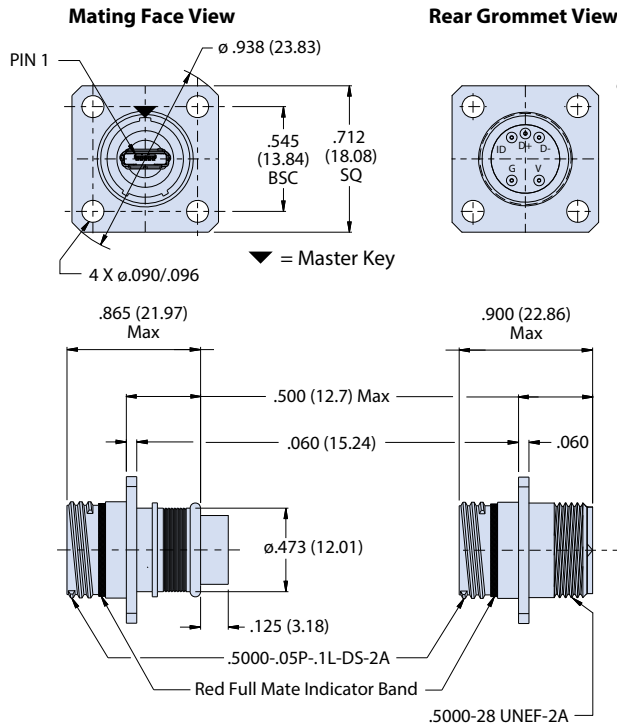
## 801-084 and 801-085 Receptacle with USB Micro "AB" Female Interface to Crimp Removable Contacts



Receptacles and Rear View of Crimp Termination

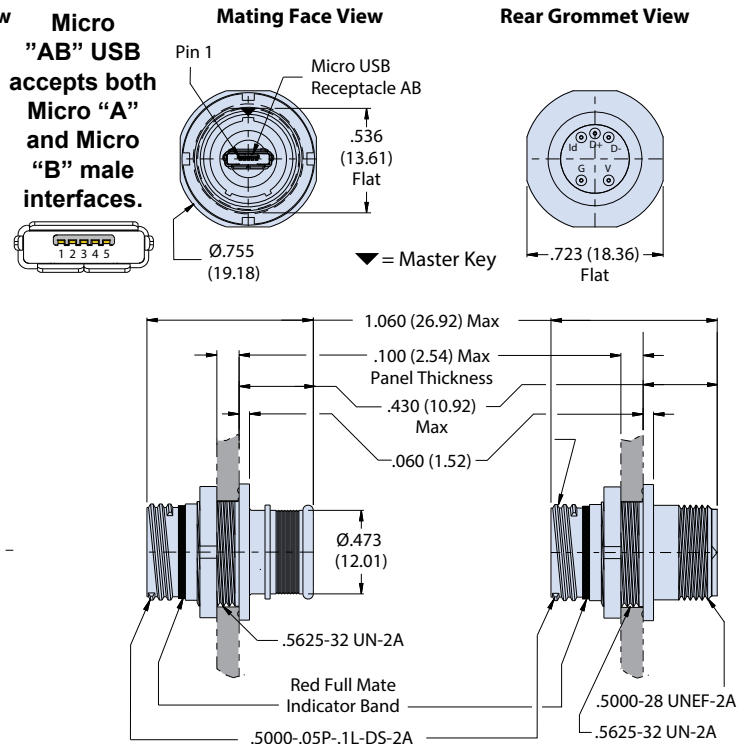
How To Order				
Sample Part Number	801-084	-02 MUSB	-M	A
Series	801-084 = Shield Termination Porch 801-085 = Accessory Threads			
Shell Style <sup>1</sup>	02 = Square Flange Mount Receptacle 07 = Jam Nut Mount Receptacle			
Shell Material and Finish <sup>1</sup>	NF = AL/Cadmium, Olive Drab MT = AL/Nickel PTFE		M = AL/Electroless Nickel ZNU = AL/Black Zinc Nickel	
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F			

### 801-084-02 AND 801-085-02 SQUARE FLANGE



801-084-02 Receptacle with Shield Termination Porch      801-085-02 Receptacle with Accessory Threads

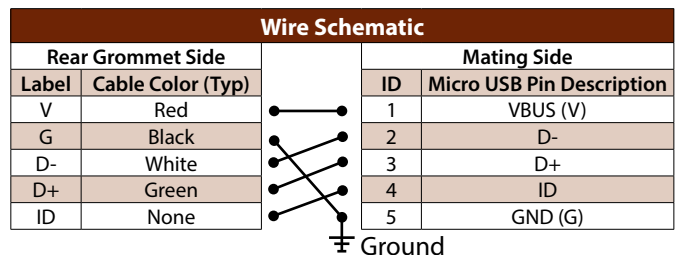
### 801-085-07 AND 801-085-07 JAM NUT



801-084-07 Receptacle with Shield Termination Porch      801-085-07 Receptacle with Accessory Threads

### NOTES

- See Section A for recommended panel, additional finishes and alternate keyway positions.
- Receptacle connectors mate with Glenair plugs 801-082, 801-083, 801-087 and 801-088
- Contacts are crimp type, and used in rear release retention system (809-001)





# MICRO USB 2.0 Series 801 Mighty Mouse



## 801-087 and 801-088 Plug Adapter with USB Micro "B" Male Interface

Series 801 Double Start

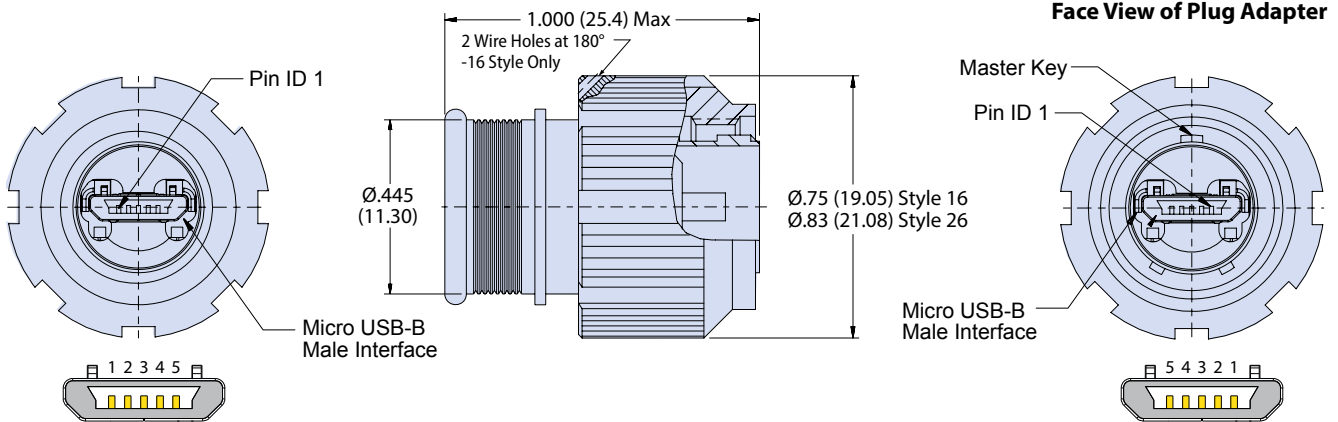


Plug and Rear View  
of Micro "B" Male  
Interface

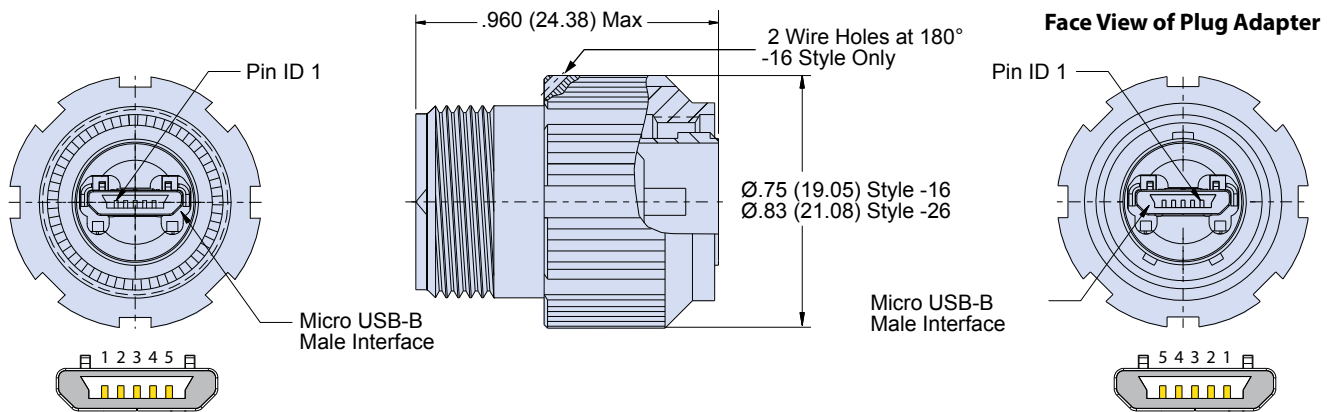


How To Order				
Sample Part Number	801-087	-16 MUSB	-M	A
Series	801-087 = Shield Termination Porch 801-088 = Accessory Threads			
Shell Style <sup>1</sup>	16 = Plug with Anti-Decoupling Spring 26 = Self-Locking Plug with Ratchet Mechanism			
Shell Material and Finish <sup>1</sup>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel			
Shell Key Positions	A, B, C, D, E, F			

### 801-087 WITH SHIELD TERMINATION PORCH, SHELL SIZE 8



### 801-088 PLUG WITH ACCESSORY THREADS, SHELL SIZE 8



#### NOTES

1. See Section A for alternate keyway positions, and additional finishes
2. Plug connectors mate with Glenair receptacles 801-084, 801-085, 801-089 and 801-090



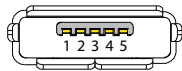
# MICRO USB 2.0 Series 801 Mighty Mouse



## 801-089 and 801-090 Receptacle Adapter with USB Micro "AB" Female-to-Female Interface



Receptacle with Micro "AB" Front and Rear Female Interface



Receptacle and Rear View of Micro "AB" Female Interface

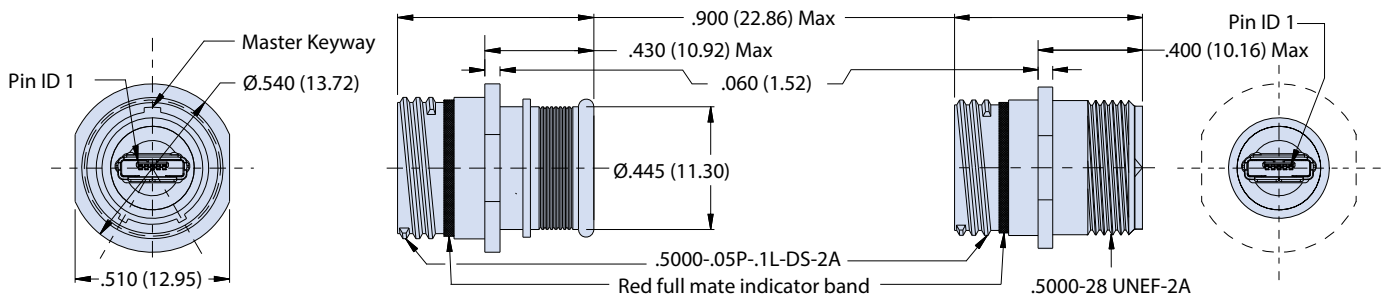
How To Order				
Sample Part Number	801-089	-02 MUSB	-M	A
Series	801-089 = Shield Termination Porch 801-090 = Accessory Threads			
Shell Style*	01 = In Line Receptacle 07 = Jam Nut Rear Mount Receptacle 02 = Square Flange Front or Rear Mount Receptacle			
Shell Material and Finish*	NF = AL/Cadmium, Olive Drab MT = AL/Nickel PTFE		M = AL/Electroless Nickel ZNU = AL/Black Zinc Nickel	
Shell Key Positions*	A, B, C, D, E, F			

\*See Section A for recommended panel cutout, alternate keyway positions, and additional finishes. Mates with Glenair plugs 801-082, 801-083, 801-087, and 801-088

### 801-089-01 AND 801-090-01 INLINE RECEPTACLE ADAPTER, SHELL SIZE 8

805-089-01 Receptacle with Shield Termination Porch

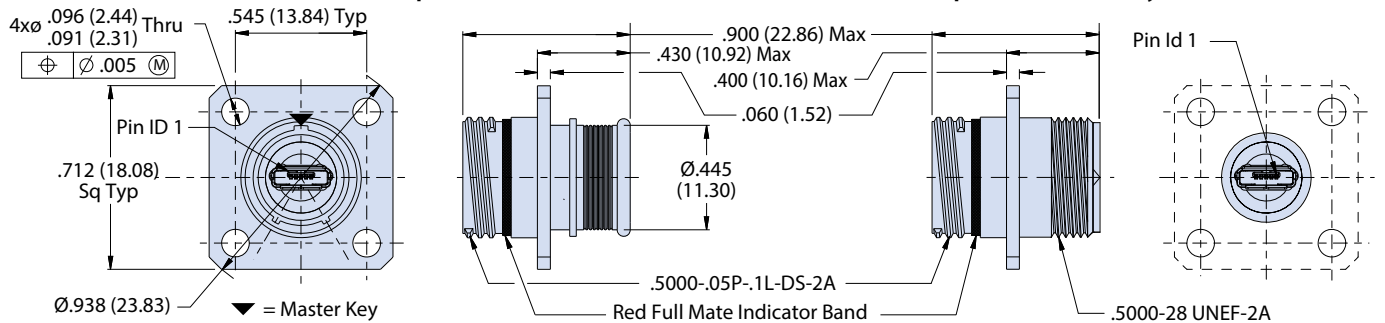
801-090-01 Receptacle with Accessory Thread



### 801-089-02 AND 801-090-02 SQ FLANGE RECEPTACLE ADAPTER, SHELL SIZE 8

805-089-02 Receptacle with Shield Termination Porch

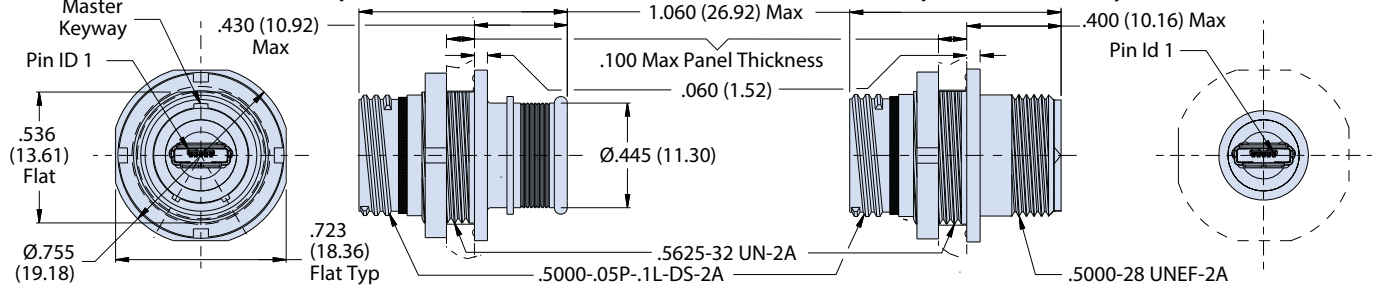
801-090-02 Receptacle with Accessory Thread



### 801-089-07 AND 801-090-07 JAM NUT RECEPTACLE WITH, SHELL SIZE 8

805-089-07 Receptacle with Shield Termination Porch

801-090-07 Receptacle with Accessory Thread





# MICRO USB 2.0 Series 801 Mighty Mouse

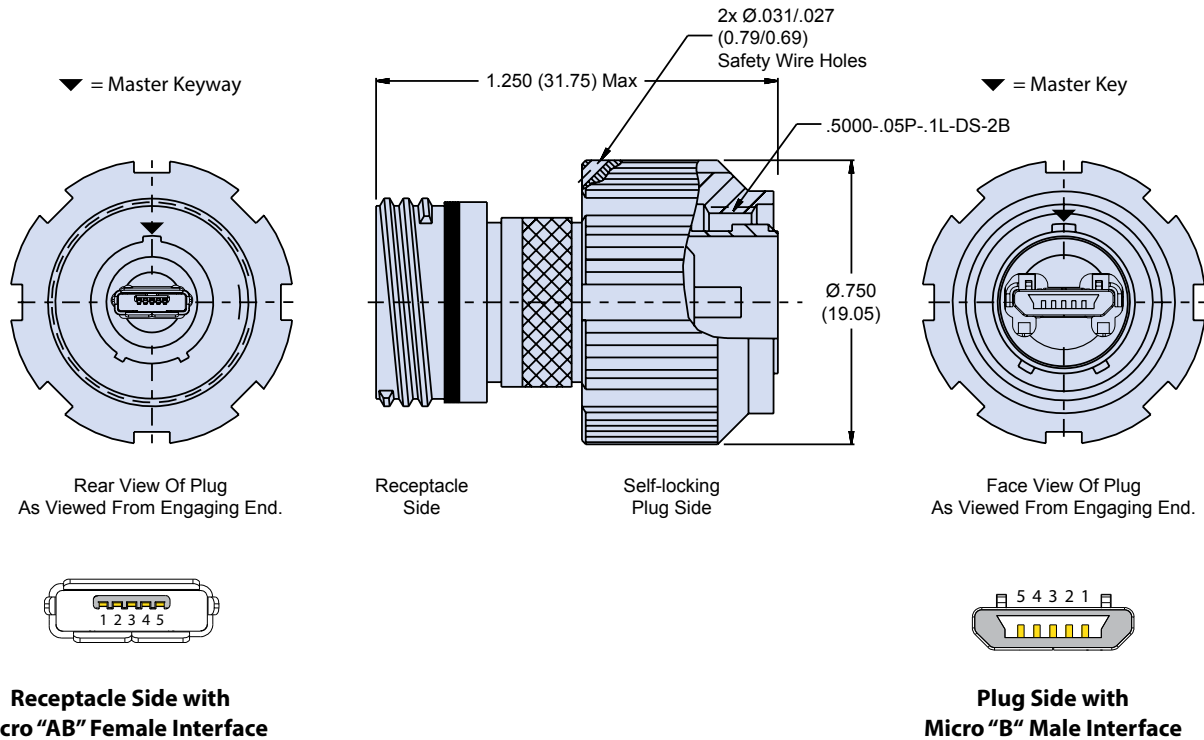


## 801-091 Sav-Con® Connector Saver with USB Micro “B” Male Interface to “AB” Female Interface

Series 801 Double Start

How To Order			
Sample Part Number	801-091 -MUSB	-M	A
Series	801-091 = Plug/Receptacle Sav-Con® Connector Saver		
Shell Material and Finish <sup>1</sup>	NF = Aluminum/Cadmium, Olive Drab M = Electroless Nickel MT = Nickel PTFE ZNU = Black Zinc Nickel		
Shell Key Positions	A, B, C, D, E, F		

### 801-091 SAV-CON MICRO “B” MALE TO “AB” FEMALE INTERFACE, SHELL SIZE 8



#### NOTES

1. See Section A for additional finishes and alternate keyway positions.



MICRO USB 2.0

# Series 804 Push/Pull Mighty Mouse



## 804-082 and 804-083 Plug with USB Micro "AB" Female Interface



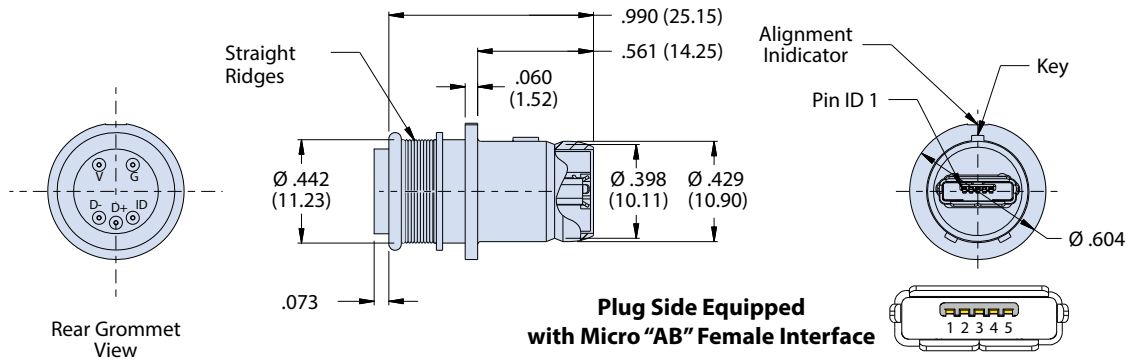
Plug and Rear View of Crimp Termination

How To Order				
Sample Part Number	804-082	-06 MUSB	-M	A
Series	804-082 = Shield Termination Porch 804-083 = Accessory Threads			
Shell Style	06 = Plug			
Shell Material and Finish <sup>1</sup>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel			
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F			

Series 804 Push/Pull

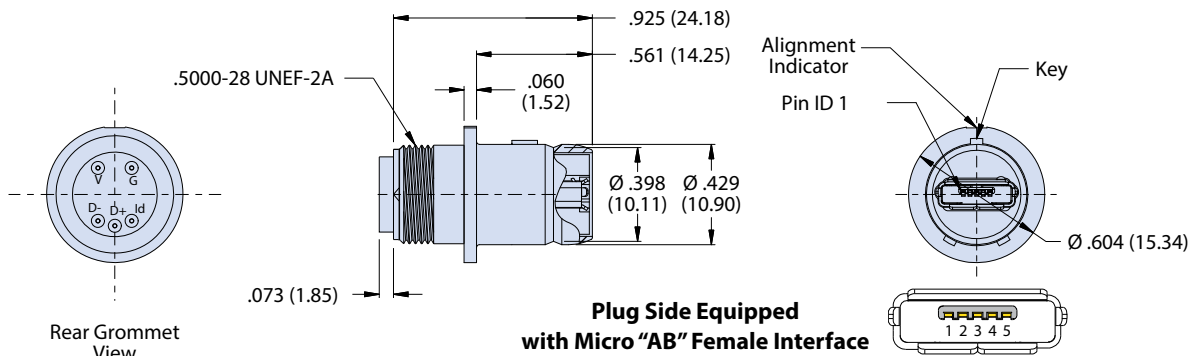
J

### 804-082 PLUG, SHELL SIZE 8



Plug Side Equipped with Micro "AB" Female Interface

### 804-083 PLUG, SHELL SIZE 8



Plug Side Equipped with Micro "AB" Female Interface

### NOTES

1. See Section A alternate keyway positions, and additional finishes.
2. These plug connectors mate with Glenair receptacles 804-084, 804-085.
3. Contacts are crimp type, and used in rear release retention system (809-005)

Wire Schematic				
Rear Grommet Side			Mating Side	
Label	Cable Color (Typ)		ID	Micro USB Pin Description
V	Red	1	VBUS (V)	
G	Black	2	D-	
D-	White	3	D+	
D+	Green	4	ID	
ID	None	5	GND (G)	

⏏ Ground



MICRO USB 2.0

# Series 804 Push/Pull Mighty Mouse



## 804-084 and 804-085 Receptacle with USB Micro "B" Female Interface to Crimp Removable Contacts

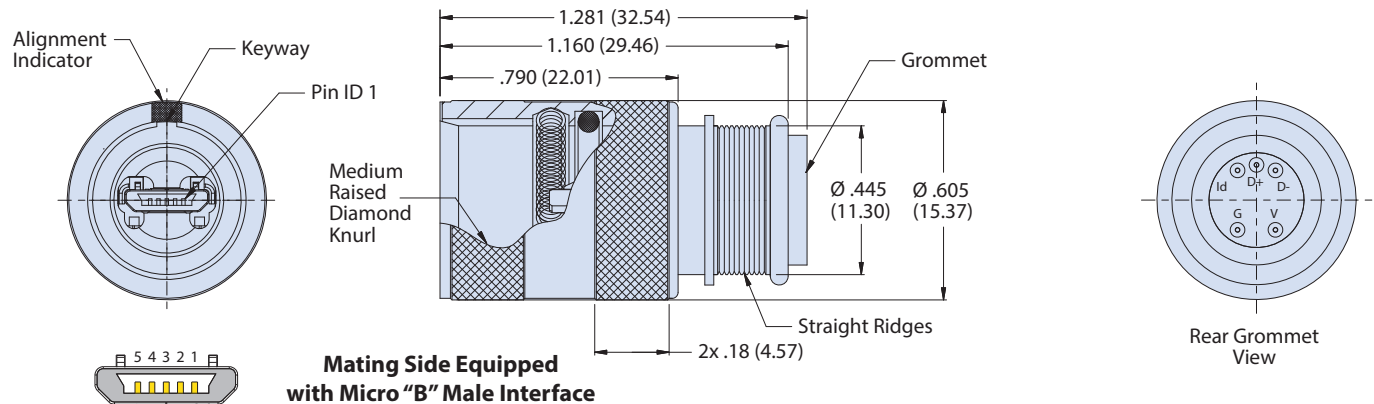
Series 804 Push/Pull



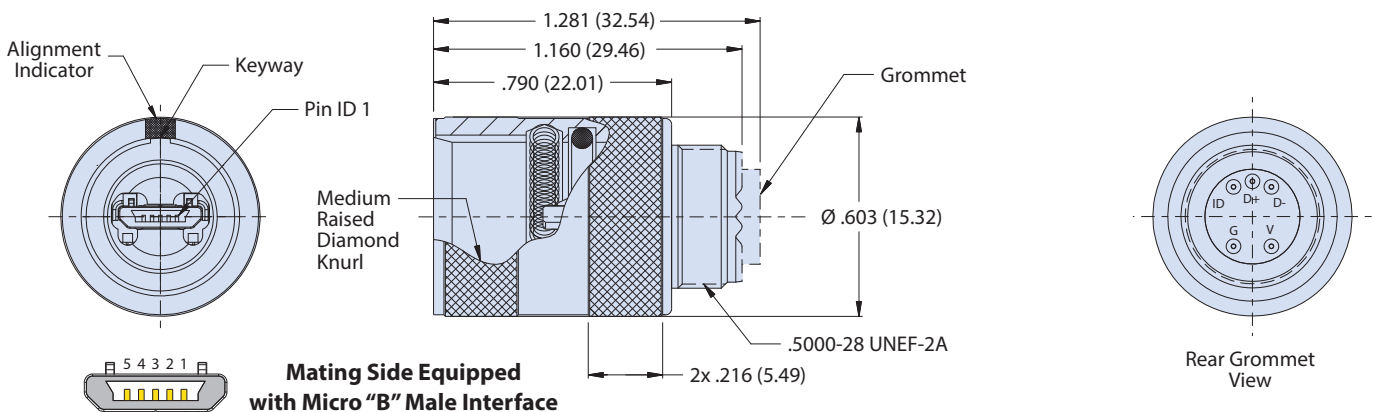
Receptacle and Rear View of Crimp Termination

How To Order				
Sample Part Number	804-084	-01 MUSB	-M	A
Series	804-084 = Shield Termination Porch 804-085 = Accessory Threads			
Shell Style	01 = In Line Receptacle			
Shell Material and Finish <sup>1</sup>	NF = AL/Cadmium, Olive Drab MT = AL/Nickel PTFE	M = AL/Electroless Nickel ZNU = AL/Black Zinc Nickel		
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F			

### 804-084 RECEPTACLE, SHELL SIZE 8<sup>1,2</sup>

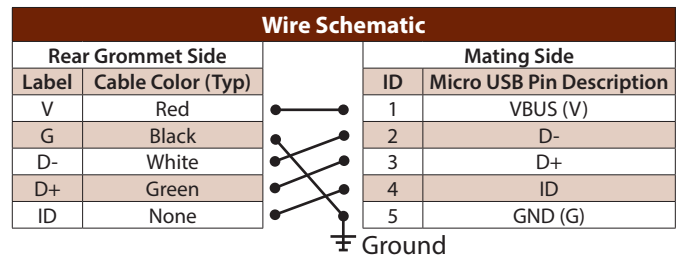


### 804-085 RECEPTACLE, SHELL SIZE 8<sup>1,2</sup>



#### NOTES

- See Section A for alternate keyway positions and additional finishes.
- These plug connectors mate with Glenair receptacles 804-082, 804-083, 804-087 and 804-088.
- Contacts are rear crimp type and are used in a rear retention system (809-005).





MICRO USB 2.0

# Series 804 Push/Pull Mighty Mouse

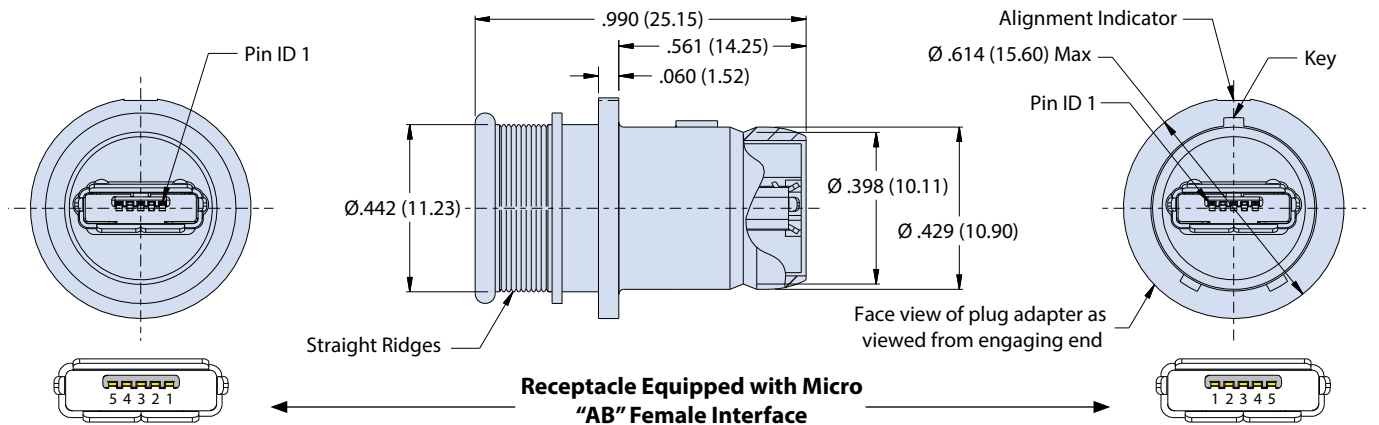
## 804-087 and 804-088 Plug Adapter with USB Micro "AB" Female-to-Female Interface



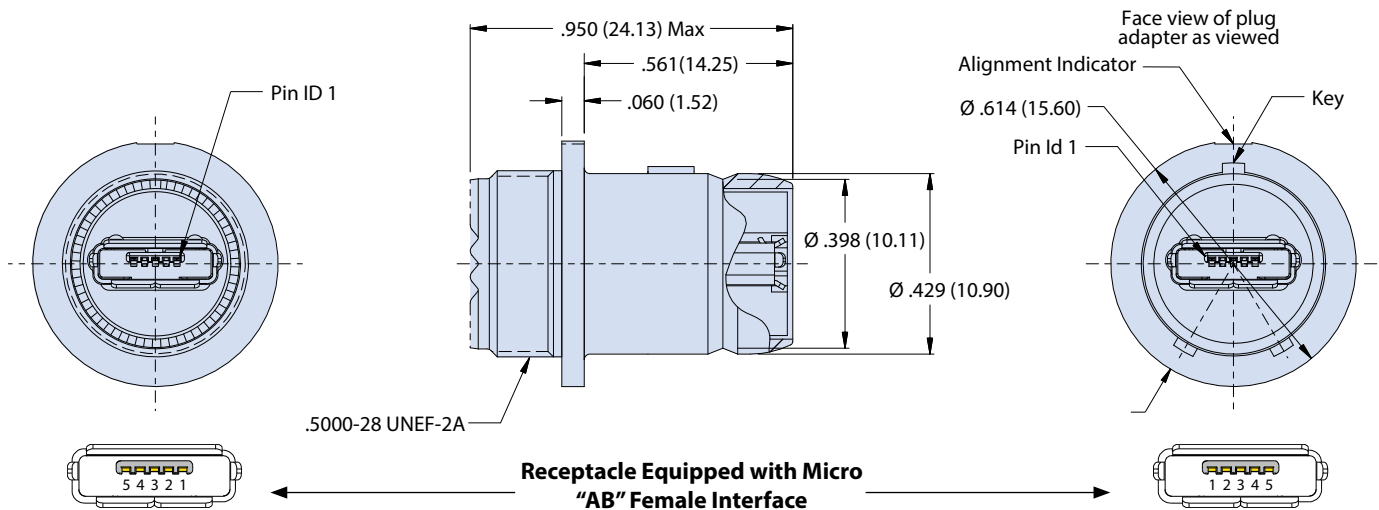
Plug and Rear View of Micro "AB" Female Interface

How To Order				
Sample Part Number	804-087	-06 MUSB	-M	A
Series	804-087 = Shield Termination Porch 804-088 = Accessory Threads			
Shell Style	06 = Plug			
Shell Material and Finish <sup>1</sup>	NF = AL/Cadmium, Olive Drab MT = AL/Nickel PTFE		M = AL/Electroless Nickel ZNU = AL/Black Zinc Nickel	
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F			

### 804-087 PLUG ADAPTER, SHELL SIZE 8<sup>1,2</sup>



### 804-088 PLUG ADAPTER, SHELL SIZE 8<sup>1,2</sup>



### NOTES

1. See Section A for recommended panel cutout, alternate keyway positions and additional finishes.
2. These plug connectors mate with Glenair receptacles 804-082, 804-083, 804-084 and 804-085.



MICRO USB 2.0

# Series 804 Push/Pull Mighty Mouse

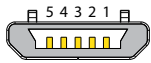
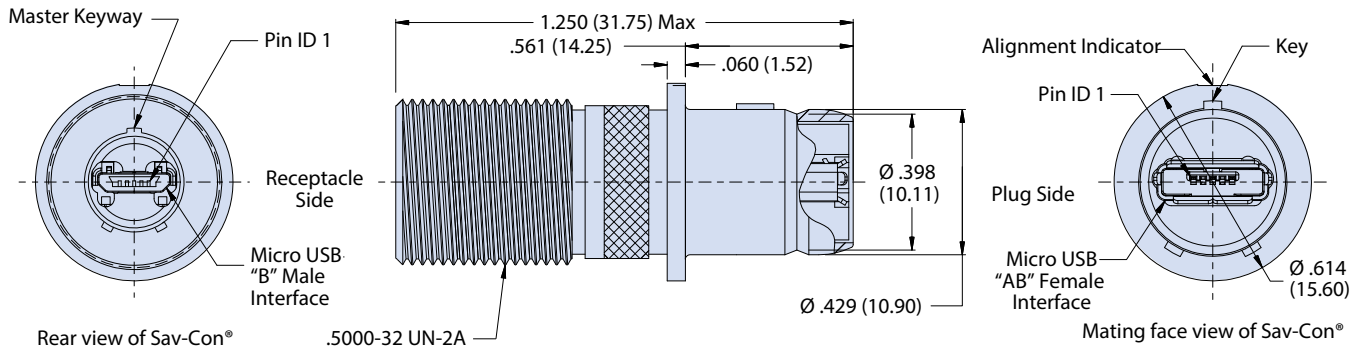


## 804-091 Sav-Con® Connector Saver with USB Micro "AB" Female Interface to Micro "B" Male Interface

Series 804 Push/Pull

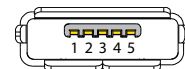
How To Order			
Sample Part Number	804-091 -MUSB	-M	A
Series	804-091 = Sav-Con® connect saver		
Shell Material and Finish <sup>1</sup>	NF = AL/Cadmium Olive Drab MT = AL/Nickel PTFE	M = AL/Electroless Nickel ZNU = AL/Black Zinc Nickel	
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F		

### 804-091 SAV-CON®, SHELL SIZE 8<sup>1</sup>



Rear Equipped with Micro B USB Male Interface

Plug Side Equipped with Micro AB USB Female Interface



### NOTES

1. See Section A for additional finishes and alternate keyway positions.





# MICRO USB 2.0 Series 805 Mighty Mouse



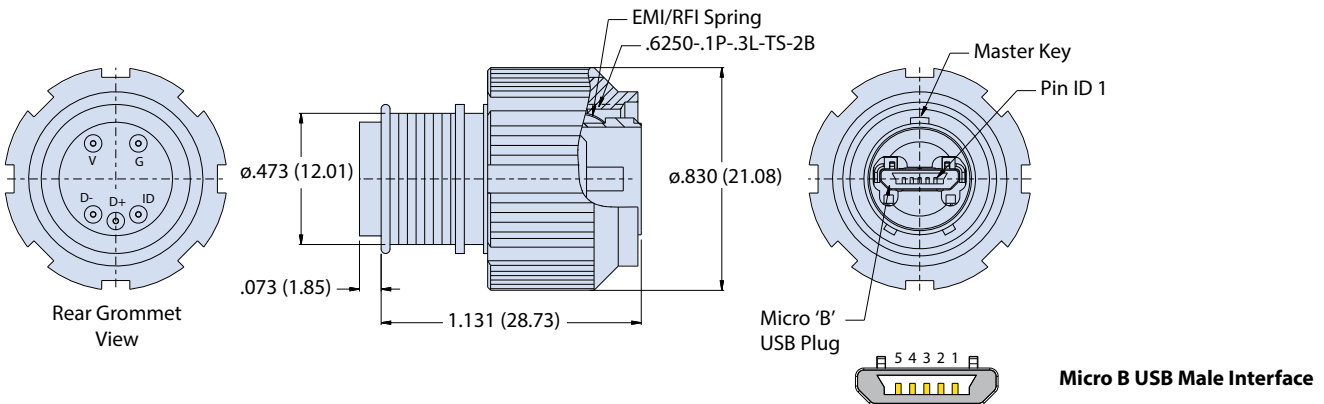
## 805-082 and 805-083 Plug with USB Micro "B" Male Interface to Crimp Removable Contacts



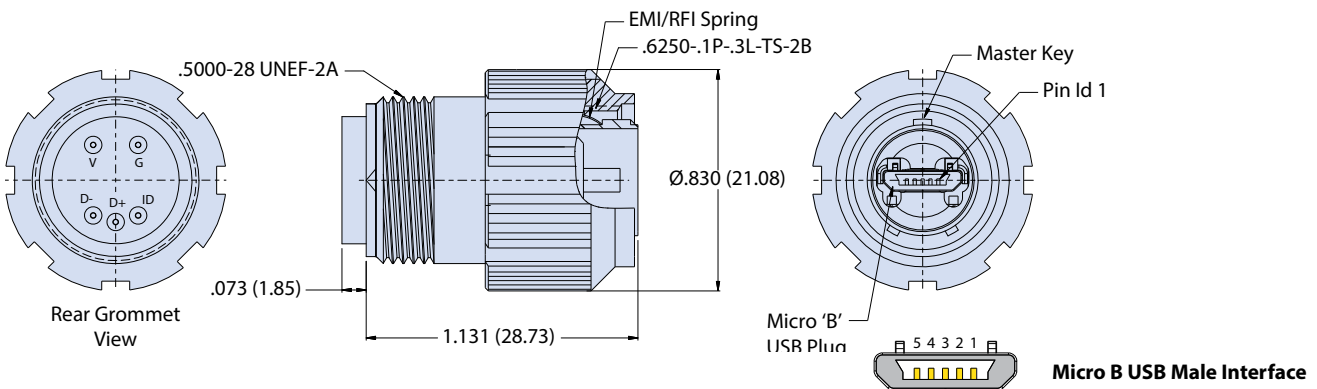
Plug and Rear View of Crimp Termination

How To Order				
Sample Part Number	805-082	-16 MUSB	-M	A
Series	805-082 = Shield Termination Porch 805-083 = Accessory Threads			
Shell Style	16 = Plug with Anti-decoupling Spring			
Shell Material and Finish <sup>1</sup>	NF = AL/Cadmium, Olive Drab MT = AL/Nickel PTFE		M = AL/Electroless Nickel ZNU = AL/Black Zinc Nickel	
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F			

### 805-082 PLUG WITH INTEGRAL SHIELD TERMINATION PORCH, SHELL SIZE 10<sup>1,2</sup>



### 805-083 PLUG WITH INTEGRAL ACCESSORY THREAD, SHELL SIZE 10<sup>1,2</sup>



#### NOTES

- See Section A for alternate keyway positions and additional finishes.
- These plug connectors mate with Glenair receptacles 805-084, 805-085, 805-089 and 805-090.

Wire Schematic				
Rear Grommet Side			Mating Side	
Label	Cable Color (Typ)		ID	Micro USB Pin Description
V	Red	1	VBUS (V)	
G	Black	2	D-	
D-	White	3	D+	
D+	Green	4	ID	
ID	None	5	GND (G)	

⏏ Ground



# MICRO USB 2.0 Series 801 Mighty Mouse



## 805-084 and 805-085 Receptacle with USB Micro "AB" Female Interface to Crimp Removable Contacts

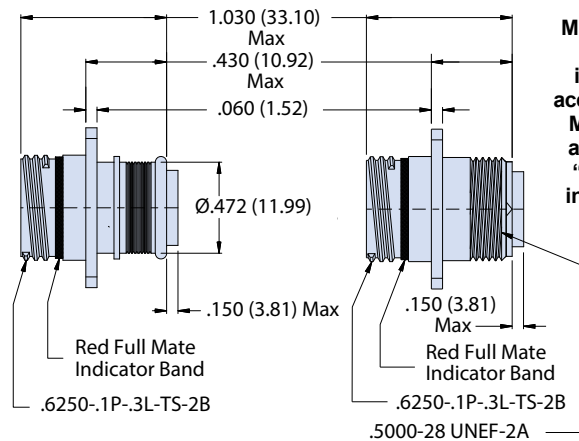
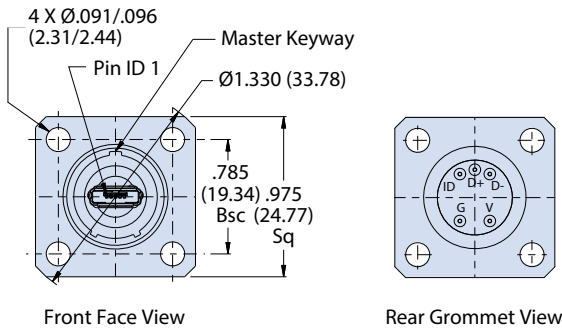
Series 805 Triple Start



Receptacles and Rear View of Crimp Termination

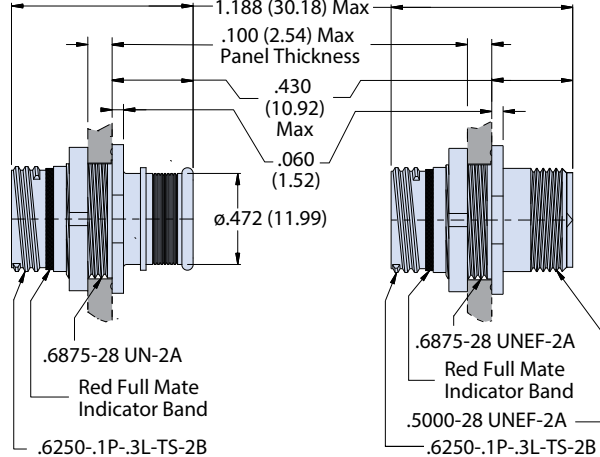
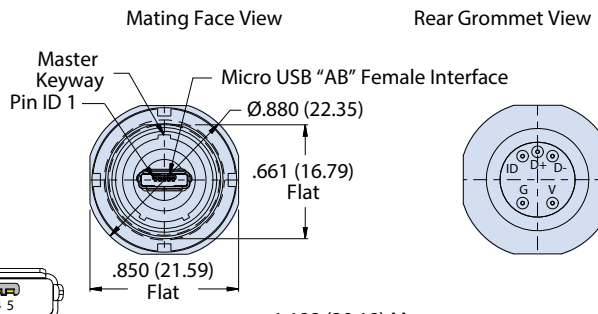
How To Order				
Sample Part Number	805-084	-07 MUSB	-M	A
Series	805-084 = Shield Termination Porch 805-085 = Accessory Threads			
Shell Style	02 = Square Flange Mount Receptacle 07 = Jam Nut Mount Receptacle			
Shell Material and Finish <sup>1</sup>	NF = AL/Cadmium, Olive Drab MT = AL/Nickel PTFE		M = AL/Electroless Nickel ZNU = AL/Black Zinc Nickel	
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F			

### 805-084-02 AND 805-085-02 SQUARE FLANGE, SHELL SIZE 10<sup>1,2</sup>



**805-084-02 Receptacle with Shield Termination Porch**      **805-085-02 Receptacle with Accessory Threads**

### 805-084-07 AND 805-085-07 JAM NUT, SHELL SIZE 10<sup>1,2</sup>



**805-084-07 Receptacle with Shield Termination Porch**      **805-085-07 Receptacle with Accessory Threads**

### NOTES

- See Section A for recommended panel cutout, additional finishes and alternate keyway positions.
- These plug connectors mate with Glenair receptacles 805-082, 805-083, 805-087 and 805-088.

Wire Schematic				
Rear Grommet Side			Mating Side	
Label	Cable Color (Typ)		ID	Micro USB Pin Description
V	Red	1	VBUS (V)	
G	Black	2	D-	
D-	White	3	D+	
D+	Green	4	ID	
ID	None	5	GND (G)	

Ground



# MICRO USB 2.0 Series 805 Mighty Mouse



## 805-087 and 805-088 Plug Adapter with USB Micro "B" Male-to-Male Interface

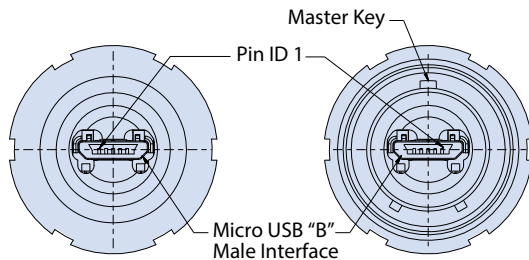


Plug and Rear View  
of Micro "B" Male Interface

How To Order				
Sample Part Number	805-087	-16 MUSB	-M	A
Series	805-087 = Shield Termination Porch 804-088 = Accessory Threads			
Shell Style	16 = Plug with Anti-decoupling Spring			
Shell Material and Finish <sup>1</sup>	NF = AL/Cadmium, Olive Drab MT = AL/Nickel PTFE		M = AL/Electroless Nickel ZNU = AL/Black Zinc Nickel	
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F			

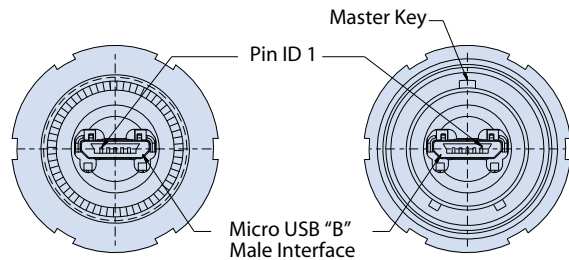
### 805-087 PLUG ADAPTER, SHELL SIZE 10

### 805-088 PLUG ADAPTER, SHELL SIZE 10



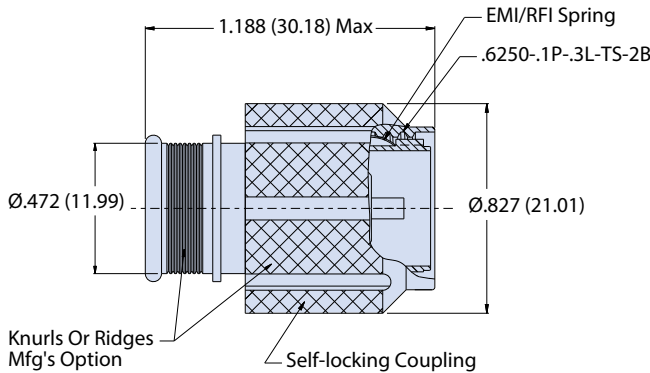
Face view of plug adapter  
as viewed from cable end.

Face view of plug adapter  
as viewed from engaging end.

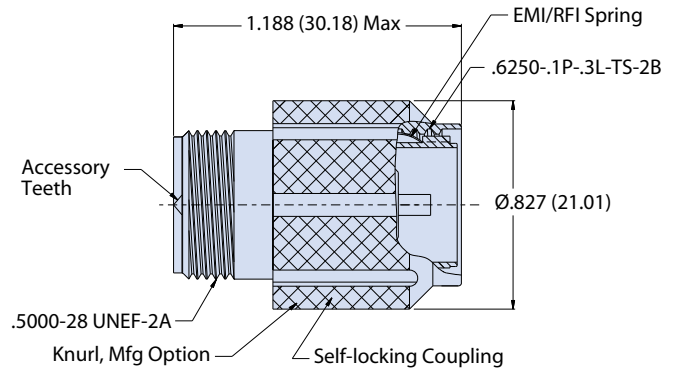


Face view of plug adapter  
as viewed from cable end.

Face view of plug adapter  
as viewed from engaging end.



**805-087 Plug Adapter  
with Shield Termination Porch**



**805-088 Plug Adapter  
with Accessory Thread**



Rear Micro "B" USB Plug (Cable End)



Front Micro "B" USB Plug (engaging end)

### NOTES

1. See Section A for alternate keyway positions and additional finishes.
2. These plug connectors mate with Glenair receptacles 805-084, 805-085, 805-089 and 805-090.



# MICRO USB 2.0 Series 805 Mighty Mouse



## 805-089 and 805-090 Receptacle Adapter with USB Micro "AB" Female-to-Female Interface

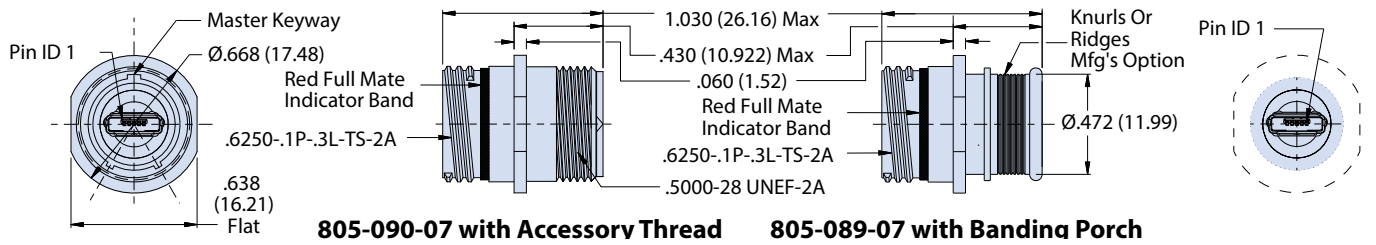
Series 805 Triple Start



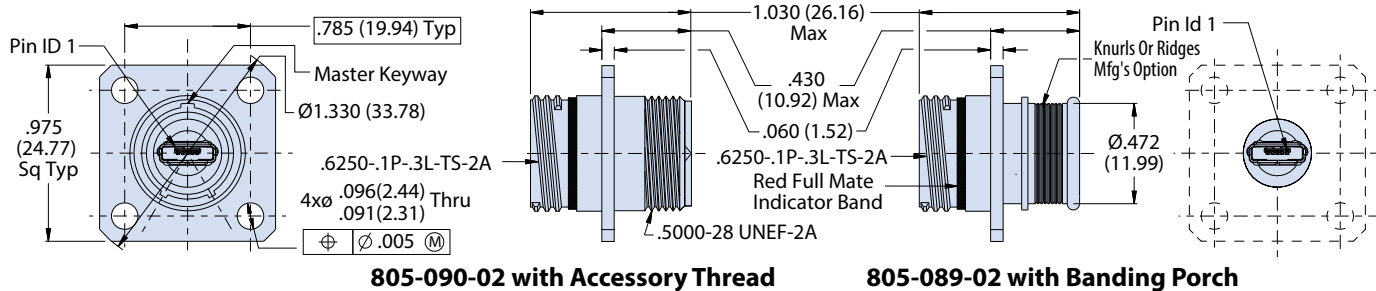
Receptacles and Rear View of Micro-AB Female Interface

How To Order				
Sample Part Number	805-089	-02 MUSB	-M	A
Series	805-089 = Shield Termination Porch 805-090 = Accessory Threads			
Shell Style	01 = In-line Receptacle 02 = Square Flange Mount Receptacle 07 = Jam Nut Mount Receptacle			
Shell Material and Finish <sup>1</sup>	NF = AL/Cadmium, Olive Drab MT = AL/Nickel PTFE		M = AL/Electroless Nickel ZNU = AL/Black Zinc Nickel	
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F			

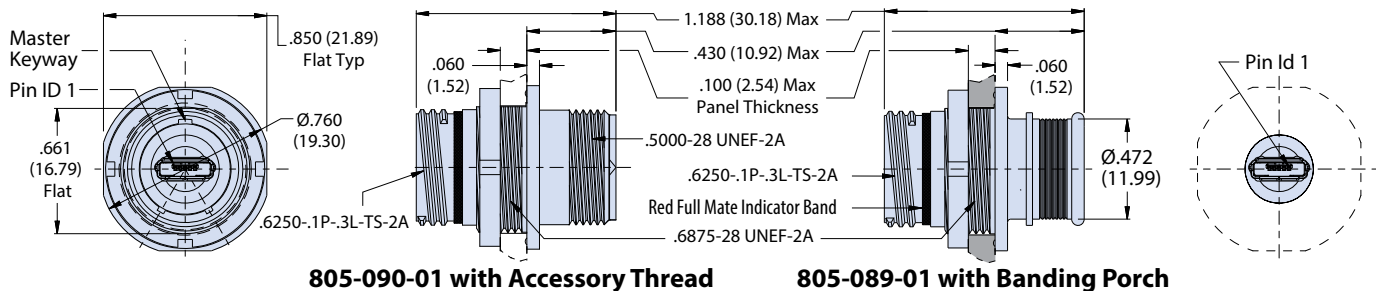
### 805-089 AND 805-090 IN-LINE RECEPTACLE, SHELL SIZE 10<sup>1,2</sup>



### 805-089 AND 805-090 SQUARE FLANGE RECEPTACLE, SHELL SIZE 10<sup>1,2</sup>



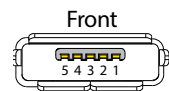
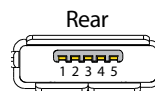
### 805-089 AND 805-090 JAM NUT RECEPTACLE, SHELL SIZE 10<sup>1,2</sup>



#### NOTES

- See Section A for recommended panel cutout, finishes and alternate keyway positions.
- These plug connectors mate with Glenair receptacles 805-082, 805-083, 805-087 and 805-088.

Micro "AB" accepts both Micro "A" and "B" male interfaces.





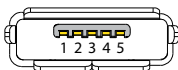
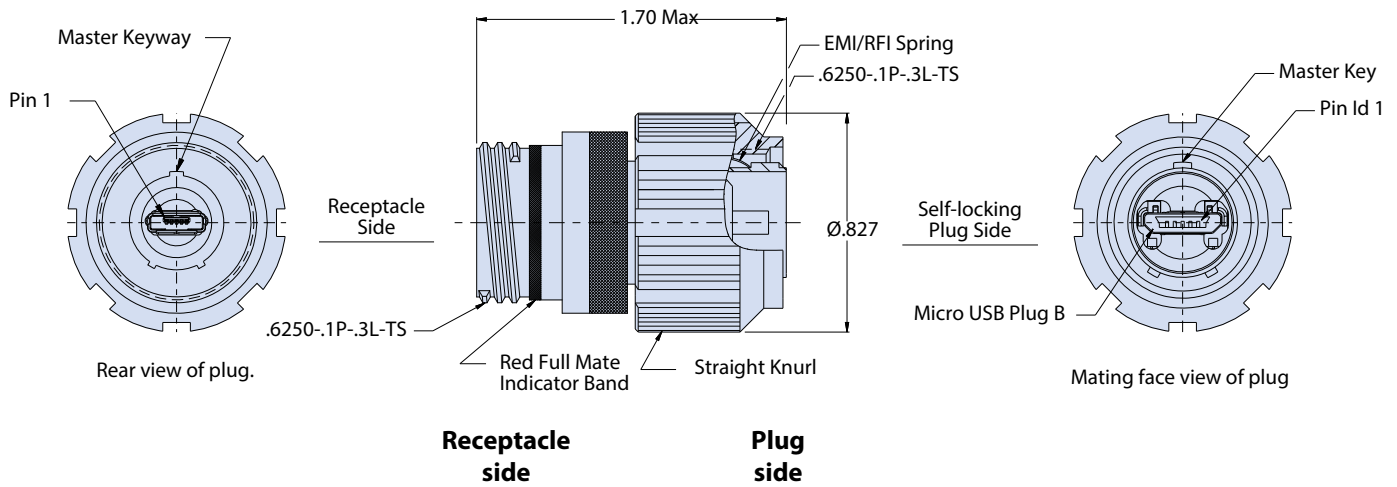
MICRO USB 2.0  
**Series 805 Mighty Mouse**



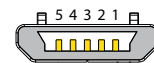
**805-091 Sav-Con® Connector Saver with USB  
 Micro “B” Male Interface to Micro “AB” Female Interface**

How To Order			
Sample Part Number	805-091 -MUSB	-M	A
Series	805-091 = Sav-Con Connector Saver		
Shell Material and Finish <sup>1</sup>	NF = AL/Cadmium, Olive Drab MT = AL/Nickel PTFE	M = AL/Electroless Nickel ZNU = AL/Black Zinc Nickel	
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F		

**805-091 SAV-CON, SHELL SIZE 10<sup>1,2</sup>**



USB Micro AB receptacle (left) mates with USB Micro-B and Micro-A (right) male interfaces.



**NOTES**

1. See Section A for recommended panel cutout, finishes and alternate key/keyway positions.

**SERIES 80**  
MIGHTY MOUSE  
RJ45 ETHERNET

# SUPERSEAL™



The harsh environment, light weight, small form factor field Ethernet connector ideally suited for land forces communications and data networking applications



Field ready ruggedized SuperSeal™ Mighty Mouse connectors with USB 2.0 inserts are available for Series 801 with double start ACME thread, Series 804 push/pull connectors, and Series 805 with triple-start ACME thread. All three Series meet IP67 requirements in the open-face condition and are in-line shielded. Mounting styles include In-line, front or rear panel mount square flange with or without clinch nuts, jam-nut and plug connectors. Connectors are offered with RJ45 CAT 5e interfaces and support current ethernet protocols. RJ45 offers separate orientation options in addition to standard Mighty Mouse® keyway position offerings to provide greater control and convenience over the connector engagement. Connectors are available with size #23 crimp contacts, solder cup termination, PC tail termination, pin/socket contacts or Quadrax contact to standard RJ45 interface. Rear accessory options include accessory thread, integrated shrink boot adapter or integrated banding platform.



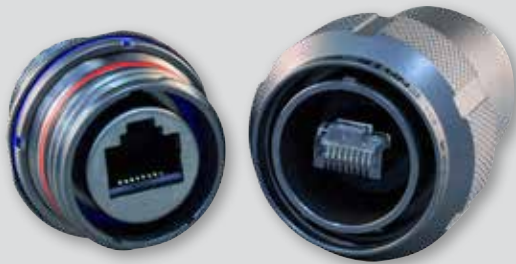
Glenair, Inc.  
1211 Air Way  
Glendale, CA 91201-2497  
818-247-6000  
sales@glenair.com  
www.glenair.com



RJ45 CAT 5E ETHERNET COMPATIBLE  
**Series 801, 804 and 805 Mighty Mouse**  
 Product Selection Guide



**Series 801**  
 Double-Start Threaded  
 Mighty Mouse Shell



**801-300** Page K-2  
 SuperSeal™ Double-Start Coupler with Accessory Options and RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug).

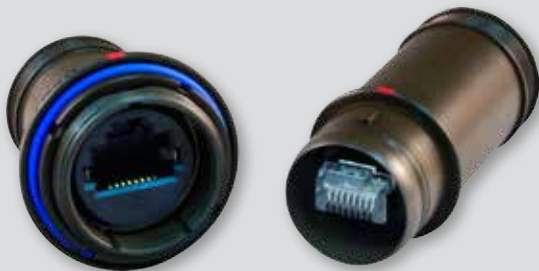
**801-301** Page K-4  
 SuperSeal™ Double-Start Connector with Accessory Options and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.

**801-302 and 801-303** Page K-6  
 SuperSeal™ Double-Start Receptacle with RJ45 Jack to PC Tail or Solder Cup Termination.

**801-304** Page K-8  
 SuperSeal™ Double-Start Receptacle Adapter with Accessory Options and Pin/Socket Contacts to RJ45 Jack.

**801-305** Page K-10  
 SuperSeal™ Double-Start Receptacle Adapter with Accessory Options and Quadrax Contacts to RJ45 Jack.

**Series 804**  
 Push/Pull  
 Mighty Mouse Shell



**804-300** Page K-12  
 SuperSeal™ Push/Pull Coupler with Accessory Options and RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug).

**804-301** Page K-14  
 SuperSeal™ Push/Pull Connector with Accessory Options and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.

**804-302 and 804-303** Page K-16  
 SuperSeal™ Push/Pull Receptacle with RJ45 Jack-to-PC Tail or Solder Cup Termination.

**804-305** Page K-18  
 SuperSeal™ Push/Pull Receptacle Adapter with Accessory Options and Quadrax Contacts to RJ45 Jack.

**Series 805**  
 Triple-Start Threaded  
 Mighty Mouse Shell



**805-300** Page K-20  
 SuperSeal™ Triple-Start Coupler with Accessory Options and RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug) .

**805-301** Page K-22  
 SuperSeal™ Triple-Start Connector with Accessory Options and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.

**805-302** Page K-24  
 SuperSeal™ Triple-Start Receptacle with RJ45 Jack to PC Tail Termination.

**805-303** Page K-26  
 SuperSeal™ Triple-Start Receptacle with RJ45 Jack to Solder Cup Termination.





# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



## 801-300 Double-Start Coupler with RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)

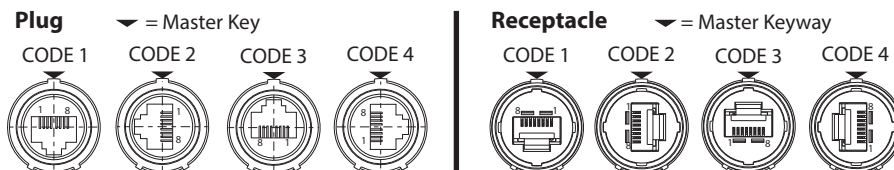
Series 801 Double Start

How To Order	
<b>Sample Part Number</b>	<b>801-300 - NF 07 G 17 5H A 1</b>
<b>Series</b>	<b>801-300</b> = plug (plug) or jack (receptacle) to jack
<b>Rear Accessory Option</b>	- = Accessory Thread and Teeth S = Integral Banding Platform B = Integral Boot Adapter
<b>Material and Finish<sup>1</sup></b>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	01 = In Line Receptacle 02 = Front or Rear Panel Mount Square Flange Receptacle 07 = Rear Panel Mount Jam Nut Receptacle 26 = Plug
<b>Grounding</b>	- = Inline Shielded    G = Inline Shielded and Grounded to Shell, Receptacle Only <sup>2</sup>
<b>Shell Size</b>	17 = Shell Size 17    19 = Shell Size 19
<b>RJ45 Category</b>	5H = Cat 5E    For Cat 6A applications consult factory
<b>Alternate Key Positions<sup>1</sup></b>	A, B, C, D, E, F
<b>RJ45 Orientation</b>	1, 2, 3, 4

### NOTES

- See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
- G option is inline shielded and grounded to shell, receptacle only
- Meets IP67 sealing requirement in unmated condition

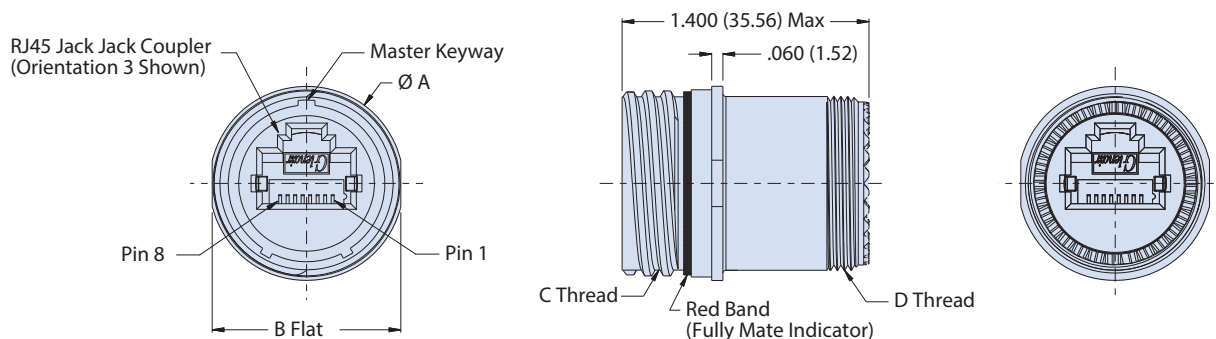
### RJ45 ORIENTATION OPTIONS



### Receptacle Dimensions

Shell Size	Ø A		B Flat		C Threads	D Threads	Ø E		F SQ		G BSC		Ø J		K Flat		M Threads	Ø N	
	in	mm	in	mm			in	mm	in	mm	in	mm	in	mm	in	mm		in	mm
17	1.110	28.19	1.070	27.18	1.0625-.1P-.2L-DS-2A	.9375-20 UNEF-2A	1.700	43.18	1.280	32.51	1.060	26.92	1.325	33.66	1.290	32.77	1.1250-28 UN-2A	0.850	21.59
19	1.243	31.57	1.191	30.25	1.1875-.1P-.2L-DS-2A	1.0625-18 UNEF-2A	1.900	48.26	1.432	36.37	1.191	30.25	1.450	36.83	1.415	35.94	1.2500-28 UN-2A	1.003	25.48

### SHELL STYLE 01 INLINE RECEPTACLE





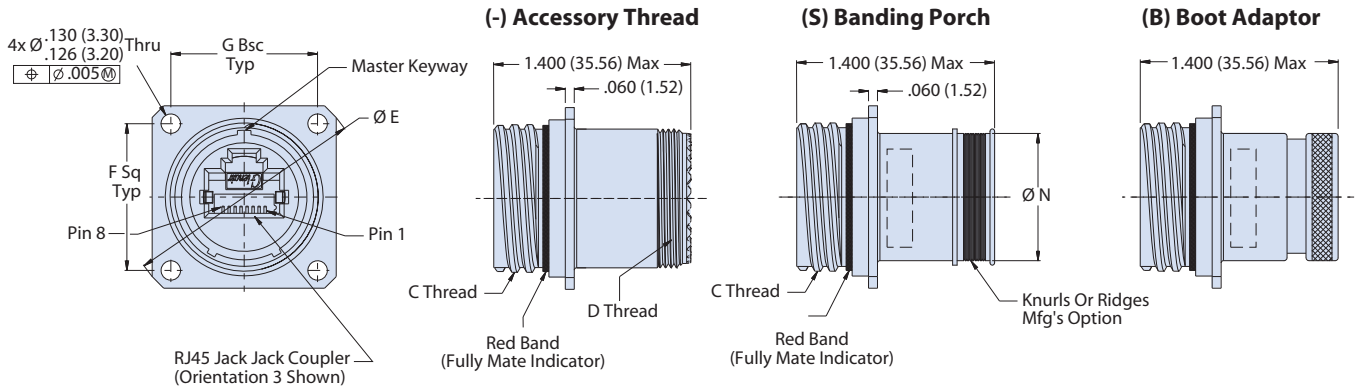


RJ45 CAT 5E ETHERNET COMPATIBLE  
**Series 801, 804 and 805 Mighty Mouse**  
 801-300 Double-Start Coupler with RJ45  
 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)

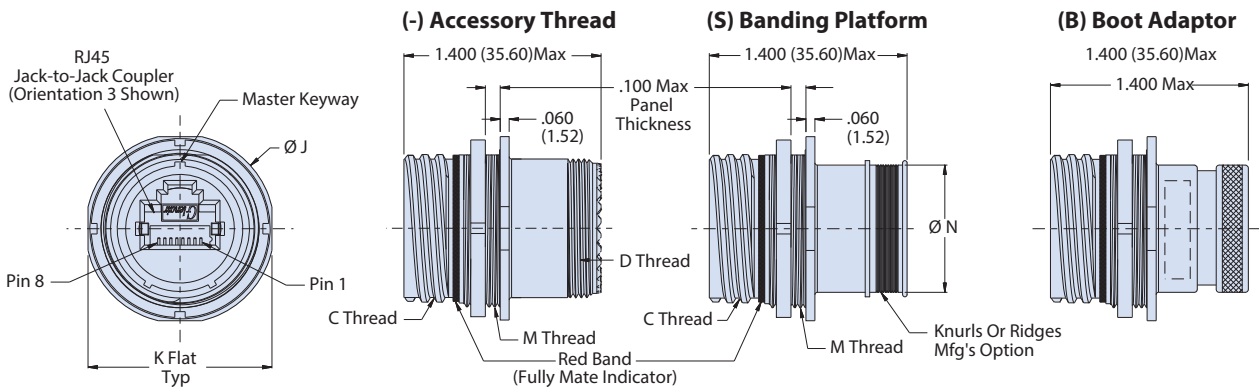


Series 801 Double Start

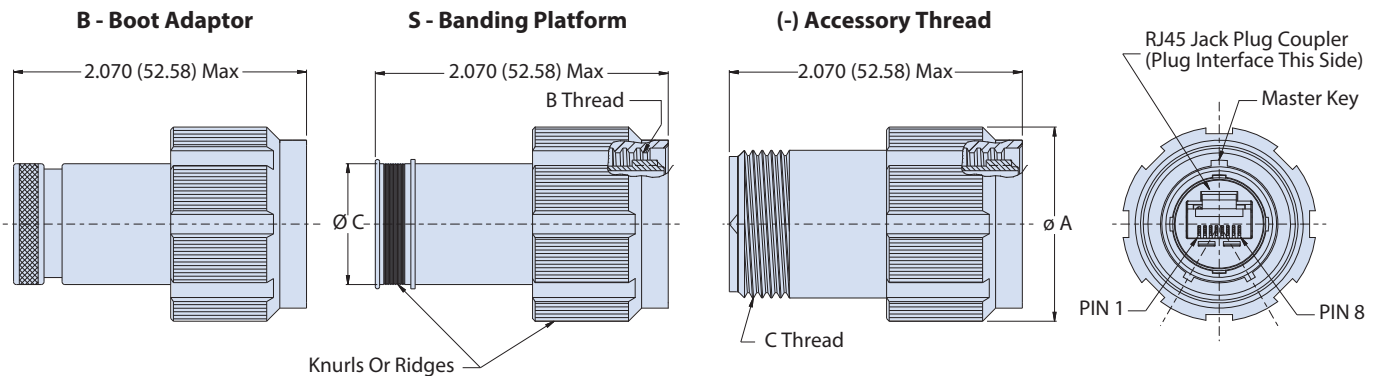
**SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE**



**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**



**SHELL STYLE 26 PLUG**



Plug Dimensions			
Shell Size	Ø A	B Threads	C Threads
17	1.450 (36.83)	1.0625-.1P-.2L-DS-2B	.9375-20 UNEF-2A
19	1.500 (38.1)	1.0625-.1P-.2L-DS-2B	1.0625-18 UNEF-2A

K



# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse

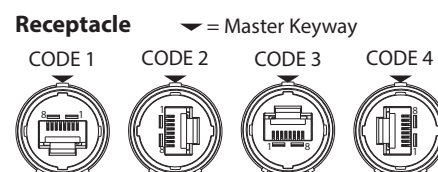
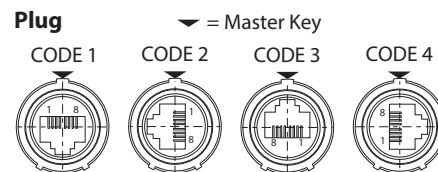


## 801-301 Double-Start Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

Series 801 Double Start

How To Order	
<b>Sample Part Number</b>	<b>801-301 - NF 07 G 19 5H A 1</b>
<b>Series</b>	<b>801-301</b>
<b>Rear Accessory Option</b>	- = Accessory Thread and Teeth B = Integral Boot Adapter S = Integral Banding Platform
<b>Material and Finish<sup>1</sup></b>	NF = Al/Cadmium, Olive Drab M = Al/Electroless Nickel MT = Al/Nickel PTFE ZNU = Al/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	01 = In Line Receptacle 02 = Front or Rear Panel Mount Square Flange Receptacle 07 = Rear Panel Mount Jam Nut Receptacle 26 = Plug
<b>Grounding<sup>2</sup></b>	- = Inline Shielded G = Shielded and grounded to shell
<b>Shell Size</b>	17 = Shell Size 17 19 = Shell Size 19
<b>RJ45 Category</b>	5H = Cat 5E For Cat 6A applications consult factory
<b>Alternate Key Positions<sup>1</sup></b>	A, B, C, D, E, F
<b>RJ45 Orientation</b>	1, 2, 3, 4

### RJ45 ORIENTATION OPTIONS



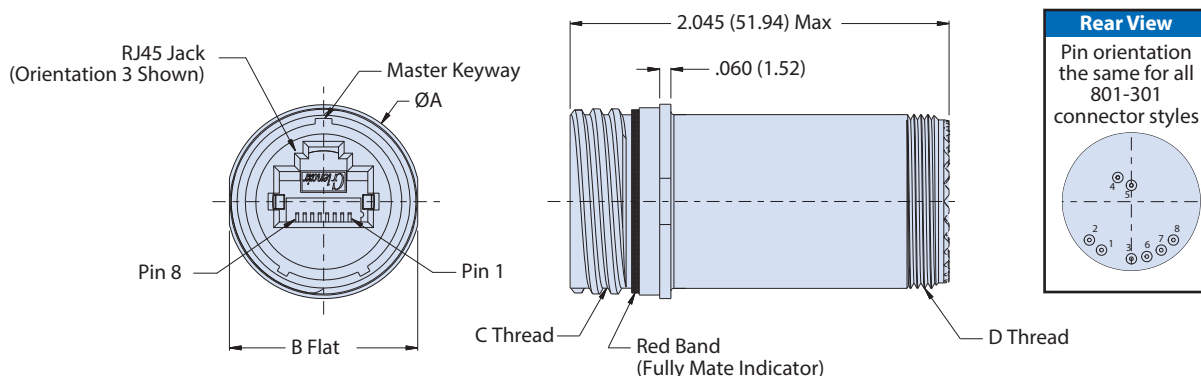
### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. G option is inline shielded and grounded to shell, receptacle only
3. Meets IP67 sealing requirement in unmated condition
4. Supplied with size 23 socket contacts (809-002 supplied loose) 1 extra contact provided

### Receptacle Dimensions

Shell Size	Ø A		B Flat		C Threads	D Threads	Ø E		F SQ		G BSC		Ø J		K Flat		Ø N		
	in	mm	in	mm			in	mm	in	mm	in	mm	in	mm	in	mm	M Threads	in	mm
17	1.110	28.19	1.070	27.18	1.0625-.1P-.2L-DS-2A	.9375-20 UNEF-2A	1.700	43.18	1.280	32.51	1.060	26.92	1.325	33.66	1.290	32.77	1.1250-28 UN-2A	0.850	21.59
19	1.243	31.57	1.191	30.25	1.1875-.1P-.2L-DS-2A	1.0625-18 UNEF-2A	1.900	48.26	1.432	36.37	1.191	30.25	1.450	36.83	1.415	35.94	1.2500-28 UN-2A	1.003	25.48

### SHELL STYLE 01 IN-LINE RECEPTACLE





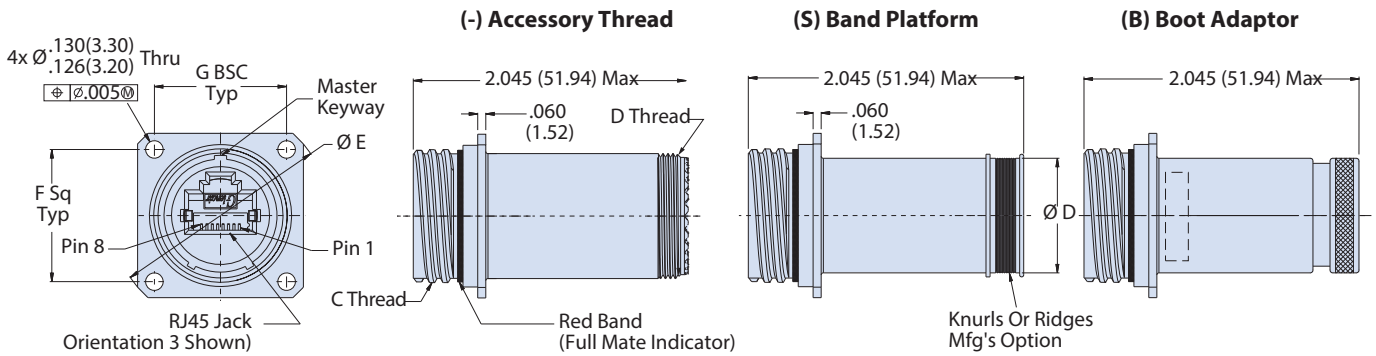
# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



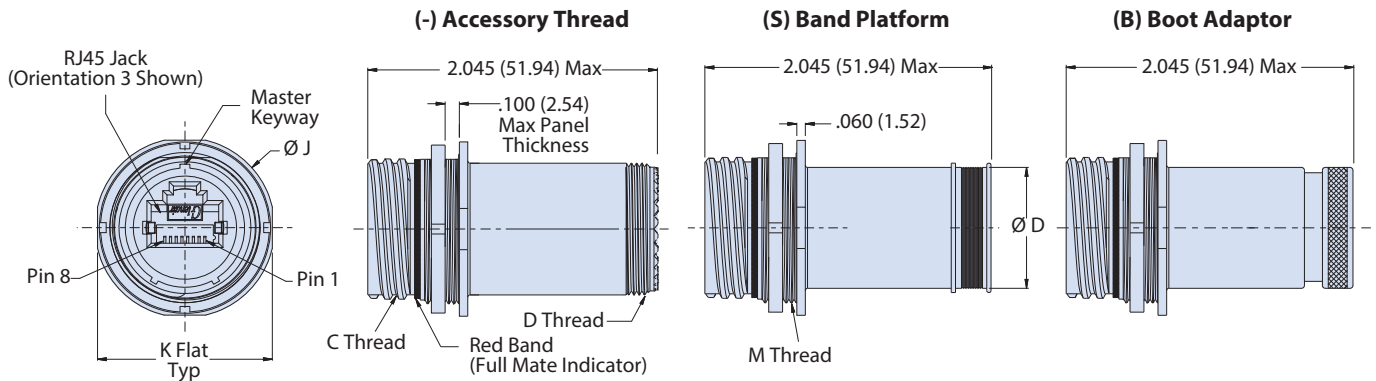
## 801-301 Double-Start Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

Series 801 Double Start

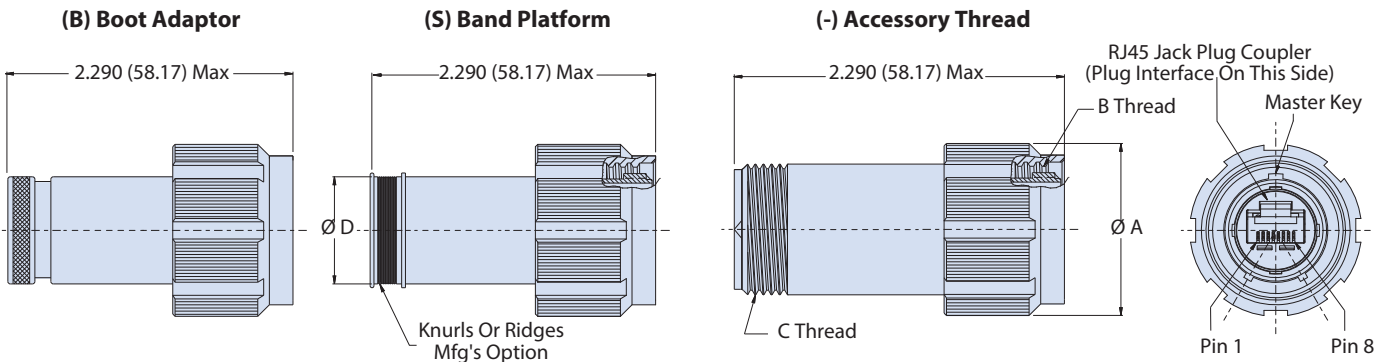
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE



### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE



### SHELL STYLE 26 PLUG



Plug Dimensions			
Shell Size	Ø A	B Threads	Ø C
17	1.450 (36.83)	1.0625-1P-.2L-DS-2B	.850 (21.59)
19	1.560 (39.62)	1.1875-1P-.2L-DS-2B	1.003 (25.48)

K



# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



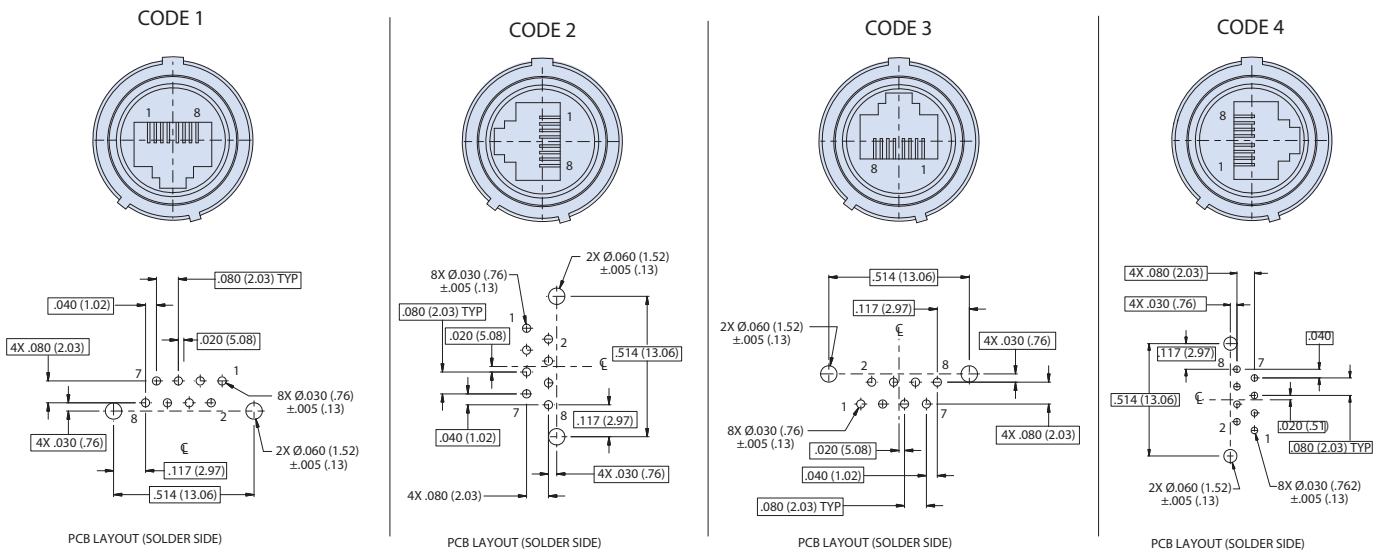
## 801-302 or 801-303 Double-Start Receptacle with RJ45 Jack to PC Tail or Solder Cup Termination

Series 801 Double Start

How To Order								
<b>Sample Part Number</b>	<b>801-302</b>	<b>NF</b>	<b>07</b>	<b>-</b>	<b>17</b>	<b>5H</b>	<b>A</b>	<b>1</b>
<b>Series</b>	<b>801-302</b> = PC Tail <b>801-303</b> = Solder Cup							
<b>Material and Finish<sup>1</sup></b>	<b>NF</b> = Aluminum/Cadmium, Olive Drab <b>M</b> = Aluminum/Electroless Nickel <b>MT</b> = Aluminum/Nickel PTFE <b>ZNU</b> = Aluminum/Black Zinc Nickel							
<b>Shell Style<sup>1</sup></b>	<b>02</b> = Front or Rear, Square Flange Panel Mount Receptacle <b>07</b> = Jam Nut Receptacle, Rear Panel Mount							
<b>Grounding</b>	<b>-</b> = Inline Shielded <b>G</b> = Shielded and grounded to shell For improved 360° shielding performance select shell size 19							
<b>Shell Size</b>	<b>17</b> = Shell Size 17 <b>19</b> = Shell Size 19							
<b>RJ45 Category</b>	<b>5H</b> = Cat 5E                      For Cat 6A applications consult factory							
<b>Aternate Key Positions<sup>1</sup></b>	<b>A, B, C, D, E, F</b>							
<b>RJ45 Orientation</b>	<b>1, 2, 3, 4</b>							

### RJ45 ORIENTATION OPTIONS AND PCB FOOTPRINTS\*

(PARTIAL VIEWS SHOWN)



\*PCB footprints apply to 801-302 PC tail connectors only. Orientation codes apply to 801-302 and 801-303

Receptacle Dimensions																
Shell Size	Ø A		B Flat		C Threads	Ø E		F SQ		G BSC		Ø J		K Flat		M Threads
	in	mm	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm	
17	1.110	28.19	1.070	27.18	1.0625-.1P-.2L-DS-2A	1.700	43.18	1.280	32.51	1.060	26.92	1.325	33.66	1.290	32.77	1.1250-28 UN-2A
19	1.243	31.57	1.191	30.25	1.1875-.1P-.2L-DS-2A	1.900	48.26	1.432	36.37	1.191	30.25	1.450	36.83	1.415	35.94	1.2500-28 UN-2A



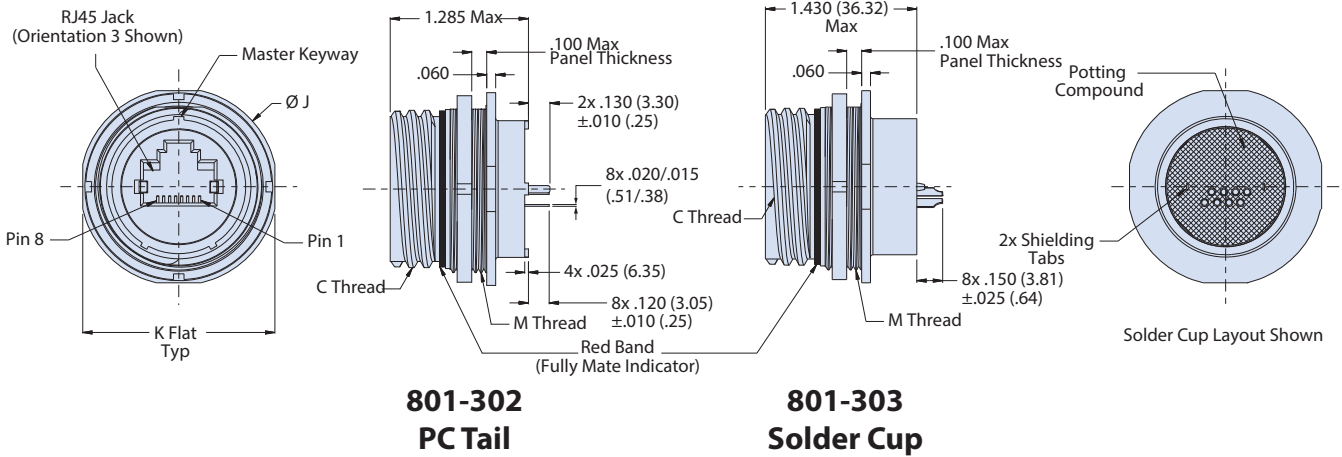
RJ45 CAT 5E ETHERNET COMPATIBLE  
**Series 801, 804 and 805 Mighty Mouse**



**801-302 or 801-303 Double-Start Receptacle with  
 RJ45 Jack to PC Tail or Solder Cup Termination**

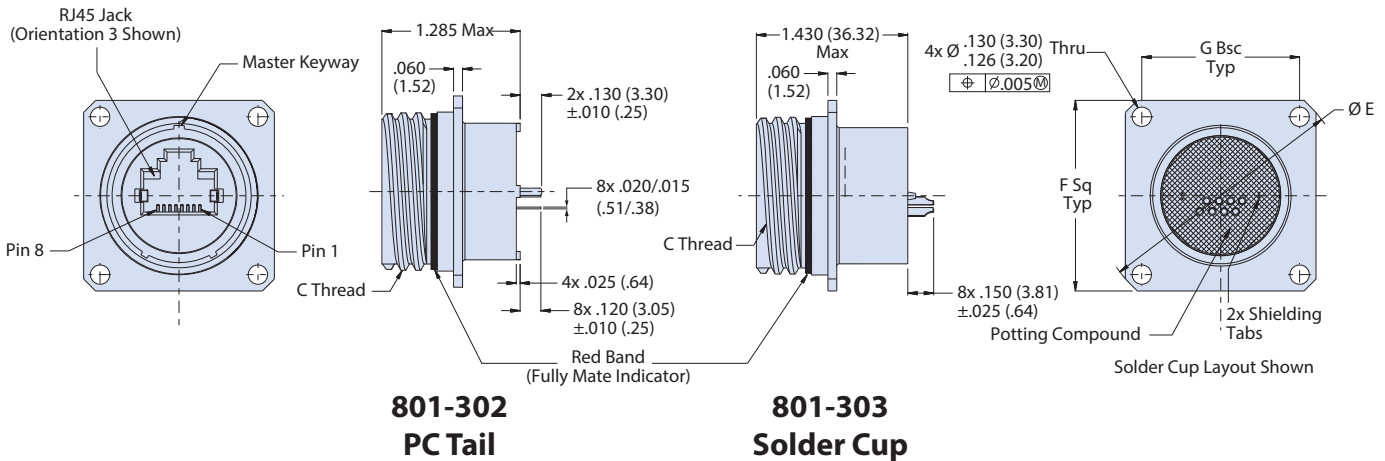
Series 801 Double Start

**SHELL STYLE 07 JAM NUT RECEPTACLE FOR 801-302 PC TAIL AND 801-303 SOLDER CUP**



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**SHELL STYLE 02 SQUARE FLANGE RECEPTACLE FOR 801-302 PC TAIL AND 801-303 SOLDER CUP**



**NOTES**

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Material and Finish
  - Shell, jam nut: al alloy or cres
  - Seal/o-ring: fluorosilicone
  - Sealant: RTV



# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



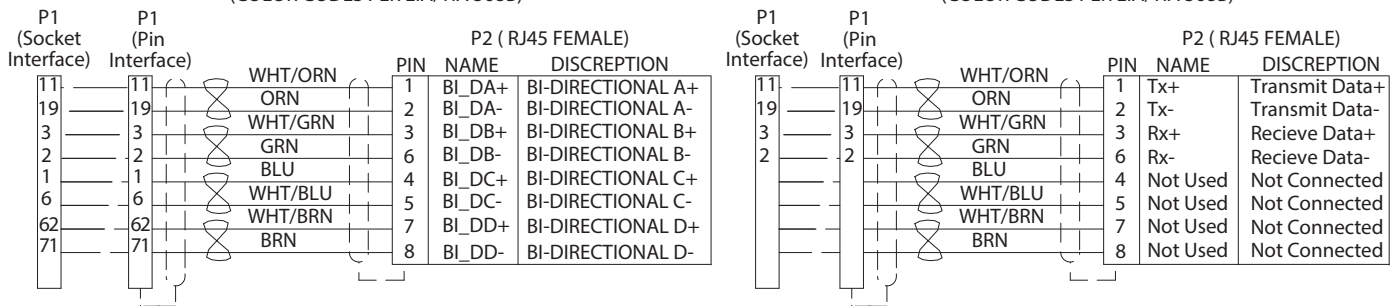
## 801-304 Double-Start Receptacle Adapter with Pin/Socket Contacts to RJ45 Jack

Series 801 Double Start

How To Order	
<b>Sample Part Number</b>	<b>801-304 - NF 07 17 - 85 P 5H A</b>
<b>Series</b>	<b>801-304</b> = Pin/Socket to RJ45 Jack
<b>Rear Accessory Option</b>	- = Accessory Thread and Teeth <b>B</b> = Integral Boot Adapter <b>S</b> = Integral Banding Platform
<b>Material and Finish<sup>1</sup></b>	<b>NF</b> = Aluminum/Cadmium, Olive Drab <b>M</b> = Aluminum/Electroless Nickel <b>MT</b> = Aluminum/Nickel PTFE <b>ZNU</b> = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	<b>01</b> = In Line Receptacle <b>02</b> = Front or Rear Panel Mount Square Flange Receptacle <b>07</b> = Rear Panel Mount Jam Nut Receptacle <b>26</b> = Plug
<b>Shell Size</b>	<b>17</b> = Shell Size 17 <b>19</b> = Shell Size 19
<b>Grounding</b>	- = Inline Shielded <b>G</b> = Shielded and grounded to shell For improved 360° shielding performance select shell size 19
<b>Insert Arrangement<sup>3</sup></b>	<b>85</b> = 17-85 per Mighty Mouse Inserts <b>100</b> = 19-100 per Mighty Mouse Inserts
<b>Contact Style</b>	<b>P</b> = Pin <b>S</b> = Socket
<b>RJ45 Category</b>	<b>5H</b> = Cat 5E    For Cat 6A applications consult factory
<b>Alternate Key Positions<sup>1</sup></b>	<b>A, B, C, D, E, F</b>

WIRING DIAGRAM FOR ETHERNET 1000base-T (Gigabit ethernet)  
(COLOR CODES PER EIA/TIA 568B)

WIRING DIAGRAM FOR ETHERNET 10base-T and 100 base-TX  
(COLOR CODES PER EIA/TIA 568B)



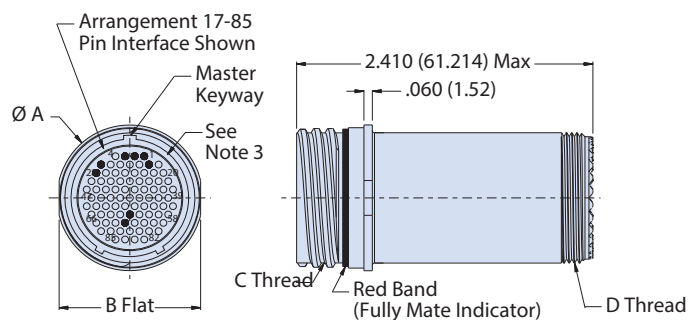
### Receptacle Dimensions

Shell Size	Ø A		B Flat		C Threads	D Threads	Ø E		F SQ		G BSC		Ø J		K Flat		M Threads	Ø N	
	in	mm	in	mm			in	mm	in	mm	in	mm	in	mm	in	mm		in	mm
17	1.110	28.19	1.070	27.18	1.0625-.1P-.2L-DS-2A	.9375-20 UNEF-2A	1.700	43.18	1.280	32.51	1.060	26.92	1.325	33.66	1.290	32.77	1.1250-28 UN-2A	0.850	21.59
19	1.243	31.57	1.191	30.25	1.1875-.1P-.2L-DS-2A	1.0625-18 UNEF-2A	1.900	48.26	1.432	36.37	1.191	30.25	1.450	36.83	1.415	35.94	1.2500-28 UN-2A	1.003	25.48

### NOTES

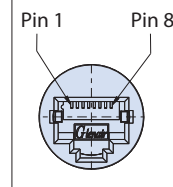
- See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
- Meets IP67 sealing requirement in unmated condition.
- In accordance with Mighty Mouse insert arrangement 17-85 or 19-100 consult factory for other arrangements options.
- Material/Finishes:
  - Shell, jam nut: al alloy or cres
  - seal/o-ring: fluorosilicone

### SHELL STYLE 01 IN-LINE RECEPTACLE



### Rear View

Pin Position is the same for all styles





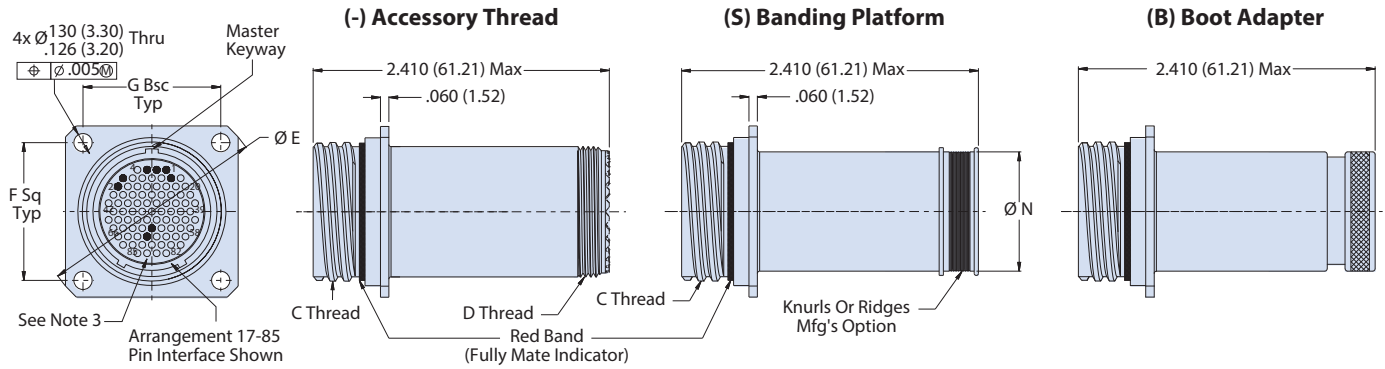
# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



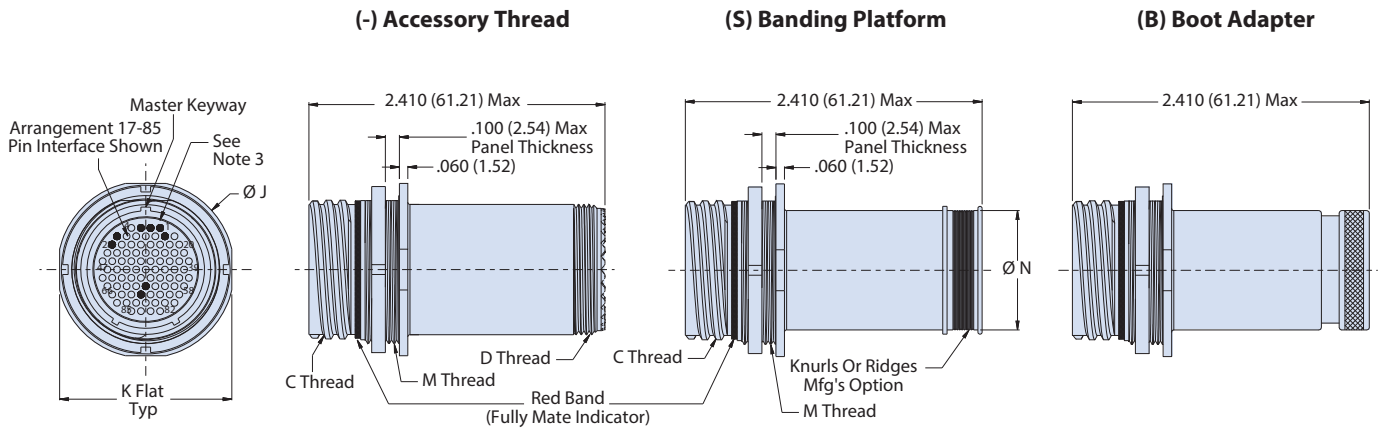
## 801-304 Double-Start Receptacle Adapter with Pin/Socket Contacts to RJ45 Jack

Series 801 Double Start

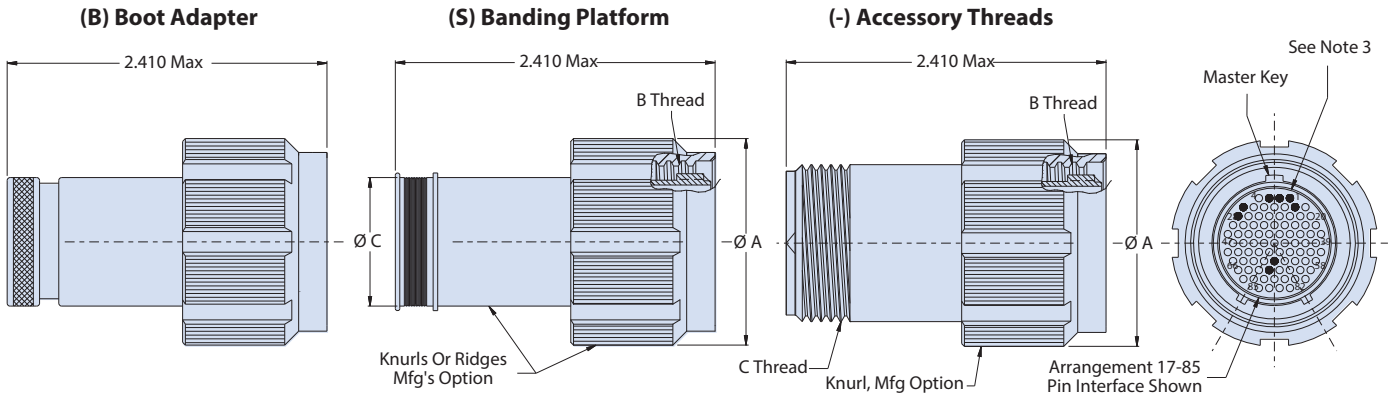
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE



### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE



### SHELL STYLE 26 PLUG



Plug Dimensions			
Shell Size	Ø A	B Threads	C Threads
17	1.450 (36.83)	1.0625-.1P-.2L-DS-2B	.9375-20 UNEF-2A
19	1.560 (39.62)	1.1875-.1P-.2L-DS-2B	1.0625-18 UNEF-2A

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# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



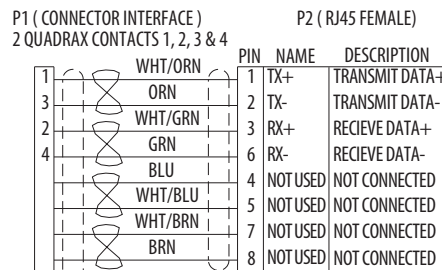
## 801-305 Double-Start Receptacle Adapter with Quadrax Contacts to RJ45 Jack

Series 801 Double Start

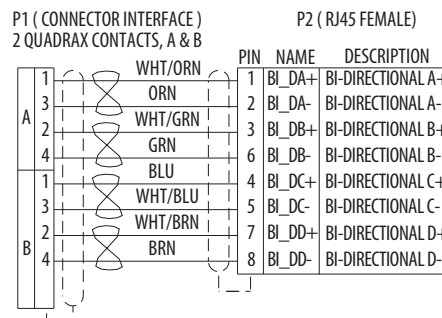
How To Order	
<b>Sample Part Number</b>	<b>801-305 - NF 07 G 17 5H P A</b>
<b>Series</b>	<b>801-305</b> Quadrax to RJ45 Jack
<b>Rear Accessory Option</b>	- = Accessory Thread and Teeth <b>B</b> = Integral Boot Adapter <b>S</b> = Integral Banding Platform
<b>Material and Finish<sup>1</sup></b>	<b>NF</b> = Aluminum/Cadmium, Olive Drab <b>M</b> = Aluminum/Electroless Nickel <b>MT</b> = Aluminum/Nickel PTFE <b>ZNU</b> = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	<b>01</b> = In Line Receptacle <b>26</b> = Plug <b>02</b> = Front or Rear Panel Mount Square Flange Receptacle <b>07</b> = Rear Panel Mount Jam Nut Receptacle
<b>Grounding</b>	- = Inline Shielded <b>G</b> = Shielded and grounded to shell For improved 360° shielding performance select shell size 19
<b>Shell Size</b>	<b>17</b> = Shell Size 17 <b>19</b> = Shell Size 19
<b>RJ45 Category</b>	<b>5H</b> = Cat 5E; For Cat 6A applications consult factory
<b>Contact Style<sup>3</sup></b>	<b>P</b> = Pin <b>S</b> = Socket
<b>Alternate Key Positions<sup>1</sup></b>	<b>A, B, C, D, E, F</b>

### WIRING DIAGRAMS

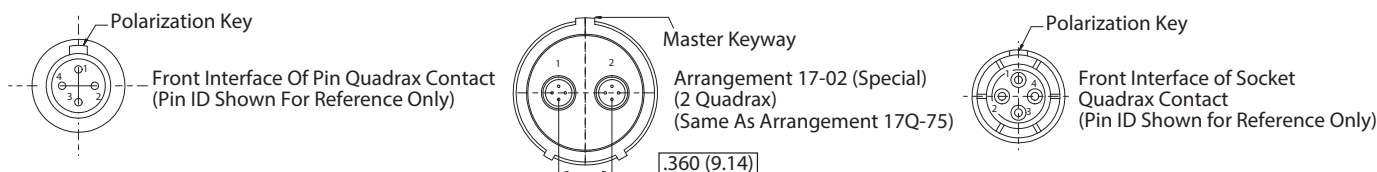
FOR ETHERNET 10base-T & 100 base-TX  
(COLOR CODES PER EIA/TIA 568B)



FOR ETHERNET 1000base-T (Gigabit ethernet)  
(COLOR CODES PER EIA/TIA 568B)



### PARTIAL VIEW OF CONNECTOR QUADRAX INTERFACE

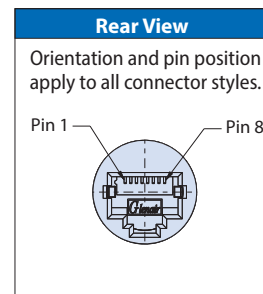
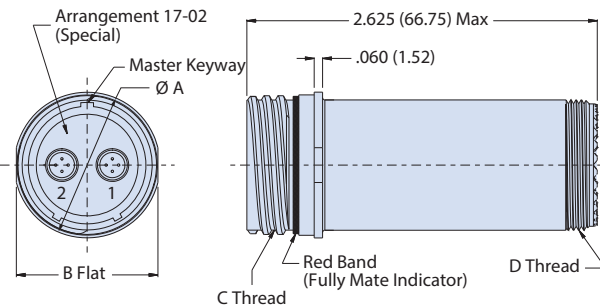


Shell Size	Ø A		B Flat		C Threads	D Threads	Ø E		F SQ		G BSC		Ø J		K Flat		M Threads	Ø N	
	in	mm	in	mm			in	mm	in	mm	in	mm	in	mm	in	mm		in	mm
17	1.110	28.19	1.070	27.18	1.0625-.1P-.2L-DS-2A	.9375-20 UNEF-2A	1.700	43.18	1.280	32.51	1.060	26.92	1.325	33.66	1.290	32.77	1.1250-28 UN-2A	0.850	21.59
19	1.243	31.57	1.191	30.25	1.1875-.1P-.2L-DS-2A	1.0625-18 UNEF-2A	1.900	48.26	1.432	36.37	1.191	30.25	1.450	36.83	1.415	35.94	1.2500-28 UN-2A	1.003	25.48

### NOTES

- See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
- Meets IP67 sealing requirement in unmated condition.
- Pin contact shall mate with Glenair socket contact P/N 854-002-XX. Socket contact shall mate with Glenair pin contact P/N 854-001-XX. Contact factory for more information.

### SHELL STYLE 01 IN-LINE RECEPTACLE







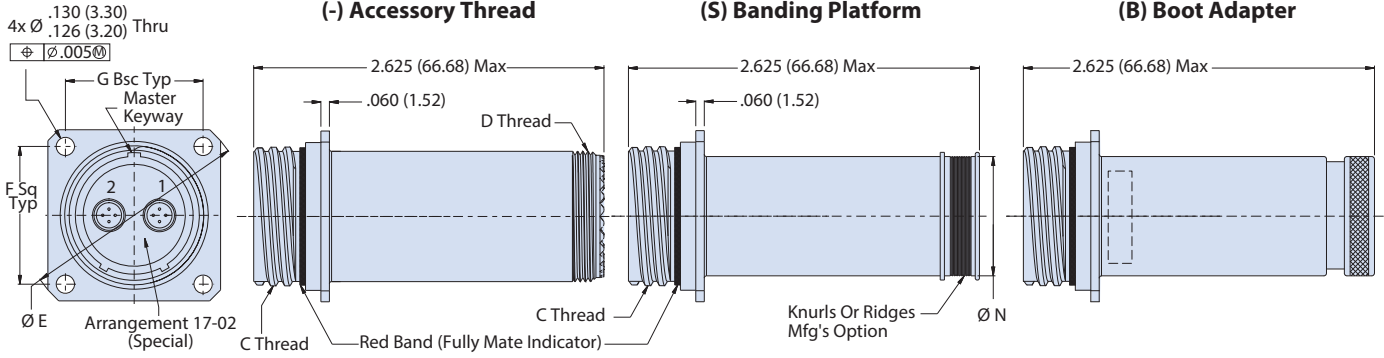
# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



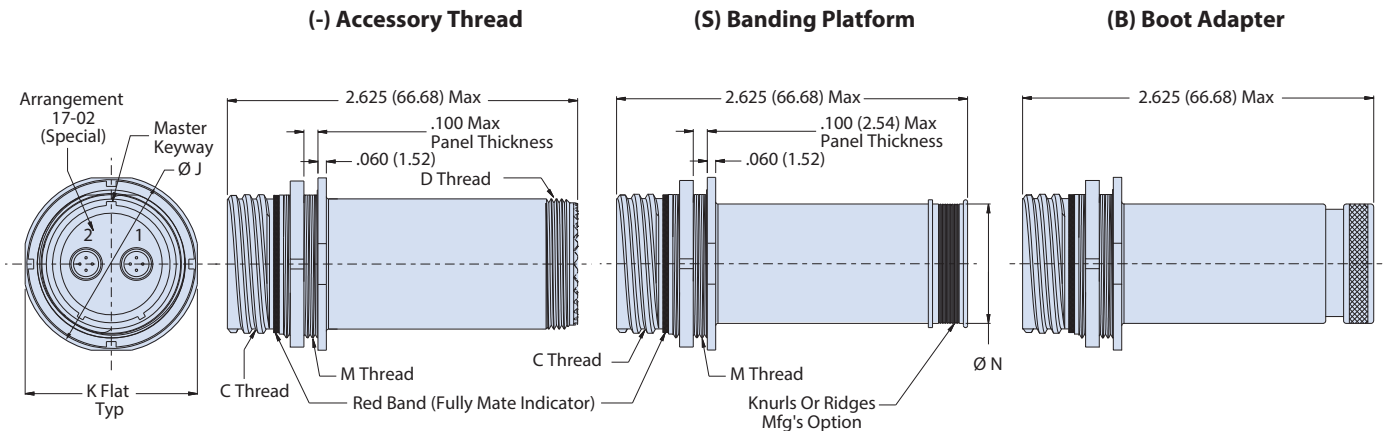
## 801-305 Double-Start Receptacle Adapter with Quadrx Contacts to RJ45 Jack

Series 801 Double Start

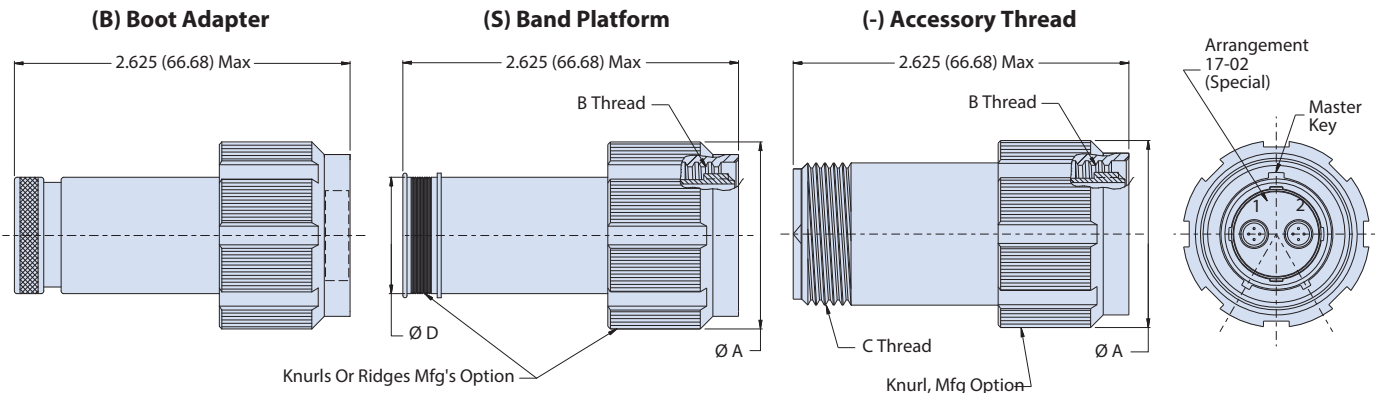
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE



### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE



### SHELL STYLE 26 PLUG



Plug Dimensions				
Shell Size	Ø A	B Threads	C Threads	Ø D
17	1.450 (36.83)	1.0625-.1P-.2L-DS-2B	.9375-20 UNEF-2A	.850 (21.59)
19	1.560 (39.62)	1.1875-.1P-.2L-DS-2B	1.0625-18 UNEF-2A	1.003 (25.48)

K



# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



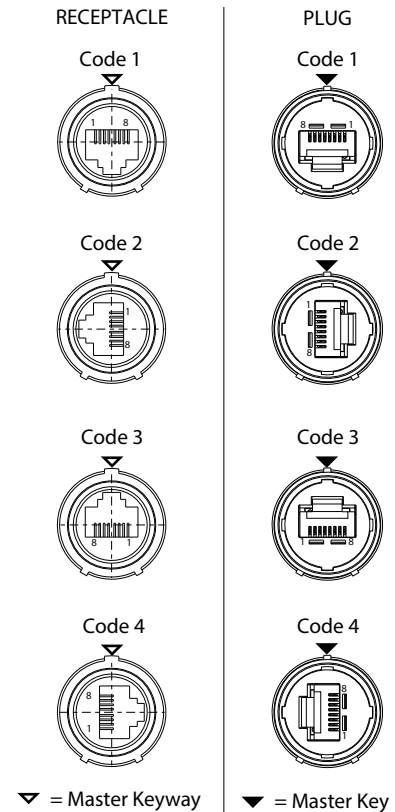
## 804-300 Push/Pull Coupler with RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)

Series 804 Push/Pull

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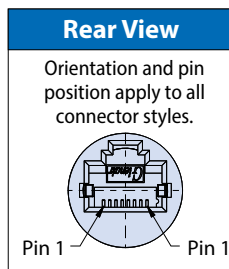
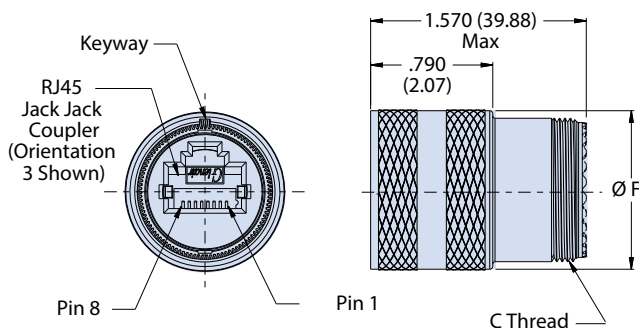
How To Order	
<b>Sample Part Number</b>	<b>804-300 - NF 07 G 16 5H A 1</b>
<b>Series</b>	<b>804-300</b>
<b>Rear Accessory Option</b>	- = Accessory Thread and Teeth B = Integral Boot Adapter S = Integral Banding Platform
<b>Material and Finish<sup>1</sup></b>	NF = Al/Cadmium, Olive Drab M = Al/Electroless Nickel MT = Al/Nickel PTFE ZNU = Al/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	01 = In Line Receptacle 00 = Jam Nut Receptacle, Front Panel Mount 07 = Jam Nut Receptacle, Rear Panel Mount 16 = Plug
<b>Grounding<sup>4</sup></b>	- = Inline Shielded G = Shielded and grounded to shell For improved 360° shielding performance select shell size 16
<b>Shell Size</b>	15 = Shell Size 15      16 = Shell Size 16
<b>RJ45 Category</b>	5H = Cat 5E      For Cat 6A applications consult factory
<b>Alternate Key Positions<sup>1</sup></b>	A, B, C, D, E, F; Omit for single keyway (non polarized)
<b>RJ45 Orientation</b>	1, 2, 3, 4

### RJ45 ORIENTATION OPTIONS



Receptacle Dimensions								
Size Shell	Mounting Style	Ø A	B Threads	C Threads	Ø D	Ø E	Ø F	K Threads
15	Front Mount	--	--	.9375-20 UNEF-2A	1.450 (35.31)	.850 (21.59)	1.060 (26.92)	1.125-28 UN-2A
	Rear Mount	1.390 (35.31)	1.0625-20 UN-2A		--			--
16	Front Mount	--	--	1.000-20 UNEF-2A	1.502 (38.15)	.902 (22.91)	1.188 (30.18)	1.1875-28 UN-2A
	Rear Mount	1.425 (36.20)	1.250-28 UN-2A		--			--

### SHELL STYLE 01 IN-LINE RECEPTACLE



### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Receptacles are JACK-JACK and plugs are PLUG-JACK configurations
4. Size 15 uses only rear shielding sleeve. Size 16 uses front and back shielding sleeves



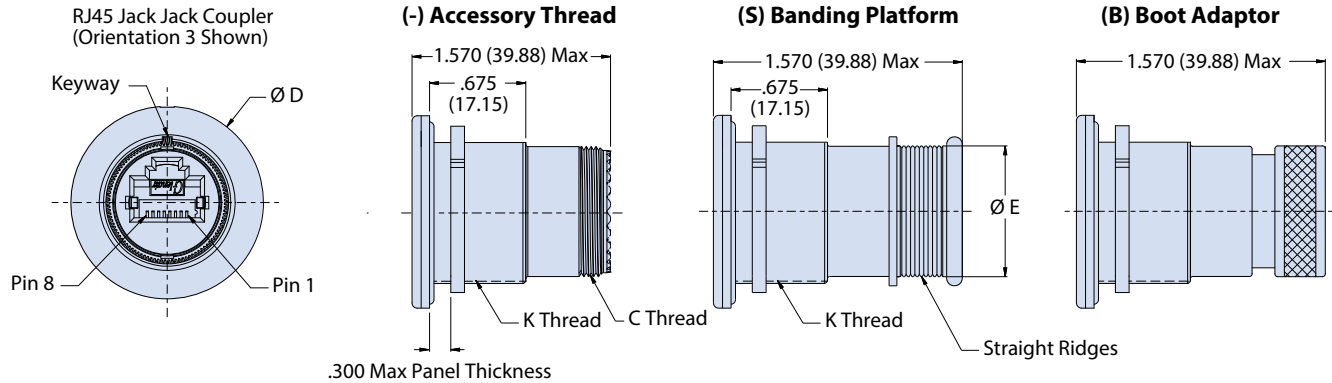
RJ45 CAT 5E ETHERNET COMPATIBLE  
**Series 801, 804 and 805 Mighty Mouse**  
 804-300 Push/Pull Coupler with  
 RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)



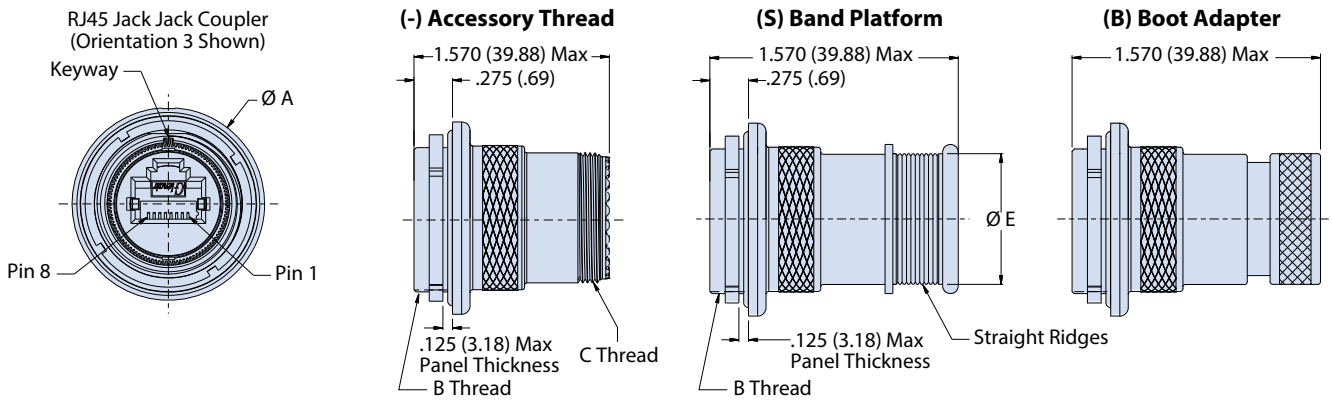
Series 804 Push/Pull

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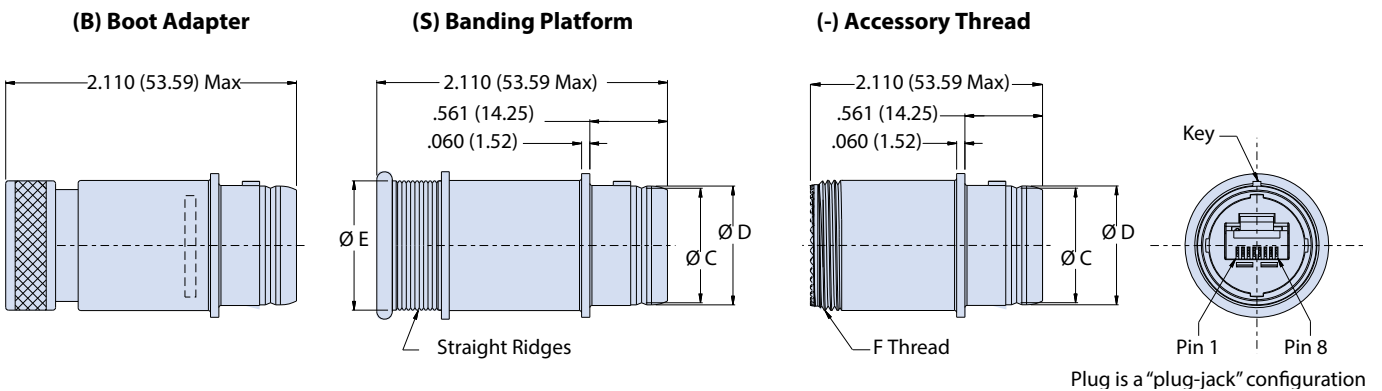
**SHELL STYLE 00 FRONT PANEL MOUNT JAM NUT RECEPTACLE**



**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**



**SHELL STYLE 16 PLUG**



Plug Dimensions					
Size Shell	Ø A Max	Ø C	Ø D	Ø E	F Thread
15	1.045 (26.54)	.828 (21.03)	.860 (21.84)	.850 (21.59)	.9375-20 UNEF-2A
16	1.095 (27.81)	.878 (21.30)	.910 (23.11)	.902 (22.91)	1.0000-20 UNEF-2A



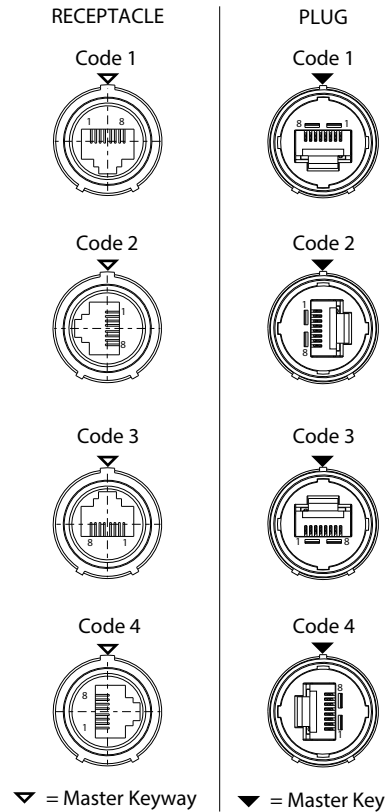
# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



## 804-301 Push/Pull RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

Series 804 Push/Pull

### RJ45 ORIENTATION OPTIONS

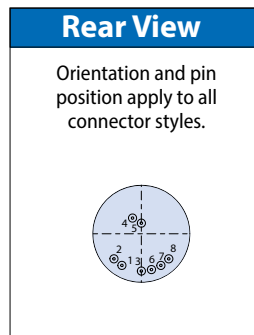
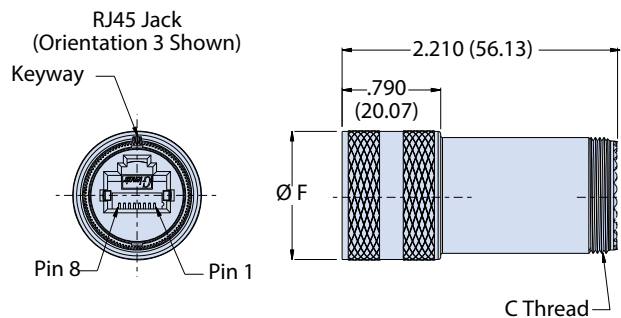


How To Order	
Sample Part Number	804-301 - NF 07 G 16 5H A 1
Series	804-301
Rear Accessory Option	- = Accessory Thread and Teeth B = Integral Boot Adapter S = Integral Banding Platform
Material and Finish <sup>1</sup>	NF = Al/Cadmium, Olive Drab M = Al/Electroless Nickel MT = Al/Nickel PTFE ZNU = Al/Black Zinc Nickel
Shell Style <sup>1</sup>	01 = In Line Receptacle 00 = Jam Nut Receptacle, Front Panel Mount 07 = Jam Nut Receptacle, Rear Panel Mount 16 = Plug
Grounding	- = Inline Shielded G = Shielded and grounded to shell For improved 360° shielding performance select shell size 16
Shell Size	15 = Shell Size 15      16 = Shell Size 16
RJ45 Category	5H = Cat 5E      For Cat 6A applications consult factory
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F; Omit for single keyway (non polarized)
RJ45 Orientation	1, 2, 3, 4

K

Receptacle Dimensions								
Size Shell	Mounting Style	Ø A	B Threads	C Threads	Ø D	Ø E	Ø F	K Threads
15	Front Mount	--	--	.9375-20 UNEF-2A	1.450 (35.31)	.850 (21.59)	1.060 (26.92)	1.125-28 UN-2A
	Rear Mount	1.390 (35.31)	1.0625-20 UN-2A		--			--
16	Front Mount	--	--	1.000-20 UNEF-2A	1.502 (38.15)	.902 (22.91)	1.188 (30.18)	1.1875-28 UN-2A
	Rear Mount	1.425 (36.20)	1.250-28 UN-2A		--			--

### SHELL STYLE 01 IN-LINE RECEPTACLE



### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Supplied with size 23 crimp socket contacts (809-002 supplied loose)



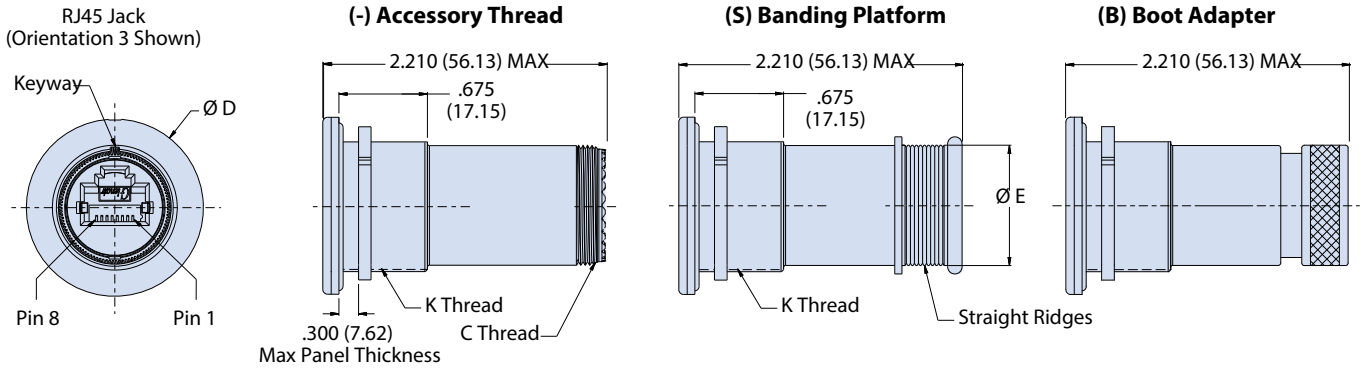
RJ45 CAT 5E ETHERNET COMPATIBLE  
**Series 801, 804 and 805 Mighty Mouse**  
 804-301 Push/Pull RJ45 Plug (Plug) or Jack  
 (Receptacle) to Crimp Removable Contacts



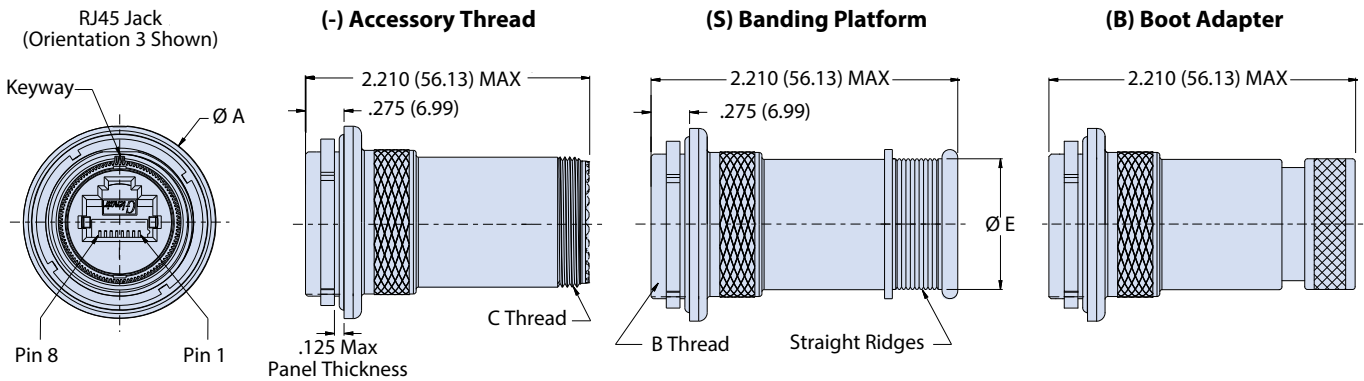
Series 804 Push/Pull

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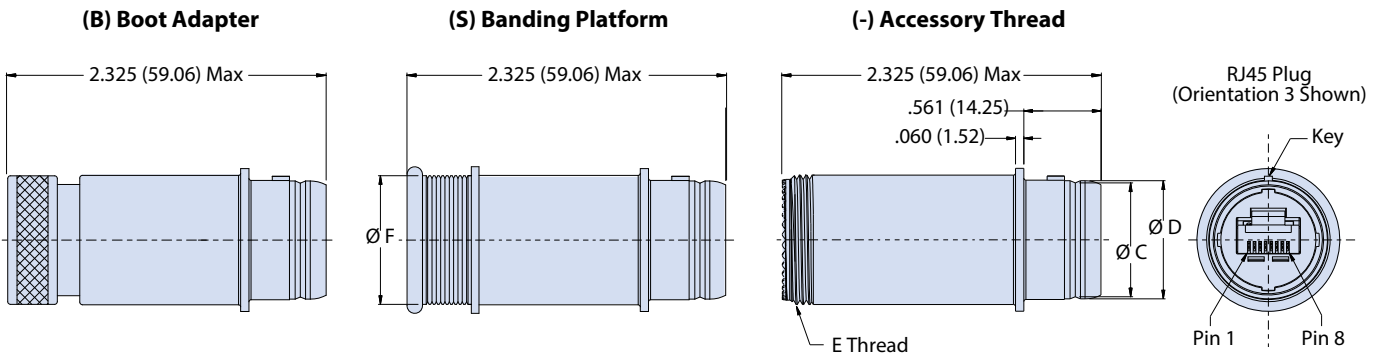
**SHELL STYLE 00 FRONT PANEL MOUNT JAM NUT RECEPTACLE**



**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**



**SHELL STYLE 16 PLUG**



Plug Dimensions					
Shell Size	Ø A	Ø C	Ø D	E Threads	Ø F
15	1.045 (26.54)	.828 (21.03)	.860 (21.84)	.9375-20 UNEF-2A	.850 (26.92)
16	1.095 (27.81)	.878 (22.30)	.910 (23.11)	1.0000-20 UNEF-2A	.902 (22.91)



# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



## 804-302 or 804-303 Push/Pull Receptacle with RJ45 Jack-to-PC Tail or Solder Cup Termination

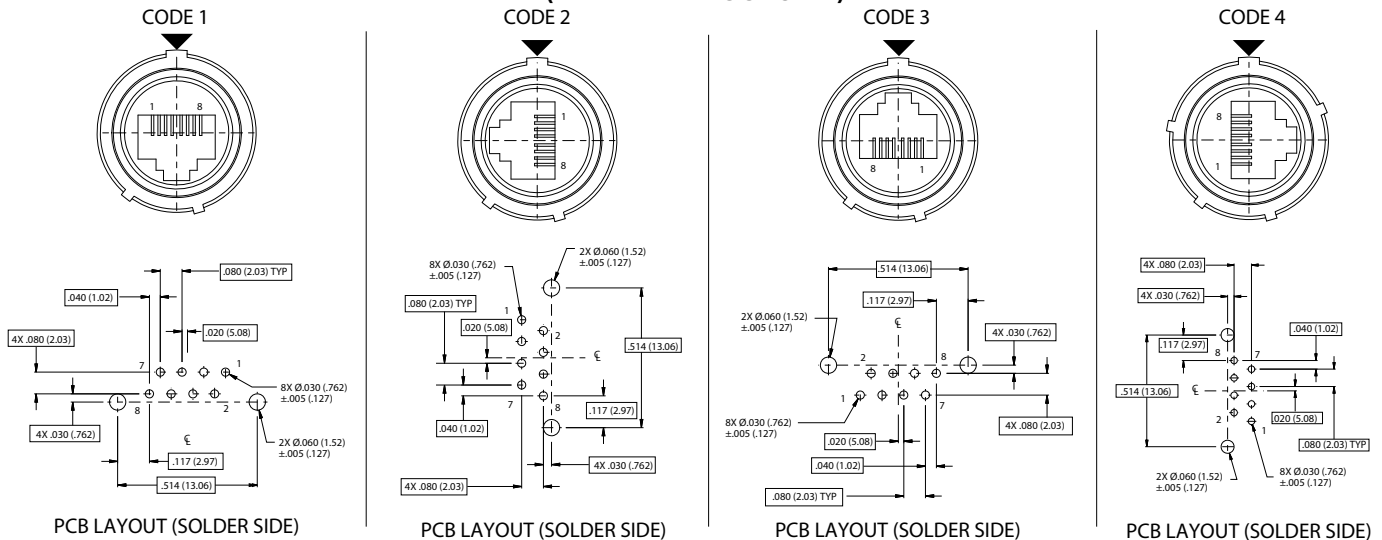
Series 804 Push/Pull

How To Order	
<b>Sample Part Number</b>	<b>804-302</b> <b>NF</b> <b>07</b> - <b>15</b> <b>5H</b> <b>A</b> <b>1</b>
<b>Series</b>	<b>804-302</b> = PC Tail <b>804-303</b> = Solder Cup
<b>Material and Finish<sup>1</sup></b>	<b>NF</b> = Aluminum/Cadmium, Olive Drab <b>M</b> = Aluminum/Electroless Nickel <b>MT</b> = Aluminum/Nickel PTFE <b>ZNU</b> = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	<b>07</b> = Rear Panel Mount Jam Nut Receptacle <b>00</b> = Front Panel Mount Jam Nut Receptacle
<b>Shielding</b>	- = Inline Shielded <b>G</b> = Shielded and grounded to shell For improved 360° shielding performance select shell size 16
<b>Shell Size</b>	<b>15</b> = Shell Size 15 <b>16</b> = Shell Size 16
<b>RJ45 Category</b>	<b>5H</b> = Cat 5E      For Cat 6A applications consult factory
<b>Aternate Key Positions<sup>1</sup></b>	<b>A, B, C, D, E, F</b> ; Omit for single keyway (non-polarized)
<b>RJ45 Orientation</b>	<b>1, 2, 3, 4</b>

Receptacle Dimensions								
Shell Size	Mounting Style	Ø A		B Threads	Ø D		K Threads	C Threads
		In	mm		In	mm		
15	FRONT MOUNT	-	-	-	1.450	36.83	1.125-28 UN-2A	.9375-20 UNEF-2A
	REAR MOUNT	1.390	35.306	1.0625-20 UN-2A	-	-	-	.9375-20 UNEF-2A
16	FRONT MOUNT	-	-	-	1.502	38.1508	1.1875-28 UN-2A	1.000-20 UNEF-2A
	REAR MOUNT	1.425	36.195	1.250-28 UN-2A	-	-	-	1.000-20 UNEF-2A

### RJ45 RECEPTACLE ORIENTATION OPTIONS AND PCB FOOTPRINT

(PARTIAL VIEWS SHOWN)



▼ = Master Keyway

**PCB layout applies to 804-302 only, orientations codes for 804-302 and 804-303**



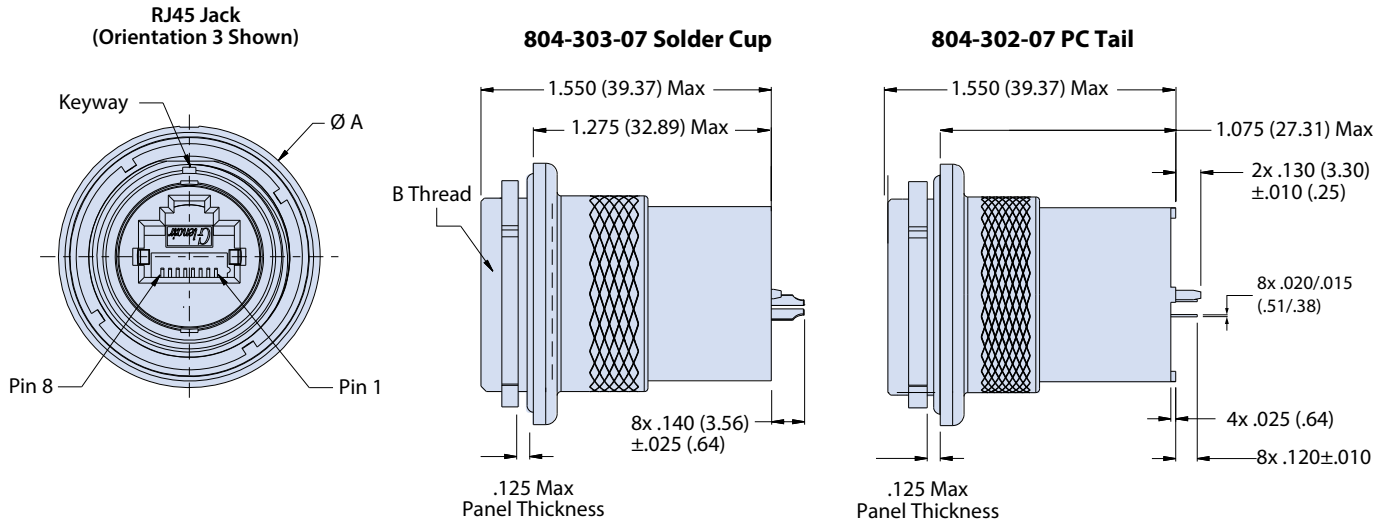
RJ45 CAT 5E ETHERNET COMPATIBLE  
**Series 801, 804 and 805 Mighty Mouse**



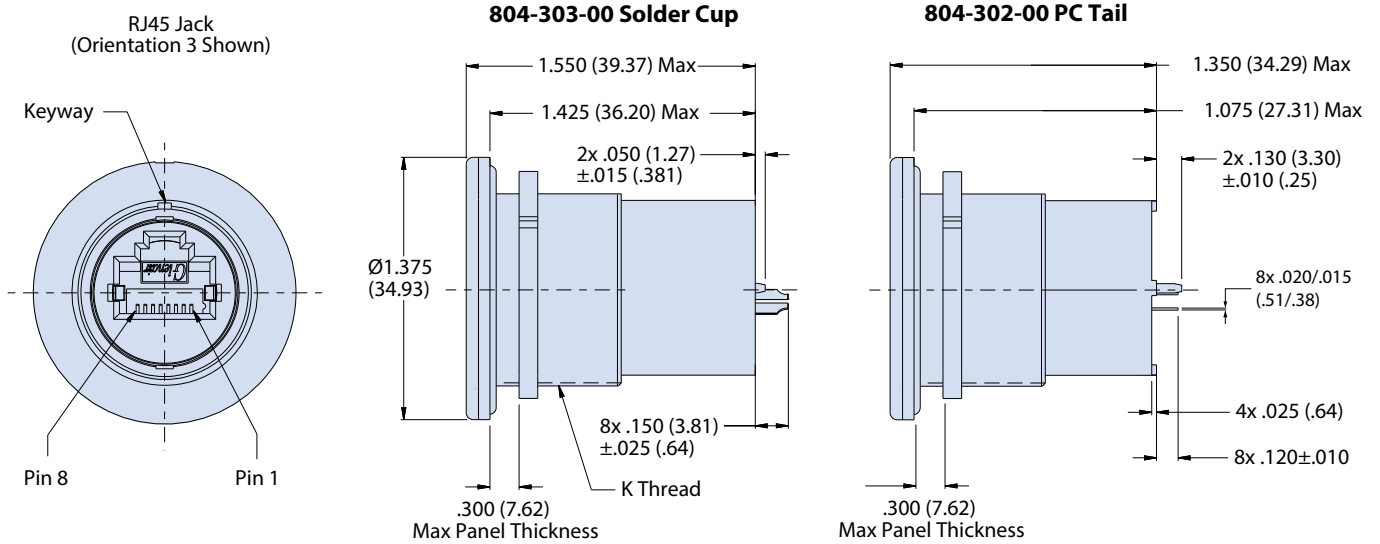
**804-302 or 804-303 Push/Pull Receptacle with RJ45 Jack-to-PC Tail or Solder Cup Termination**

Series 804 Push/Pull

**REAR PANEL MOUNT JAM NUT RECEPTACLE, 804-302-07 PC TAIL AND 804-303-07 SOLDER CUP**



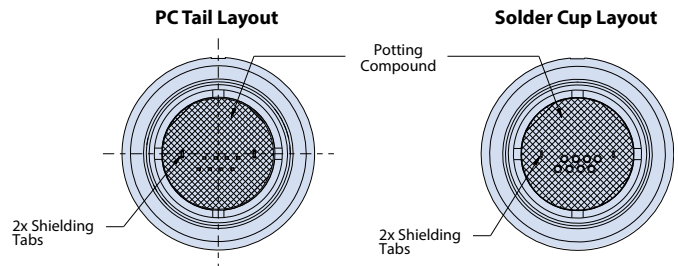
**FRONT PANEL MOUNT JAM NUT RECEPTACLE, 804-302-00 PC TAIL AND 804-303-00 SOLDER CUP**



K

**NOTES**

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Mates with 804-300 series





# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



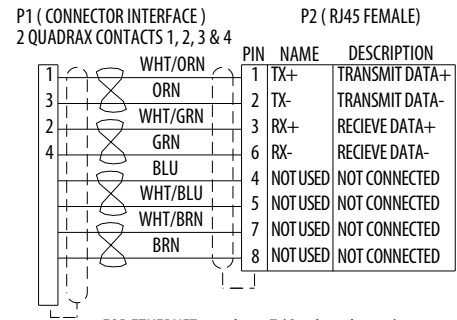
## 804-305 Push/Pull Receptacle Adapter with Quadrax Contacts to RJ45 Jack

Series 804 Push/Pull

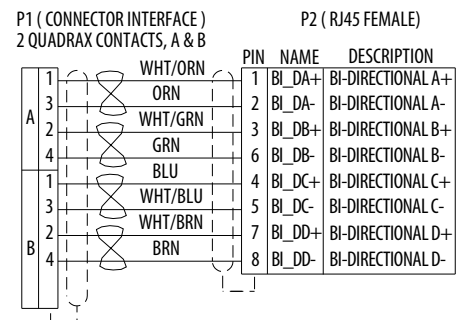
How To Order	
<b>Sample Part Number</b>	<b>804-305 - NF 07 G 16 5H P A</b>
<b>Series</b>	<b>804-305</b>
<b>Rear Accessory Option</b>	- = Accessory Thread B = Boot Adapter S = Banding Platform
<b>Material and Finish<sup>1</sup></b>	NF = Al/Cadmium, Olive Drab M = Al/Electroless Nickel MT = Al/Nickel PTFE ZNU = Al/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	01 = In Line Receptacle 00 = Jam Nut Receptacle, FPM 07 = Jam Nut Receptacle, RPM 16 = Plug
<b>Grounding</b>	- = Inline Shielded G = Shielded and grounded to shell For improved 360° shielding performance select shell size 16
<b>Shell Size</b>	15 = Shell Size 15 16 = Shell Size 16
<b>RJ45 Category</b>	5H = Cat 5E For Cat 6A applications consult factory
<b>Contact Style<sup>3</sup></b>	P = Pin S = Socket
<b>RJ45 Orientation</b>	A, B, C, D, E, F; Omit for single keyway (non polarized)

### WIRING DIAGRAMS

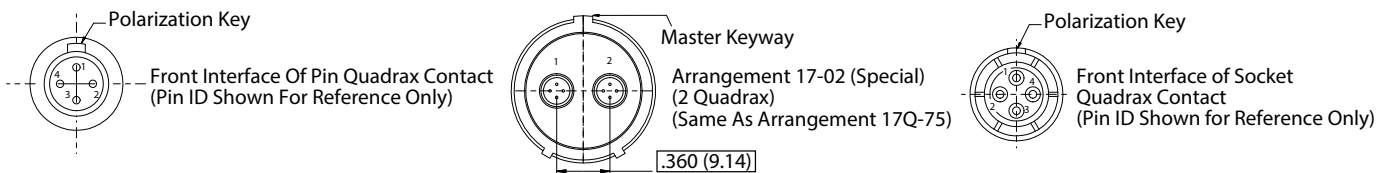
FOR ETHERNET 10base-T & 100 base-TX  
(COLOR CODES PER EIA/TIA 568B)



FOR ETHERNET 1000base-T (Gigabit ethernet)  
(COLOR CODES PER EIA/TIA 568B)

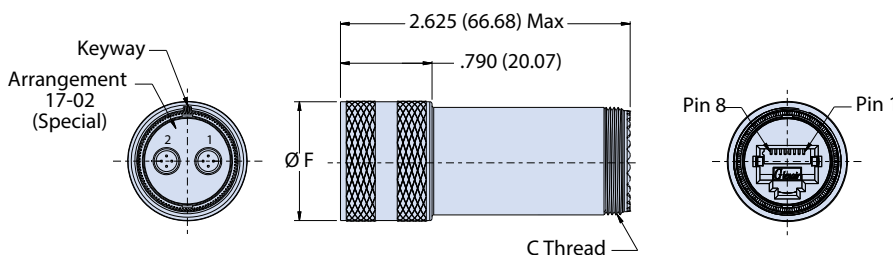


### PARTIAL VIEW OF CONNECTOR QUADRAX INTERFACE



Receptacle Dimensions								
Size Shell	Mounting Style	Ø A	B Threads	C Threads	Ø D	Ø E	Ø F	K Threads
15	Front Mount	--	--	.9375-20 UNEF-2A	1.450 (35.31)	.850 (21.59)	1.060 (26.92)	1.125-28 UN-2A
	Rear Mount	1.390 (35.31)	1.0625-20 UN-2A		--	--	--	--
16	Front Mount	--	--	1.000-20 UNEF-2A	1.502 (38.15)	.902 (22.91)	1.188 (30.18)	1.1875-28 UN-2A
	Rear Mount	1.425 (36.20)	1.250-28 UN-2A		--	--	--	--

### SHELL STYLE 01 IN-LINE RECEPTACLE



### NOTES

- See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
- Meets IP67 sealing requirement in unmated condition
- Pin contact mates with Glenair socket contact P/N 854-002-XX. Socket contact mates with Glenair pin contact P/N 854-001-XX





RJ45 CAT 5E ETHERNET COMPATIBLE  
**Series 801, 804 and 805 Mighty Mouse**  
 804-305 Push/Pull Receptacle Adapter with  
 Quadrax Contacts to RJ45 Jack

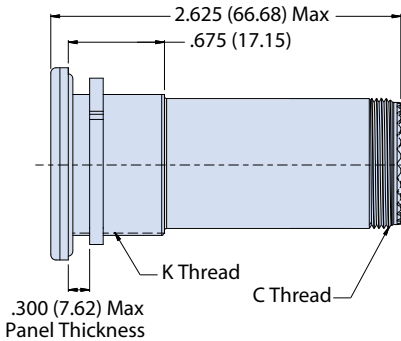


Series 804 Push/Pull

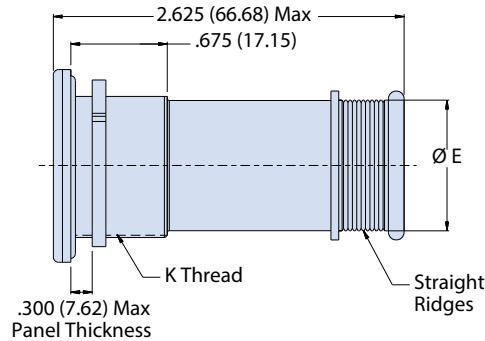
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**SHELL STYLE 00 FRONT PANEL MOUNT JAM NUT RECEPTACLE**

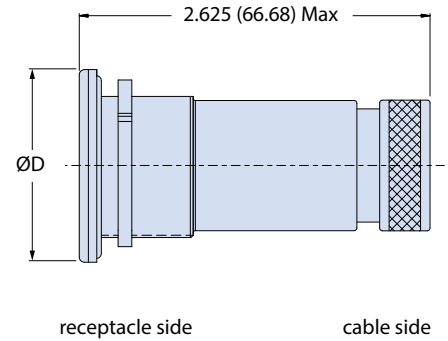
(-) Accessory Thread



(S) Banding Platform

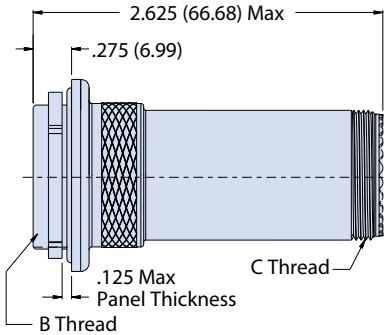


(B) Boot Adapter

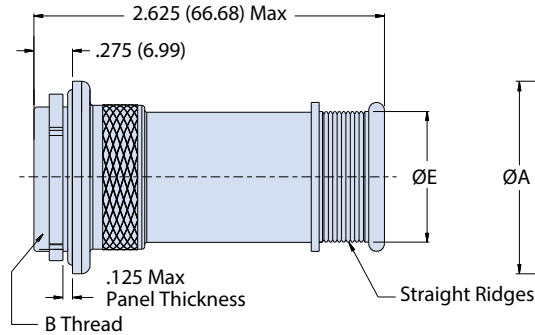


**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**

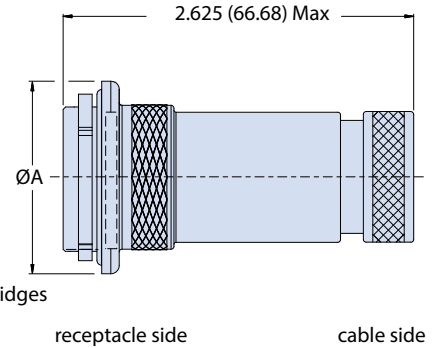
(-) Accessory Thread



(S) Banding Platform

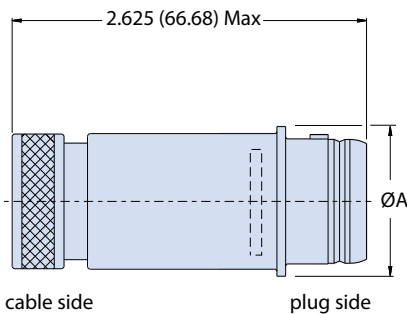


(B) Boot Adapter

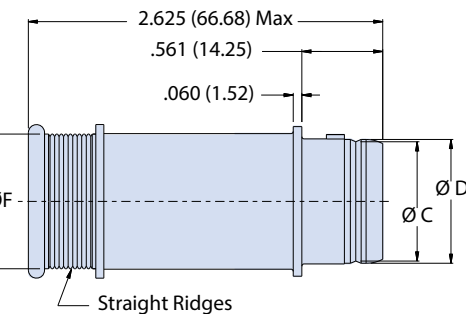


**SHELL STYLE 16 PLUG**

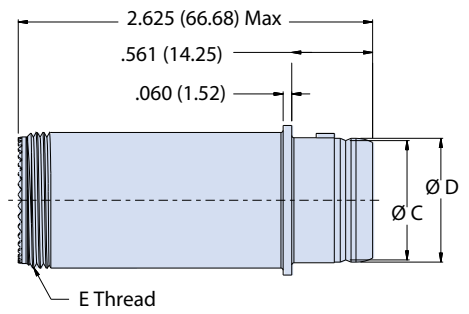
(B) Boot Adaptor



(S) Banding Platform



(-) Accessory Thread



Plug Dimensions					
Shell Size	Ø A Max	Ø C	Ø D	E Thread	Ø F
15	1.045 (26.54)	.828 (21.03)	.860 (21.84)	.9375-20 UNEF-2A	.850 (21.59)
16	1.095 (27.81)	.878 (22.30)	.910 (23.11)	1.0000-20 UNEF-2A	.902 (22.91)



# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse

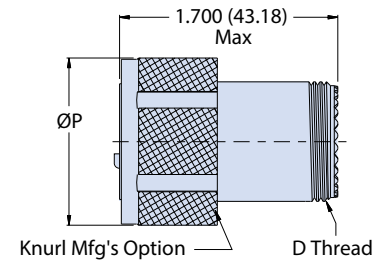
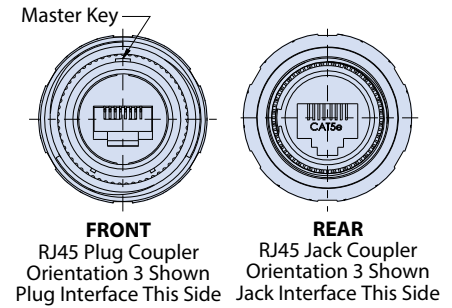


## 805-300 Triple-Start Coupler with RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)

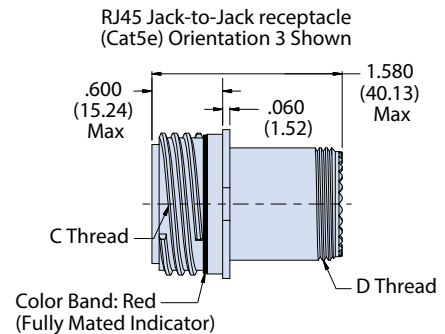
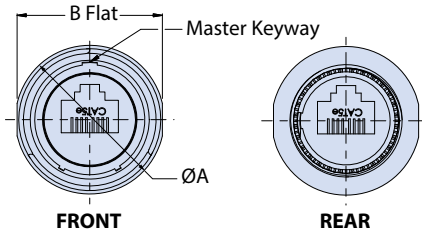
Series 805 Triple Start

How To Order	
<b>Sample Part Number</b>	<b>805-300 - NF 07 G 21 5H A 4</b>
<b>Series</b>	<b>805-300</b>
<b>Rear Accessory Option</b>	- = Accessory Thread and Teeth B = Integral Boot Adapter S = Integral Banding Platform
<b>Material and Finish<sup>1</sup></b>	NF = Al/Cadmium, Olive Drab M = Al/Electroless Nickel MT = Al/Nickel PTFE ZNU = Al/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	01 = In Line Receptacle 02 = Front or Rear Panel Mount Square Flange Receptacle 12 = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts 22 = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts 07 = Rear Panel Mount Jam Nut Receptacle 16 = Plug
<b>Grounding</b>	G = Shielded and grounded to shell For improved 360° shielding performance select shell size 21
<b>Shell Size<sup>3</sup></b>	19 = Shell Size 19 21 = Shell Size 21
<b>RJ45 Category</b>	5H = Cat 5E For Cat 6A applications consult factory,
<b>Aternate Key Positions<sup>1</sup></b>	A, B, C, D, E, F; A = Normal
<b>RJ45 Orientation</b>	1, 2, 3, 4

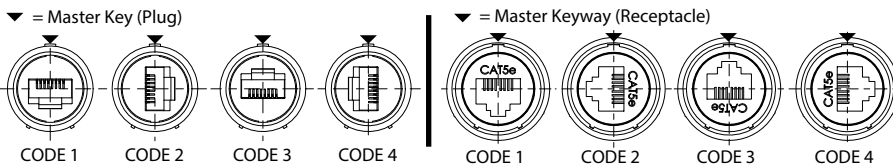
### SHELL STYLE 16 PLUG



### SHELL STYLE 01 IN-LINE RECEPTACLE



### RJ45 JACK ORIENTATION OPTIONS



Size Shell	Ø K	L	M Flat	N Thread	Ø P	Ø R
19	1.450 (36.83)	1.420 (30.07)	1.221 (31.01)	1.2500-28 UN-2A	1.311 (33.30)	.884 (22.45)
21	1.590 (40.38)	1.560 (39.62)	1.350 (34.29)	1.3750-28 UN-2A	1.448 (36.78)	1.003 (25.48)

Size Shell	Ø A	B Flat	C Threads	D Thread	Ø E	F SQ	G BSC	Ø H	J SQ
19	1.235 (31.37)	1.205 (30.61)	1.1875-.1P-.3L-TS-2A	.9375-20 UNEF-2A	2.094 (53.19)	1.537 (39.04)	1.327 (39.04)	2.197 (55.80)	1.647 (41.83)
21	1.360 (34.54)	1.330 (33.78)	1.3125-.1P-.3L-TS-2A	1.0625-18 UNEF-2A	2.270 (57.66)	1.663 (42.24)	1.452 (36.88)	2.380 (60.45)	1.772 (45.01)



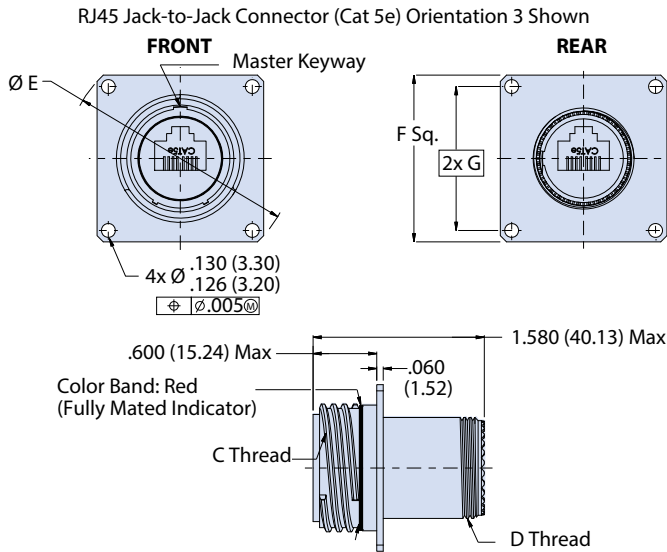
# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



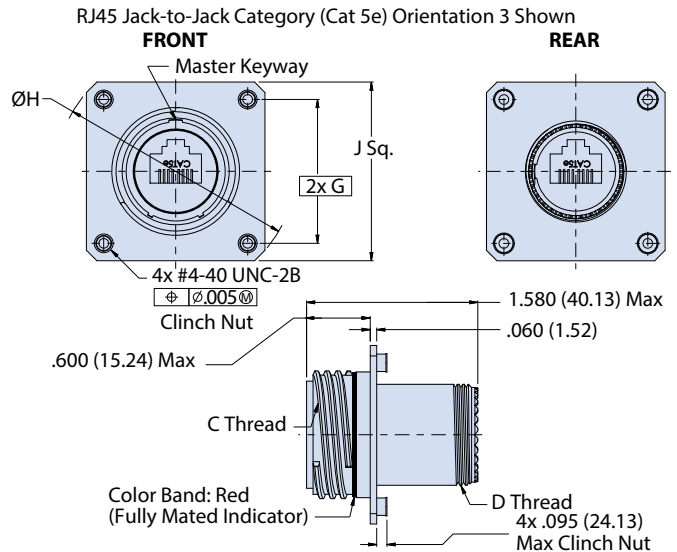
## 805-300 Triple-Start Coupler with RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)

Series 805 Triple Start

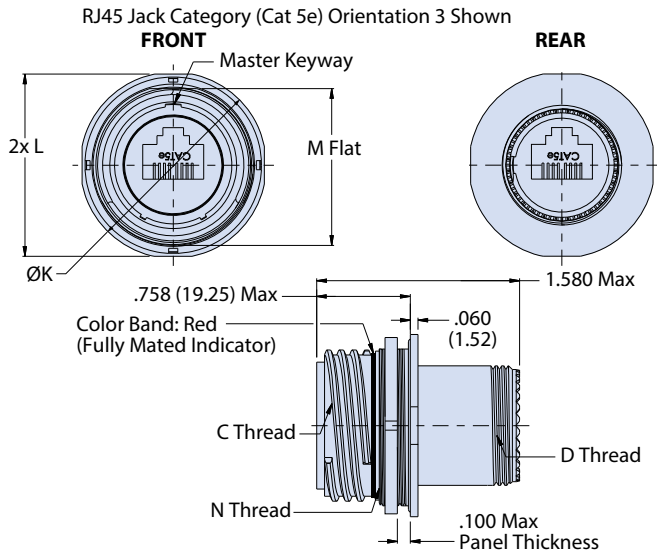
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE



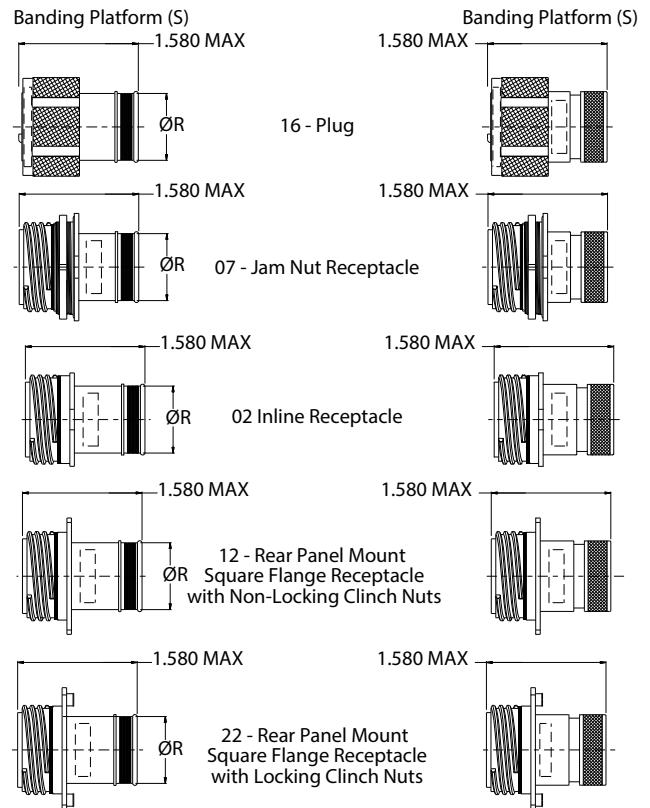
### SHELL STYLE 12 & 22 FRONT OR REAR PANEL MOUNT RECEPTACLE WITH CLINCH NUTS



### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE



### ADDITIONAL REAR ACCESSORY OPTIONS



### NOTES

- See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
- IP67 sealing in unmated condition
- Size 19 uses only rear shield sleeve  
Size 21 uses front and rear shield sleeves

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# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse



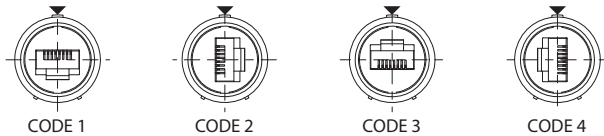
## 805-301 Triple-Start Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

Series 805 Triple Start

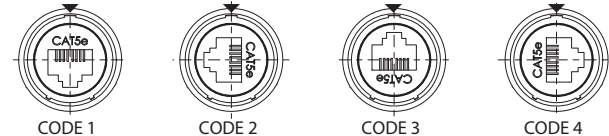
How To Order	
<b>Sample Part Number</b>	<b>805-301 - NF 01 G 21 5H A 1</b>
<b>Series</b>	<b>805-301</b> = Crimp Contacts
<b>Rear Accessory Option</b>	- = Accessory Thread and Teeth B = Integral Boot Adapter S = Integral Banding Platform
<b>Material and Finish<sup>1</sup></b>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	01 = In Line Receptacle 02 = Front or Rear Panel Mount Square Flange Receptacle 12 = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts 22 = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts 07 = Rear Panel Mount Jam Nut Receptacle 16 = Plug
<b>Shielding/Grounding<sup>2</sup></b>	- = Inline Shielded G = Inline Shielded and Grounded to Shell
<b>Shell Size</b>	21 = Shell Size 21
<b>RJ45 Category</b>	5H = Cat 5E For Cat 6A applications consult factory
<b>Aternate Key Positions<sup>1</sup></b>	A, B, C, D, E, F; A = Normal
<b>RJ45 Orientation Option</b>	1, 2, 3, 4

### RJ45 JACK ORIENTATION OPTIONS

▼ = Master Key (Plug)

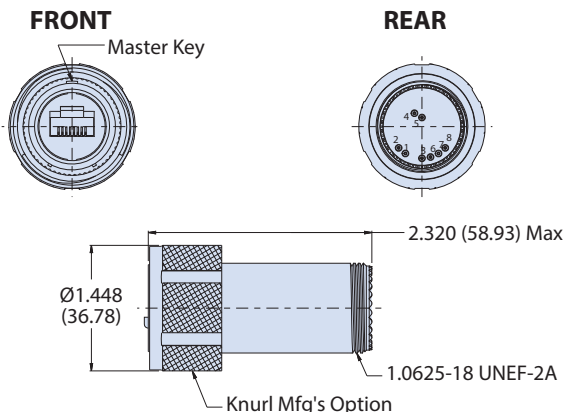


▼ = Master Keyway (Receptacle)



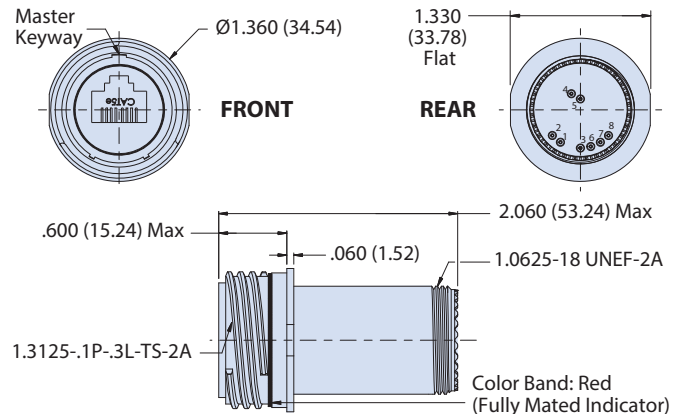
### SHELL STYLE 16 PLUG

RJ45 Plug Category (CAT 5e) Orientation 3 Shown



### SHELL STYLE 01 IN-LINE RECEPTACLE

RJ45 Jack Category (CAT 5e) Orientation 3 Shown



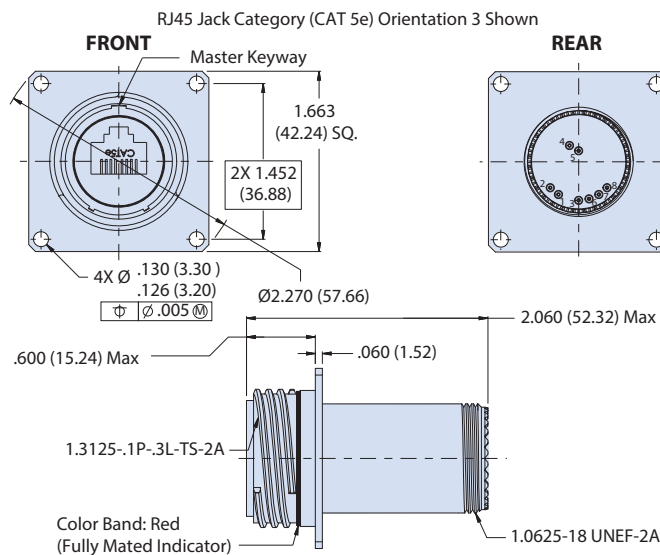


RJ45 CAT 5E ETHERNET COMPATIBLE  
**Series 801, 804 and 805 Mighty Mouse**

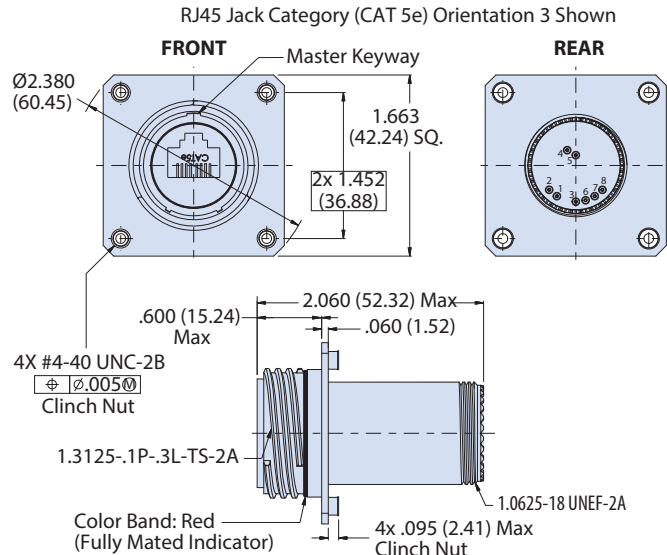


805-301 Triple-Start Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

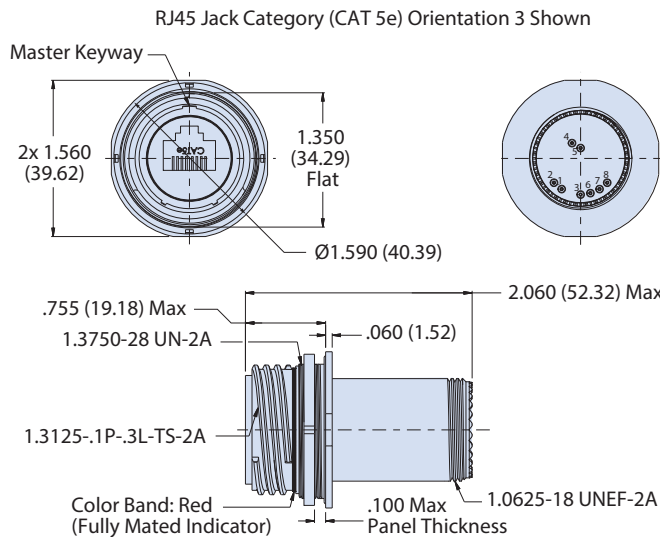
**SHELL STYLE 02 FRONT OR REAR PANEL MOUNT RECEPTACLE**



**SHELL STYLE 12 & 22 REAR PANEL MOUNT RECEPTACLE WITH CLINCH NUTS**

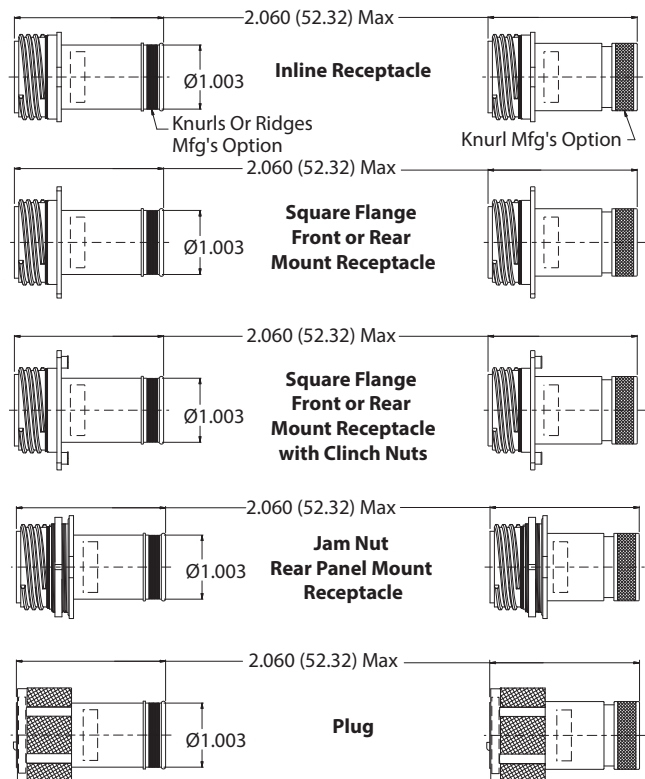


**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**



**REAR ACCESSORY OPTIONS**

**S - Integrated Banding Platform**      **B - Integrated Boot Adaptor**



**NOTES**

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. G option is inline shielded and grounded to shell, receptacle only
3. Meets IP67 sealing requirement in unmated condition
4. Supplied with size 23 crimp pin contacts (809-001 supplied loose)



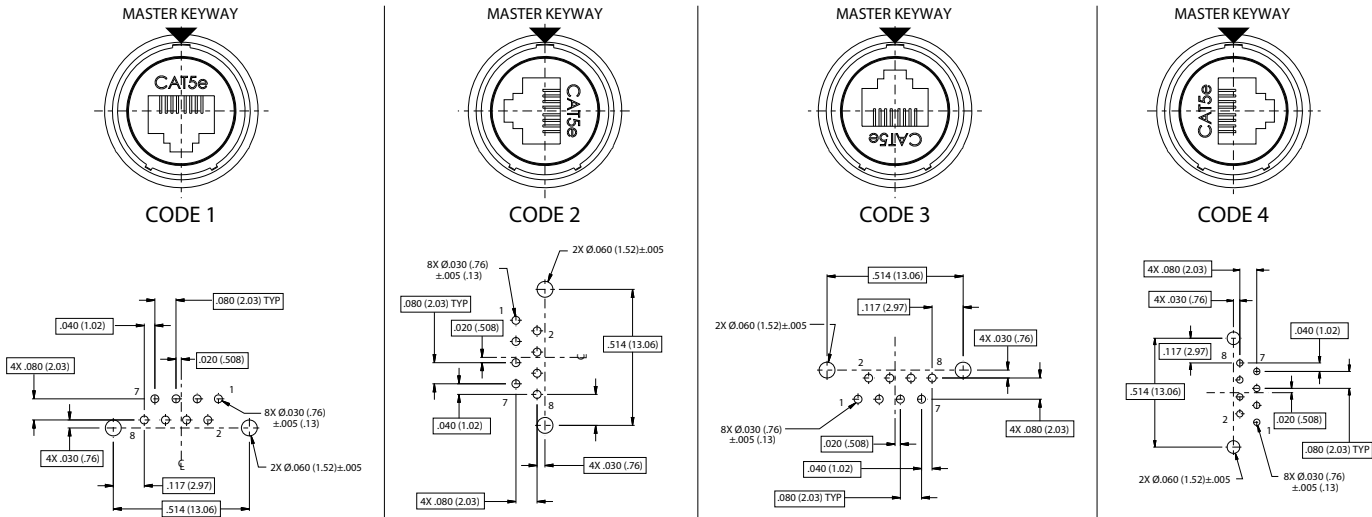
# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse 805-302 Triple-Start Receptacle with RJ45 Jack to PC Tail Termination



Series 805 Triple Start

How To Order									
<b>Sample Part Number</b>	<b>805-302</b>		<b>NF</b>	<b>07</b>	<b>G</b>	<b>19</b>	<b>5H</b>	<b>A</b>	<b>1</b>
<b>Series</b>	805-302 = PC Tail								
<b>Material and Finish<sup>1</sup></b>	<b>NF</b> = Aluminum/Cadmium, Olive Drab <b>M</b> = Aluminum/Electroless Nickel <b>MT</b> = Aluminum/Nickel PTFE <b>ZNU</b> = Aluminum/Black Zinc Nickel								
<b>Shell Style<sup>1</sup></b>	<b>02</b> = Front or Rear Panel Mount Square Flange Receptacle <b>12</b> = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts <b>22</b> = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts <b>07</b> = Rear Panel Mount Jam Nut Receptacle								
<b>Grounding</b>	<b>G</b> = Shielded and grounded to shell For improved 360° shielding performance select shell size 21								
<b>Shell Size</b>	<b>19</b> = Shell Size 19 <b>21</b> = Shell Size 21								
<b>RJ45 Category</b>	<b>5H</b> = Cat 5E            For Cat 6A applications consult factory								
<b>Alternate Key Positions<sup>1</sup></b>	<b>A, B, C, D, E, F</b> ; A = Normal								
<b>RJ45 Orientation Option</b>	<b>1, 2, 3, 4</b>								

## RJ45 RECEPTACLE ORIENTATION OPTIONS AND PCB FOOTPRINT (PARTIAL VIEWS SHOWN)



PCB Layout (Solder Side Shown)

Square Flange Mount Dimensions									
Shell Size	Ø A	B Flat	C Thread	Ø D	Ø E	F SQ	G BSC	Ø H	J SQ
19	1.235 (31.69)	1.205 (30.61)	1.1875-.1P-.3L-TS-2A	0.912 (23.16)	2.094 (53.19)	1.537 (39.04)	1.327 (33.71)	2.197 (55.80)	1.647 (41.83)
21	1.360 (34.54)	1.330 (33.78)	1.3125-.1P-.3L-TS-2A	1.017 (25.83)	2.270 (57.66)	1.663 (42.24)	1.452 (36.88)	2.380 (60.45)	1.772 (45.01)

Jam Nut and Plug Dimensions				
Shell Size	Ø K	L	M Flat	N Thread
19	1.450 (36.83)	1.420 (36.07)	1.221 (31.01)	1.2500-28 UN-2A
21	1.590 (40.39)	1.560 (39.62)	1.350 (34.29)	1.3750-28 UN-2A

### NOTES

- See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions
- Meets IP67 sealing requirement in unmated condition



RJ45 CAT 5E ETHERNET COMPATIBLE  
**Series 801, 804 and 805 Mighty Mouse**  
 805-302 Triple-Start Receptacle with  
 RJ45 Jack to PC Tail Termination

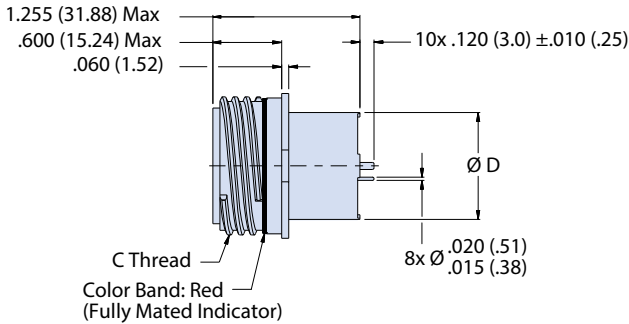
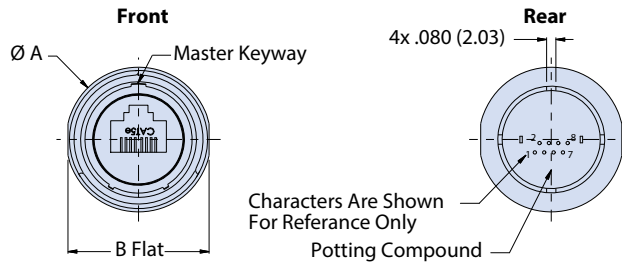


Series 805 Triple Start

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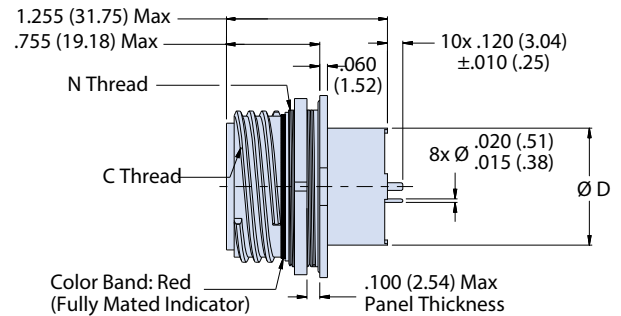
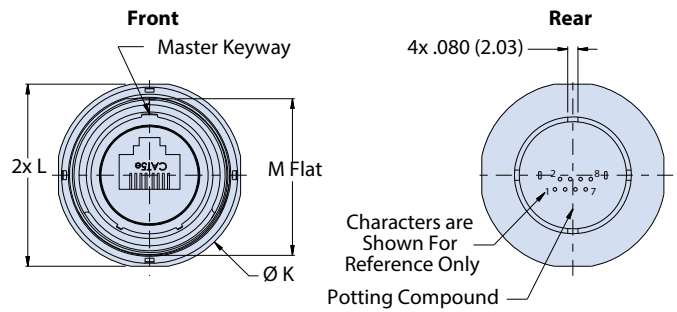
**SHELL STYLE 01 INLINE**

RJ45 Jack Category (Cat 5e) Orientation 3 Shown



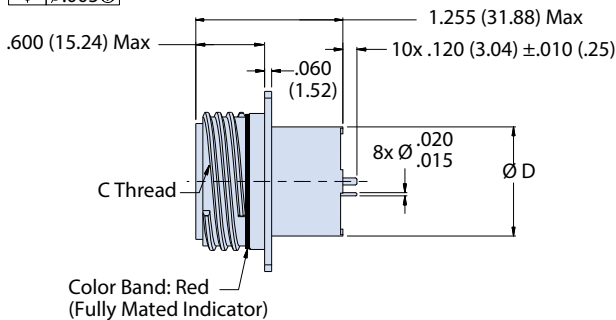
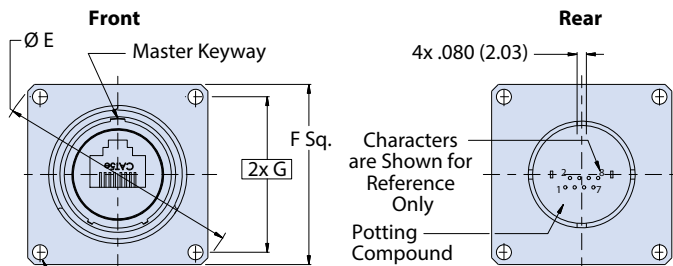
**SHELL STYLE 07 JAM NUT**

RJ45 Jack Category (Cat 5e) Orientation 3 Shown



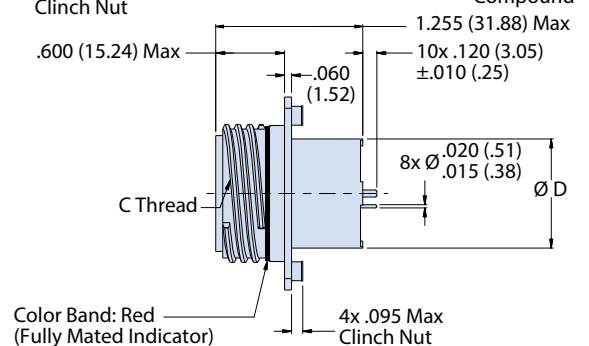
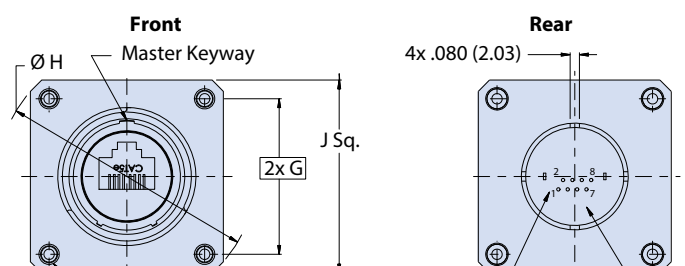
**SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE**

RJ45 Jack Category (Cat 5e) Orientation 3 Shown



**SHELL STYLE 12 AND 22 REAR PANEL MOUNT SQ FLANGE RECEPTACLE WITH CLINCH NUTS**

RJ45 Jack Category (CAT 5e) Orientation 3 Shown





# RJ45 CAT 5E ETHERNET COMPATIBLE Series 801, 804 and 805 Mighty Mouse

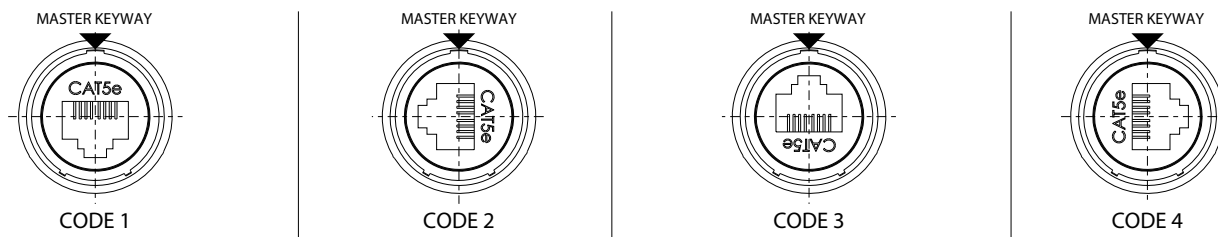


## 805-303 Triple-Start Receptacle with RJ45 Jack to Solder Cup Termination

Series 805 Triple Start

How To Order	
<b>Sample Part Number</b>	<b>805-303 NF 07 G 19 5H A 1</b>
<b>Series</b>	<b>805-303</b> = Solder Cup
<b>Material and Finish<sup>1</sup></b>	<b>NF</b> = Aluminum/Cadmium, Olive Drab <b>M</b> = Aluminum/Electroless Nickel <b>MT</b> = Aluminum/Nickel PTFE <b>ZNU</b> = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	<b>02</b> = Front or Rear Panel Mount Square Flange Receptacle <b>12</b> = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts <b>22</b> = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts <b>07</b> = Rear Panel Mount Jam Nut Receptacle
<b>Grounding</b>	<b>G</b> = Shielded and grounded to shell For improved 360° shielding performance select shell size 21
<b>Shell Size</b>	<b>19</b> = Shell Size 19 <b>21</b> = Shell Size 21
<b>RJ45 Category</b>	<b>5H</b> = Cat 5E                      For Cat 6A applications consult factory
<b>Alternate Key Positions<sup>1</sup></b>	<b>A, B, C, D, E, F</b> ; A = Normal
<b>RJ45 Orientation Option</b>	<b>1, 2, 3, 4</b>

### RJ45 RECEPTACLE ORIENTATION OPTIONS (PARTIAL VIEWS SHOWN)



Square Flange Mount Dimensions									
Shell Size	Ø A	B Flat	C Thread	Ø D	Ø E	F SQ	G BSC	Ø H	J SQ
19	1.235 (31.69)	1.205 (30.61)	1.1875-.1P-.3L-TS-2A	.912 (23.16)	2.094 (53.19)	1.537 (39.04)	1.327 (33.71)	2.197 (55.80)	1.647 (41.83)
21	1.360 (34.54)	1.330 (33.78)	1.3125-.1P-.3L-TS-2A	1.017 (25.83)	2.270 (57.66)	1.663 (42.24)	1.452 (36.88)	2.380 (60.45)	1.772 (45.01)

Jam Nut and Plug Dimensions				
Shell Size	Ø K	L	M Flat	N Thread
19	1.450 (36.83)	1.420 (36.07)	1.221 (31.01)	1.2500-28 UN-2A
21	1.590 (40.39)	1.560 (39.62)	1.350 (34.29)	1.3750-28 UN-2A

### NOTES

- See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions
- Meets IP67 sealing requirement in unmated condition
- Materials/Finishes:
  - Insulators: high grade rigid dielectric/n.a.
  - contacts: copper alloy, gold plated
  - seals: silicone based elastomer
  - RJ45 coupler housing: UL94V-0 compliant ABS or PPS
  - hardware: stainless steel/passivated





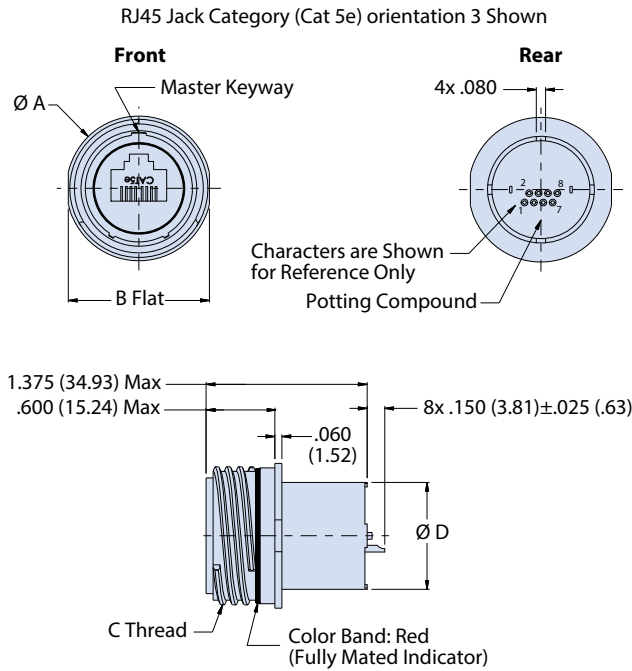
RJ45 CAT 5E ETHERNET COMPATIBLE  
**Series 801, 804 and 805 Mighty Mouse**  
 805-303 Triple-Start Receptacle with  
 RJ45 Jack to Solder Cup Termination



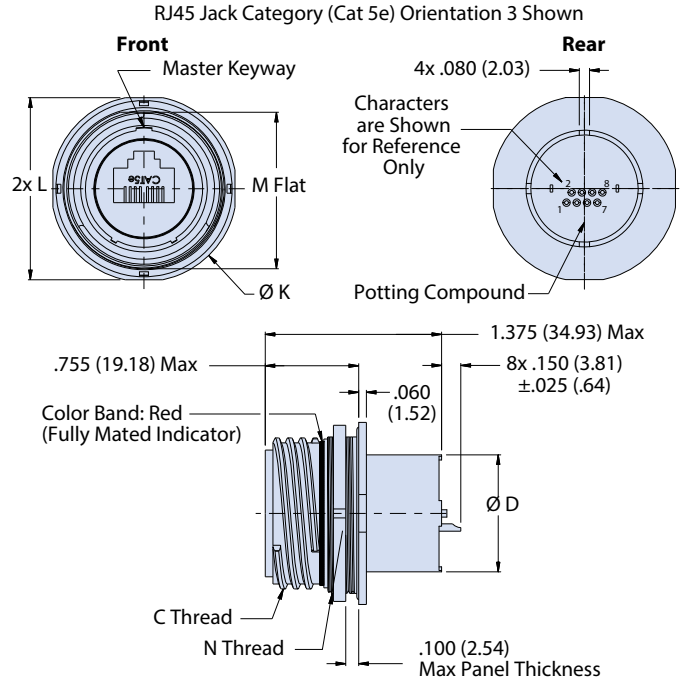
Series 805 Triple Start

K

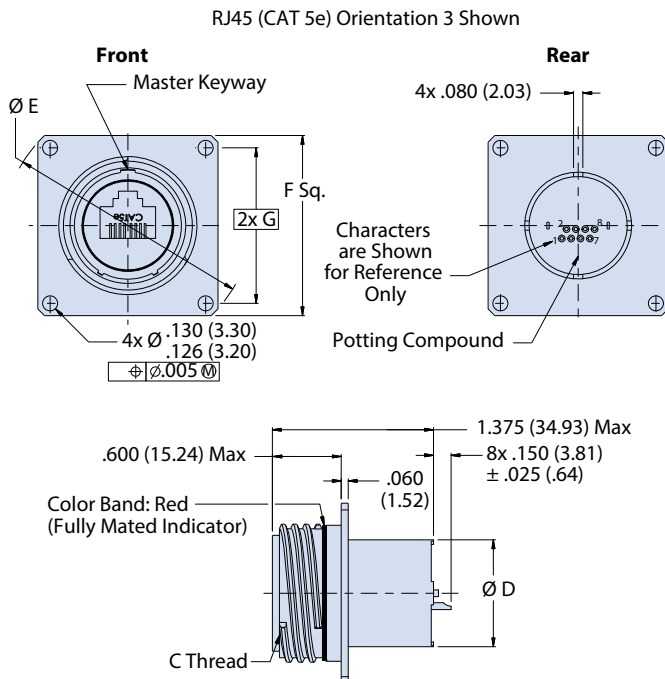
**SHELL STYLE 01 INLINE**



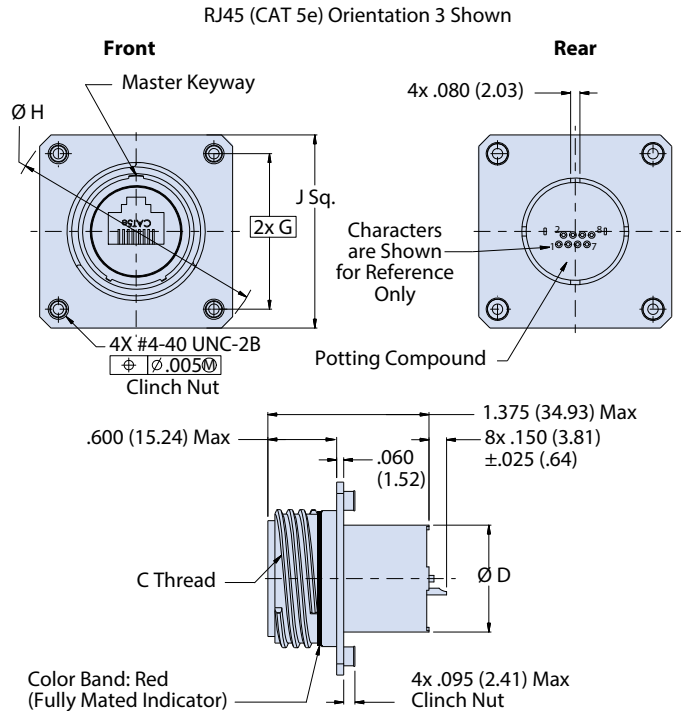
**SHELL STYLE 07 JAM NUT**



**SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE**



**SHELL STYLE 12 AND 22 REAR PANEL MOUNT SQ FLANGE RECEPTACLE WITH CLINCH NUTS**



SERIES 80 MIGHTY  
MOUSE FIELD-READY  
STANDARD USB

# SUPERSEAL™



Series 801, 804 and 805 Mighty Mouse connectors with superior sealing, shielding and a variety of termination options.



## Features

- Superior sealing— IP67 unmated and IP68 when mated—for complete system protection against water, sand and dust
- Couple, Crimp contact, PC tail and solder cup termination options available
- Integral banding porch or connector accessory interface
- Standard USB 2.0 plugs and receptacles
- Series 804 push/pull, Series 801 double-start or Series 805 triple-start, stub ACME threaded coupling.
- Less than half the size and weight compared to MIL-DTL-38999 type solutions



Glenair, Inc.  
1211 Air Way  
Glendale, CA 91201-2497  
818-247-6000  
sales@glenair.com  
www.glenair.com



USB 2.0 TYPE A  
**Series 801, 804 and 805 Mighty Mouse**  
 Product Selection Guide



**Series 801**  
**Double-Start**



**801-340** Page L-2  
 SuperSeal™ Coupler with Accessory Options and USB Male-to-Female (Plug) or Female-to-Female (Receptacle).

**801-341** Page L-4  
 SuperSeal™ Connector with Accessory Options and USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts.

**801-342 PC Tail or 801-343 Solder Cup** Page L-6  
 SuperSeal™ Receptacles with USB Female Interface to PC Tail or Solder Cup Termination.

**Series 804**  
**Push/Pull**



**804-340** Page L-8  
 SuperSeal™ Coupler with Accessory Options and USB Male-to-Female (Plug) or Female-to-Female (Receptacle).

**804-341** Page L-10  
 SuperSeal™ Connectors with Accessory Options and USB Male (Plug) or Female (Receptacle) to Rear Release Crimp Socket Contacts.

**804-342 PC Tail and 801-343 Solder Cup** Page L-12  
 SuperSeal™ Receptacles with USB Female Interface to PC Tail or Solder Cup Termination.

**Series 805**  
**Triple-Start**



**805-340** Page L-14  
 SuperSeal™ Coupler with Accessory Options and USB Male-to-Female (Plug) or Female-to-Female (Receptacle).

**805-341** Page L-16  
 SuperSeal™ Connectors with Accessory Options and USB Male (Plug) or Female (Receptacle) to Rear Release Crimp Socket Contacts. .

**805-342 PC Tail** Page L-18  
 SuperSeal™ Receptacle with USB Female Interface to PC Tail Termination.

**805-343 Solder Cup** Page L-20  
 SuperSeal™ Receptacle with USB Female Interface to Solder Cup Termination.





USB 2.0 TYPE A

Series 801, 804 and 805 Mighty Mouse



801-340 Coupler with USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

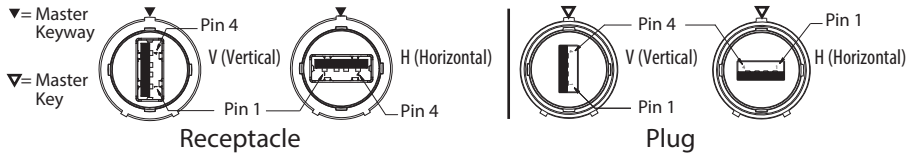
How To Order	
Sample Part Number	801-340 - NF 07 -16 2 A A H
Series	801-340
Rear Accessory Option	- = Accessory Thread and Teeth S = Integrated Banding Platform B = Integrated Boot Adaptor
Material and Finish <sup>1</sup>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel
Shell Style <sup>1</sup>	01 = In Line Receptacle 02 = Front or Rear Panel Mount Square Flange Receptacle 07 = Rear Panel Mount Jam Nut Receptacle 26 = Plug
Shell Size	16 = Shell Size 16
USB Performance	2 = USB 2.0
USB Type	A = Type A
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F
USB Orientation	H = Horizontal V = Vertical

Series 801 Double Start

**NOTES**

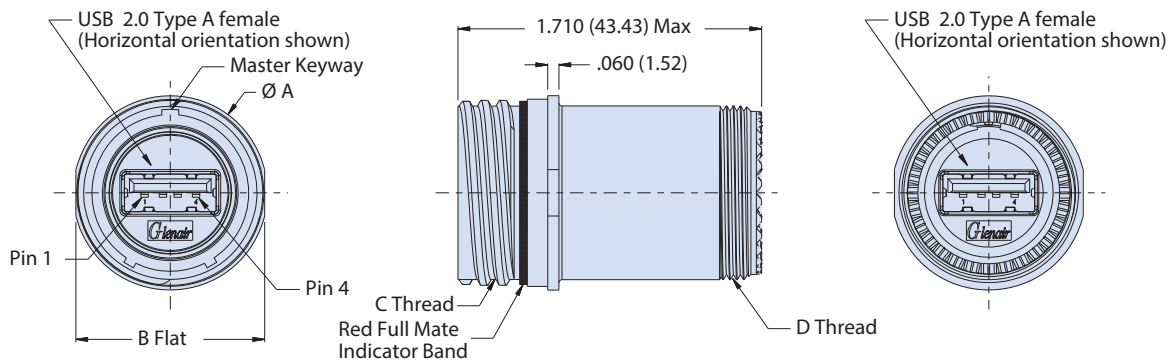
1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition

**USB 2.0 ORIENTATION OPTIONS**



Dimensions											
Size Shell	Ø A	B Flat	C Threads	D Threads	Ø E	F Sq	G Bsc	Ø J	K Flat	M Threads	Ø N
16	1.040 (26.42)	1.010 (25.65)	1.0000-.1P-.2L-DS-2A	.9375-20 UNEF-2A	1.625 (41.28)	1.219 (30.96)	.981 (24.92)	1.264 (32.11)	1.230 (31.24)	1.0625-20 UN-2A	1.230 (31.24)

**SHELL STYLE 01 INLINE RECEPTACLE**



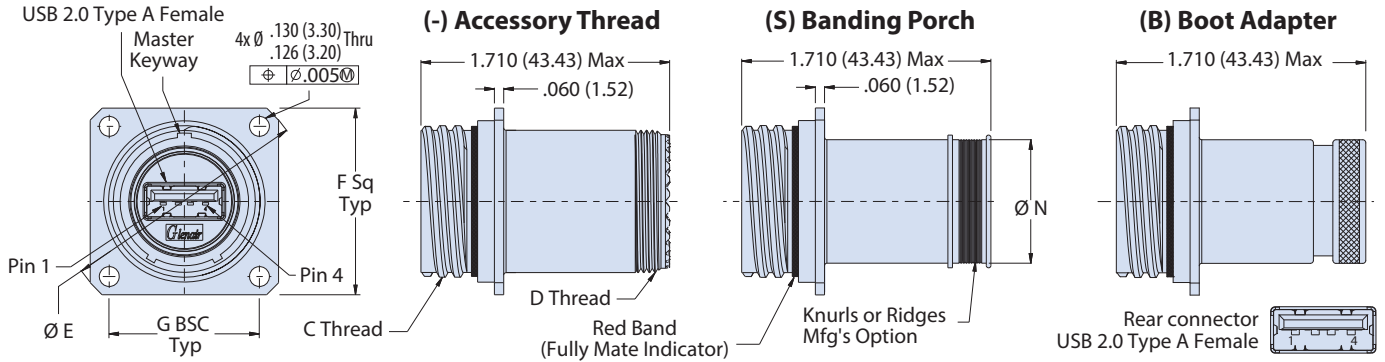


USB 2.0 TYPE A  
**Series 801, 804 and 805 Mighty Mouse**  
 801-340 Coupler with USB Male-to-Female (Plug) or  
 Female-to-Female (Receptacle)

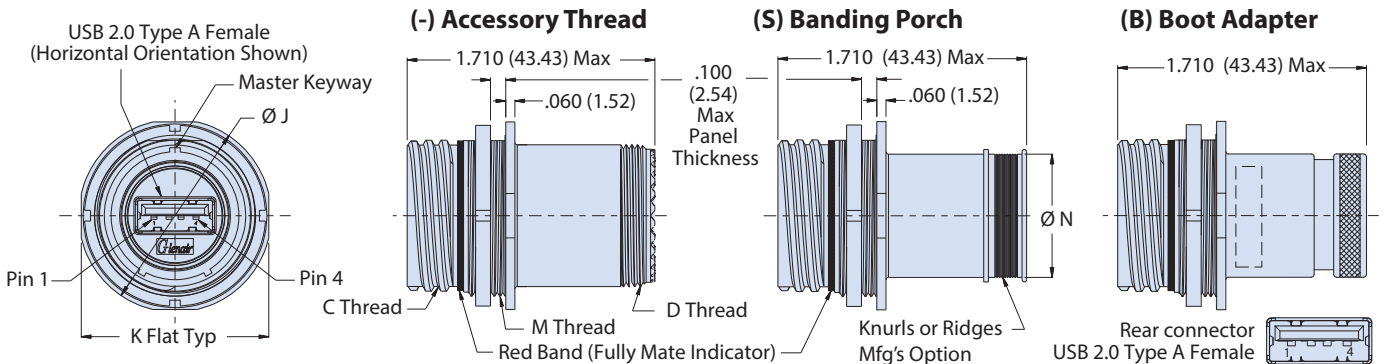


Series 801 Double Start

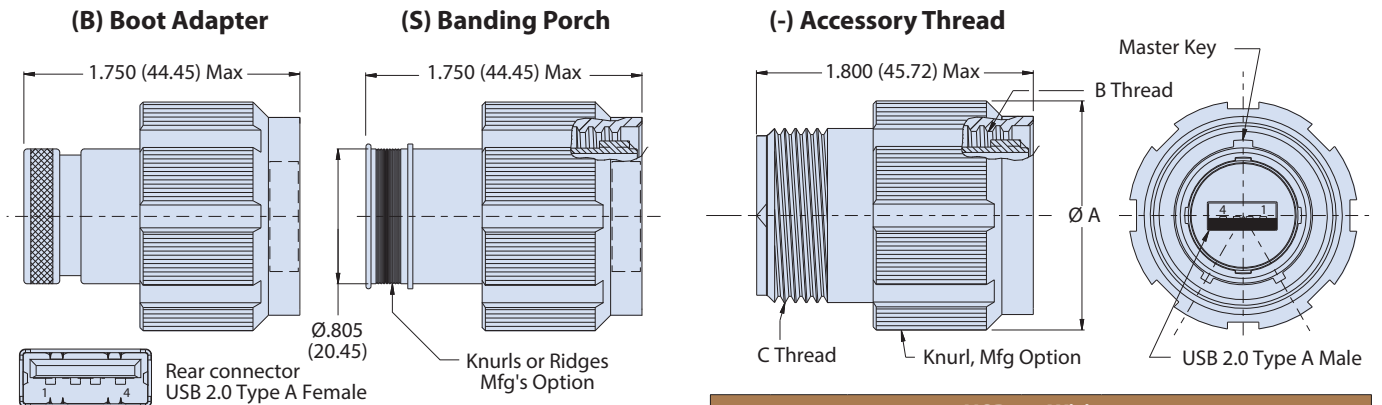
**SHELL STYLE 02 FRONT OR REAR SQUARE FLANGE RECEPTACLE**



**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**



**SHELL STYLE 26 PLUG**



Plug Dimensions			
Shell Size	Ø A	B Threads	C Threads
16	1.340 (34.04)	1.0000-1P-2L-2B	.9375-20 UNEF-2A

USB 2.0 Wiring				
Pin	Name	Cable Color(USB)	Desc.	Recommended Wire Size (AWG)
1	(V Bus)	Red	+5V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22



USB 2.0 TYPE A

# Series 801, 804 and 805 Mighty Mouse



801-341 Connector with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts

Series 801 Double Start

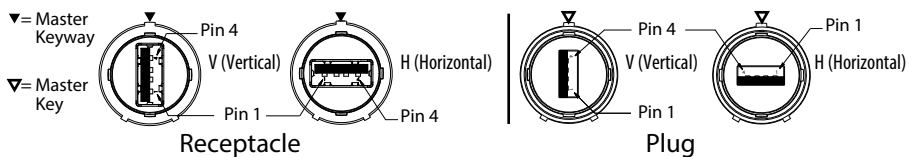
How To Order	
<b>Sample Part Number</b>	<b>801-341 - NF 07 -16 2 A A H</b>
<b>Series</b>	<b>801-341</b>
<b>Rear Accessory Option</b>	- = Accessory Thread and Teeth B = Integrated Boot Adaptor S = Integrated Banding Platform
<b>Material and Finish<sup>1</sup></b>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	01 = In Line Receptacle 02 = Front or Rear Panel Mount Square Flange Receptacle 07 = Rear Panel Mount Jam Nut Receptacle 26 = Plug
<b>Shell Size</b>	16 = Shell Size 16
<b>USB Performance</b>	2 = USB 2.0
<b>USB Type</b>	A = Type A
<b>Alternate Key Positions<sup>1</sup></b>	A, B, C, D, E, F; Omit for single keyway (non polarized)
<b>USB Orientation</b>	H = Horizontal V = Vertical

## NOTES

- See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
- Meets IP67 sealing requirement in unmated condition
- Supplied with size 23 socket contacts (809-002 supplied loose)  
1 extra contact provided
- Material/Finish
  - Shell, jam nut: al alloy or cres
  - Seal/o-ring fluorosilicone

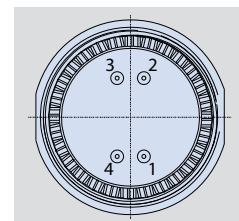
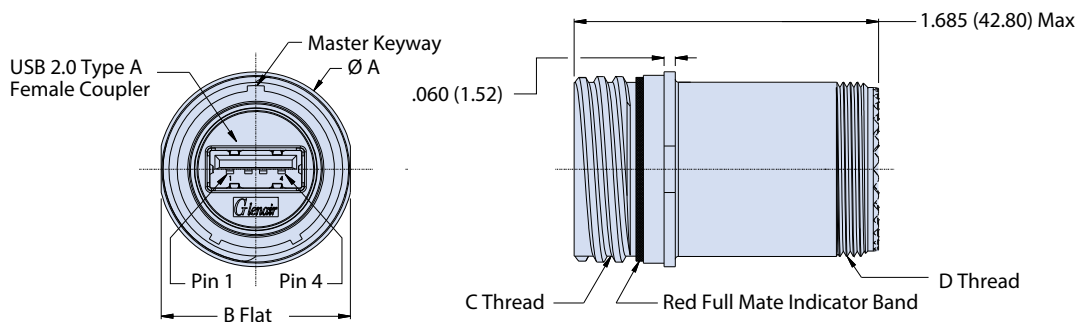
USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Desc.	Recommended Wire Size (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

## USB 2.0 ORIENTATION OPTIONS



Receptacle Dimensions											
Size Shell	Ø A	B Flat	C Threads	D Threads	Ø E	F Sq	G Bsc	Ø J	K Flat	M Threads	Ø N
16	1.040 (26.42)	1.010 (25.65)	1.0000-.1P-.2L-DS-2A	.9375-20 UNEF-2A	1.625 (41.28)	1.219 (30.96)	.981 (24.92)	1.264 (32.11)	1.230 (31.24)	1.0625-20 UN-2A	1.230 (31.24)

## SHELL STYLE 01 IN-LINE RECEPTACLE



Rear contact positions apply to all shell styles

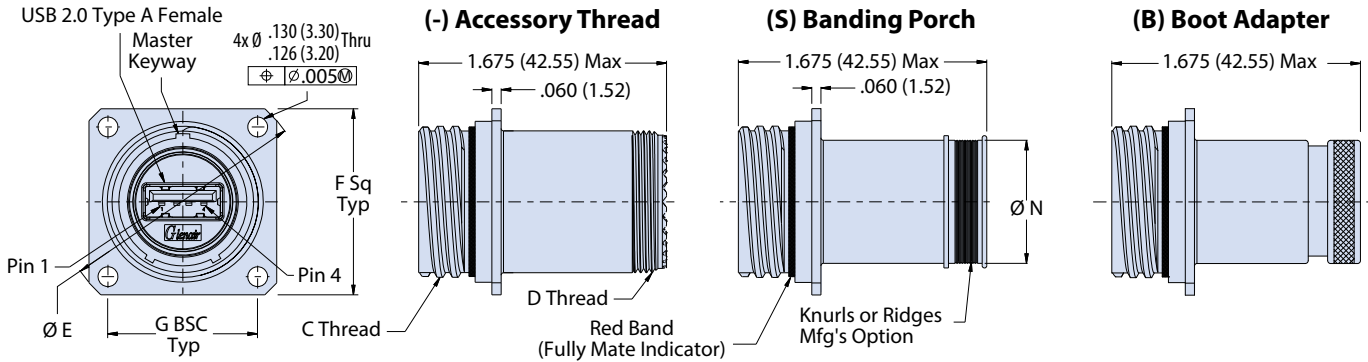


USB 2.0 TYPE A  
**Series 801, 804 and 805 Mighty Mouse**  
 801-341 Connector with USB Male (Plug) or Female  
 (Receptacle) to Crimp Removable Contacts

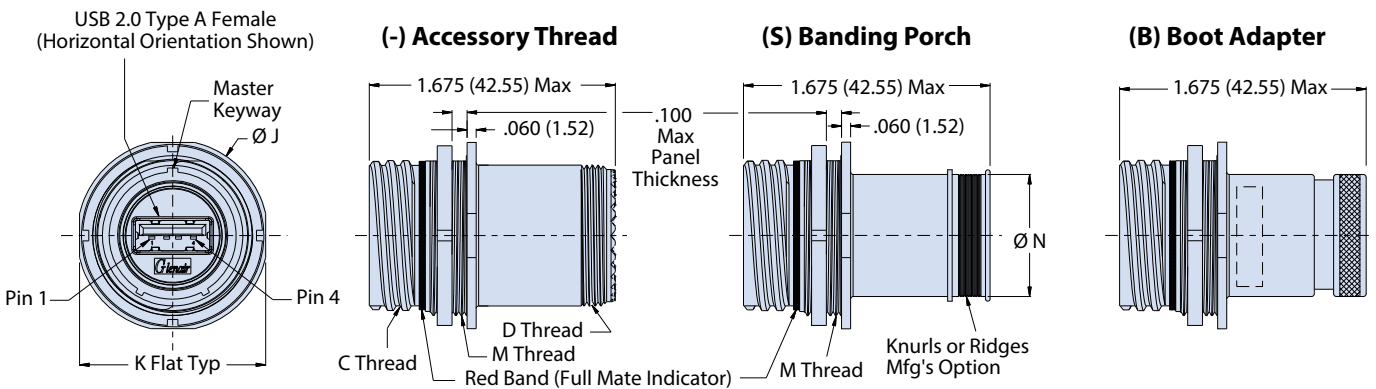


Series 801 Double Start

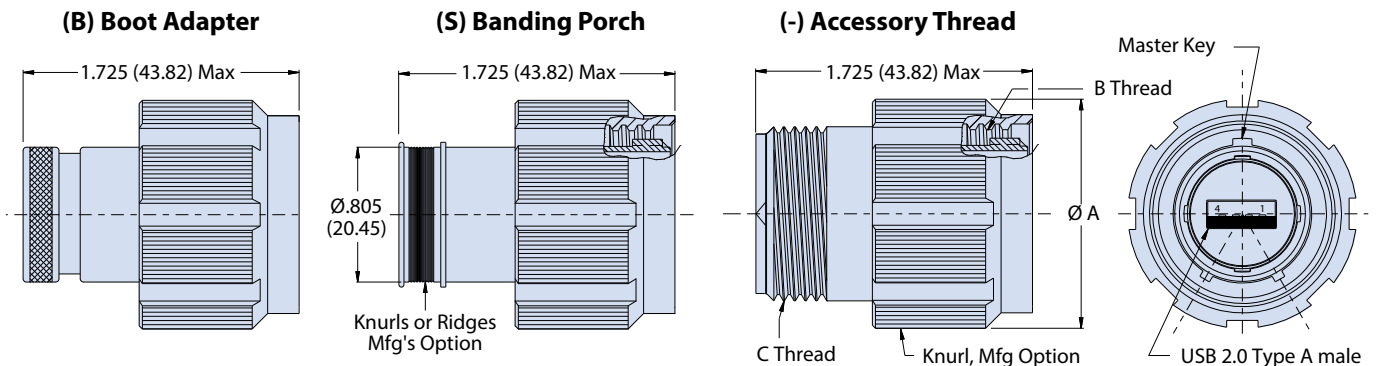
**SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE**



**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**



**SHELL STYLE 26 PLUG**



Plug Diameter			
Shell Size	ØA	B Thread	C Threads
16	1.340 (34.04)	1.0000-.1P-.2L-2B	.9375-20 UNEF-2A



USB 2.0 TYPE A

# Series 801, 804 and 805 Mighty Mouse



801-342 or 801-343 Receptacles with USB Female Interface to PC Tail or Solder Cup Termination

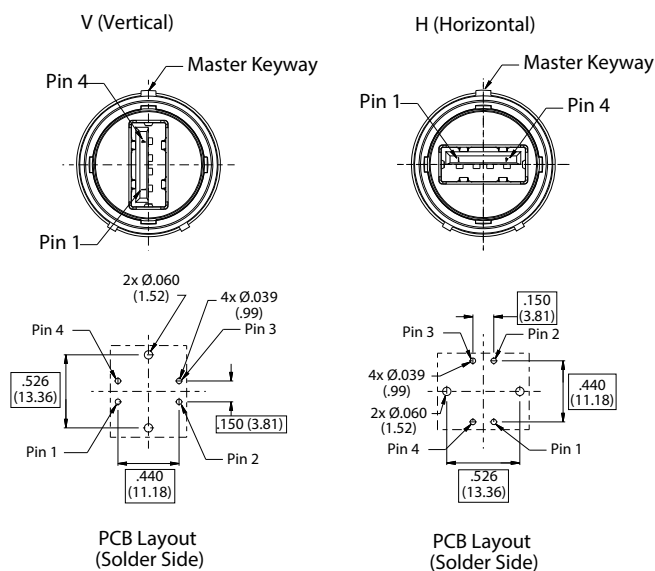
Series 801 Double Start

How To Order	
<b>Sample Part Number</b>	<b>801-342 NF 07 -16 2 A A H</b>
<b>Series</b>	801-342 = PC Tail 801-343 = Solder Cup
<b>Material and Finish<sup>1</sup></b>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	02 = Front or Rear, Square Flange Panel Mount Receptacle 07 = Jam Nut Receptacle, Rear Panel Mount
<b>Shell Size</b>	16 = Shell Size 16
<b>USB Performance</b>	2 = USB 2.0
<b>USB Type</b>	A = Type A
<b>Alternate Key Positions<sup>1</sup></b>	A, B, C, D, E, F
<b>USB Orientation</b>	H = Horizontal V = Vertical

Dimensions							
Size Shell	C Threads	Ø E	F Sq	G Bsc	Ø J	K Flat	M Threads
16	1.0000-.1P-.2L-DS-2A	1.625 (41.28)	1.219 (30.96)	0.981 (24.92)	1.264 (32.11)	1.230 (31.24)	1.0625-20 UN-2A

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Size (AWG)
1	(V Bus)	Red	+5V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

## USB 2.0 ORIENTATION OPTIONS



PCB layouts apply to 801-342. USB orientation applies to 801-342 and 801-343



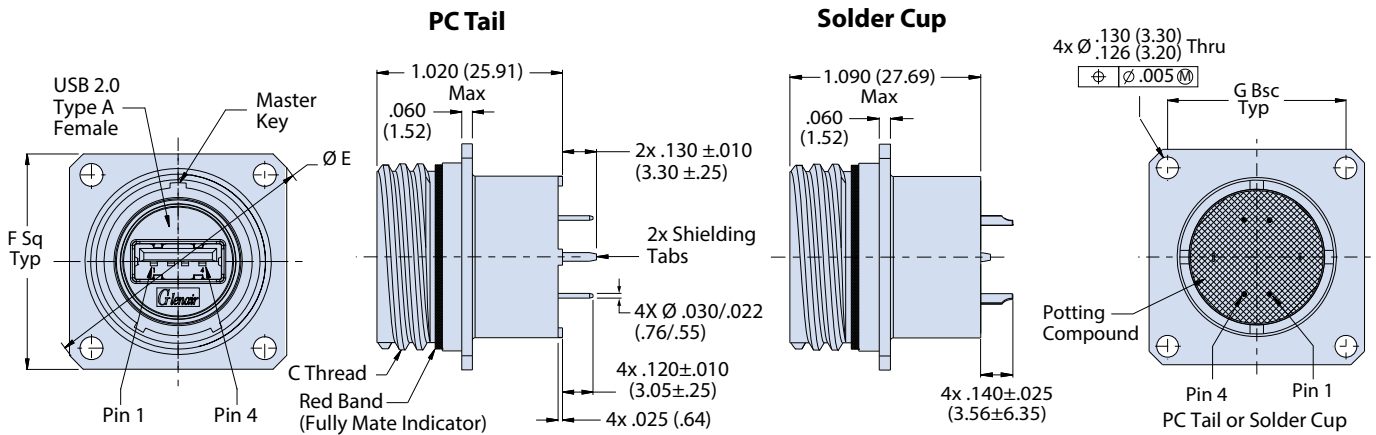


USB 2.0 TYPE A  
Series 801, 804 and 805 Mighty Mouse



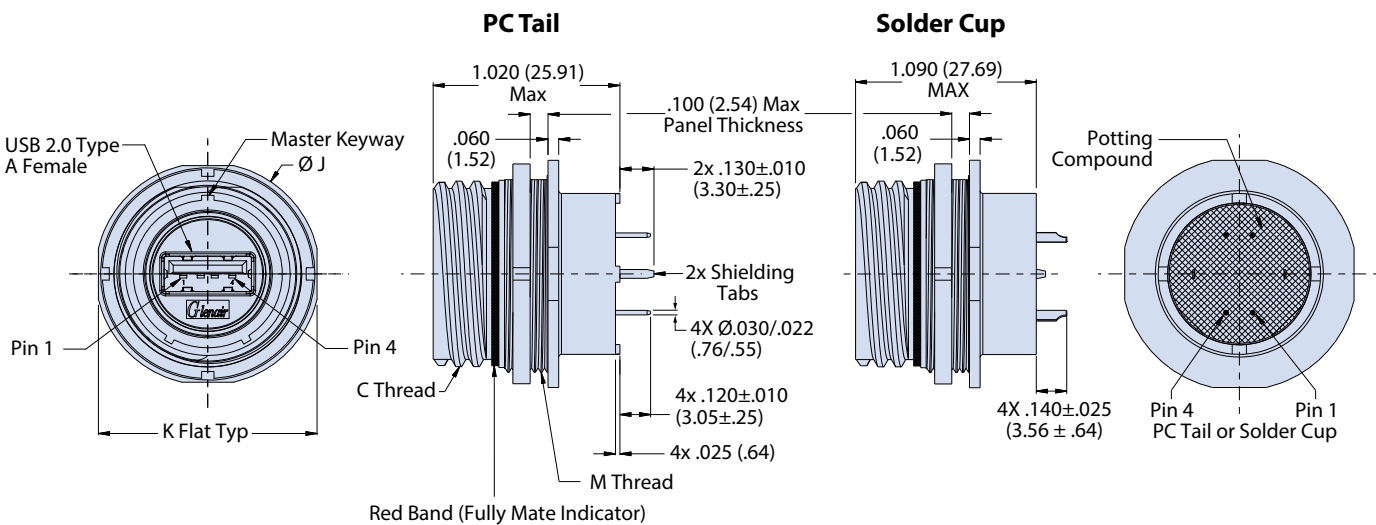
801-342 or 801-343 Receptacles with USB Female Interface to PC Tail or Solder Cup Termination

**SHELL STYLE 02 SQUARE FLANGE RECEPTACLE FOR 801-342 PC TAIL AND 801-343 SOLDER CUP**



Series 801 Double Start

**SHELL STYLE 07 JAM NUT RECEPTACLE FOR 801-342 PC TAIL AND 801-343 SOLDER CUP**



**NOTES**

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Material/Finish
  - Shell, jam nut: al alloy or cres
  - Seal/o-ring fluorosilicone
  - Sealant: RTV



USB 2.0 TYPE A

# Series 801, 804 and 805 Mighty Mouse



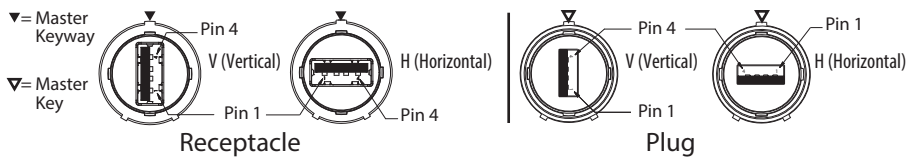
## 804-340 Coupler with USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

How To Order	
<b>Sample Part Number</b>	<b>804-340 - NF 07 -14 2 A A H</b>
<b>Series</b>	<b>804-340</b>
<b>Rear Accessory Option</b>	- = Accessory Thread and Teeth B = Integrated Boot Adaptor S = Integrated Banding Platform
<b>Material and Finish<sup>1</sup></b>	NF = Aluminum/Cadmium Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	01 = In Line Receptacle 00 = Jam Nut Receptacle, Front Panel Mount 07 = Jam Nut Receptacle, Rear Panel Mount 06 = Plug
<b>Shell Size</b>	14 = Shell Size 14
<b>USB Performance</b>	2 = USB 2.0
<b>USB Type</b>	A = Type A
<b>Alternate Key Positions<sup>1</sup></b>	A, B, C, D, E, F; Omit for single keyway (non polarized)
<b>USB Orientation</b>	H = Horizontal V = Vertical

Series 804 Push/Pull

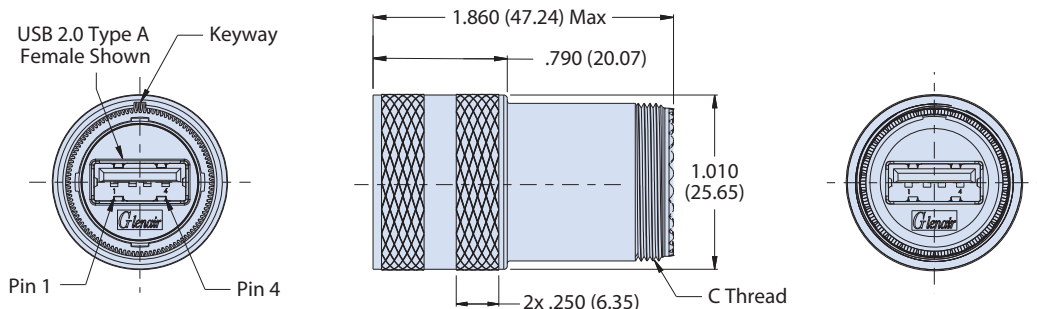
USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Desc.	Recommended Wire Size (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Grnd	22

### USB 2.0 ORIENTATION OPTIONS



Dimensions						
Size Shell	Mounting Style	Ø A	B Threads	C Threads	Ø D	K Threads
14	Front Mount	--	--	.9375-20 UNEF-2A	1.390 (35.31)	1.0620-20 UN-2A
	Rear Mount	1.325 (33.66)	1.0000-28 UN-2A	.9375-20 UNEF-2A	--	--

### SHELL STYLE 01 IN-LINE RECEPTACLE



### NOTES

- See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
- Meets IP67 sealing requirement in unmated condition

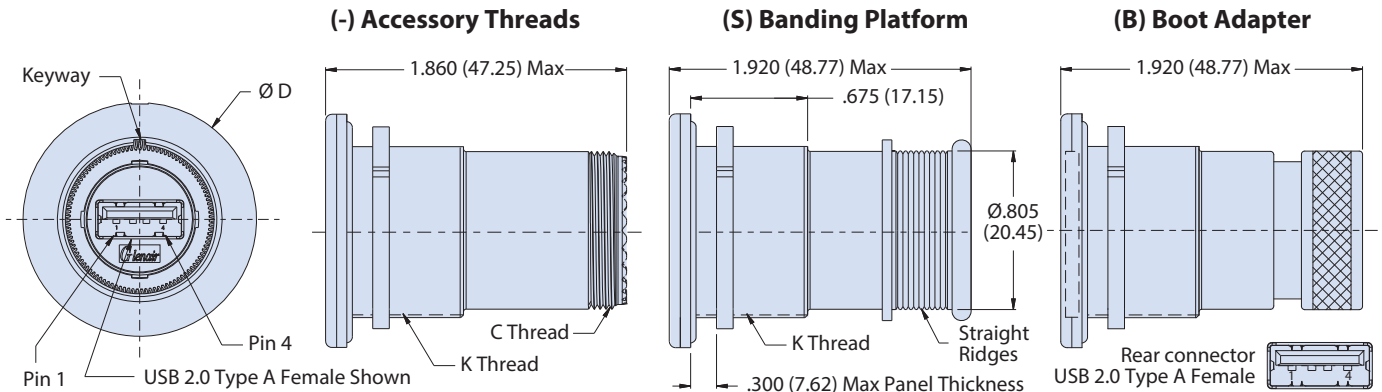


USB 2.0 TYPE A  
**Series 801, 804 and 805 Mighty Mouse**  
 804-340 Coupler with USB Male-to-Female (Plug)  
 or Female-to-Female (Receptacle)

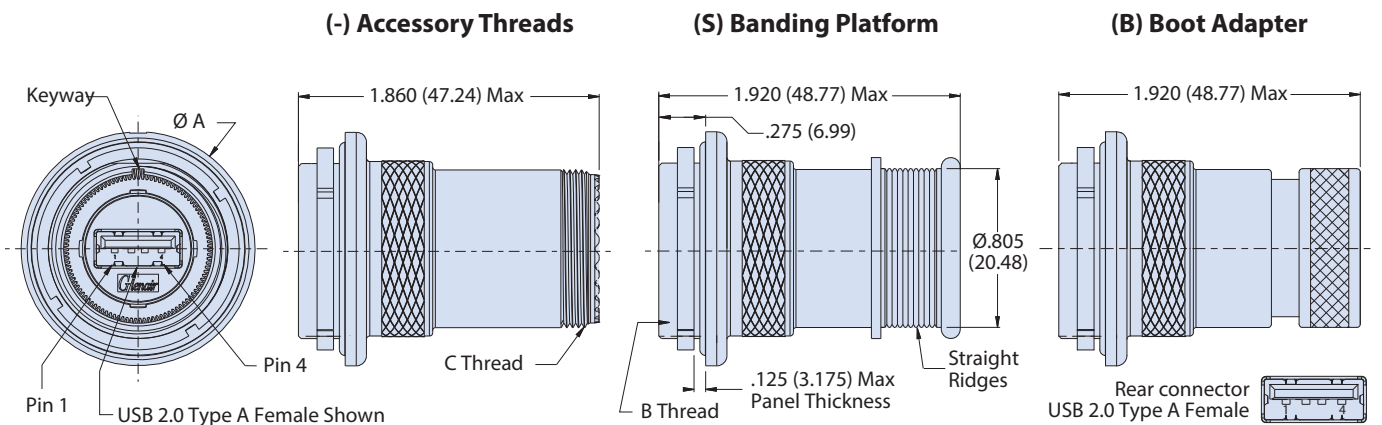


Series 804 Push/Pull

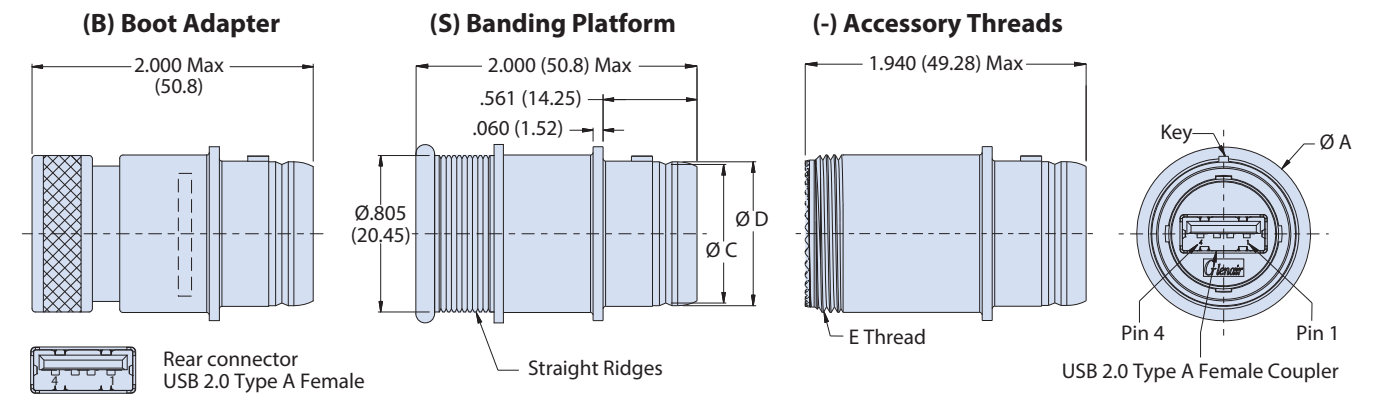
**SHELL STYLE 00 FRONT PANEL MOUNT JAM NUT RECEPTACLE**



**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**



**SHELL STYLE 06 PLUG**



Plug Dimensions				
Size Shell	Ø A Max	Ø C	Ø D	E Thd
14	.985 (25.02)	.768 (19.51)	.800 (20.32)	.9375-20 UNEF-2A



USB 2.0 TYPE A

# Series 801, 804 and 805 Mighty Mouse



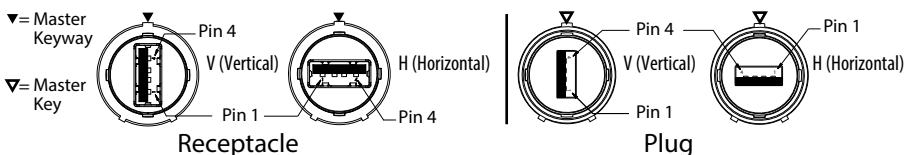
804-341 Connectors with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts

Series 804 Push/Pull

How To Order	
Sample Part Number	804-341 - NF 07 -14 2 A A H
Series	804-341
Rear Accessory Option	- = Accessory Thread and Teeth B = Integrated Boot Adaptor S = Integrated Banding Platform
Material and Finish <sup>1</sup>	NF = Aluminum/Cadmium, Olive Drab MT = Aluminum/Nickel PTFE M = Aluminum/Electroless Nickel ZNU = Aluminum/Black Zinc Nickel
Shell Style <sup>1</sup>	01 = In Line Receptacle 00 = Front Panel Mount Jam Nut Receptacle 07 = Rear Panel Mount Jam Nut Receptacle 06 = Plug
Shell Size	14 = Shell Size 14
USB Performance	2 = USB 2.0
USB Type	A = Type A
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F; Omit for single keyway (non polarized)
USB Orientation	H = Horizontal V = Vertical

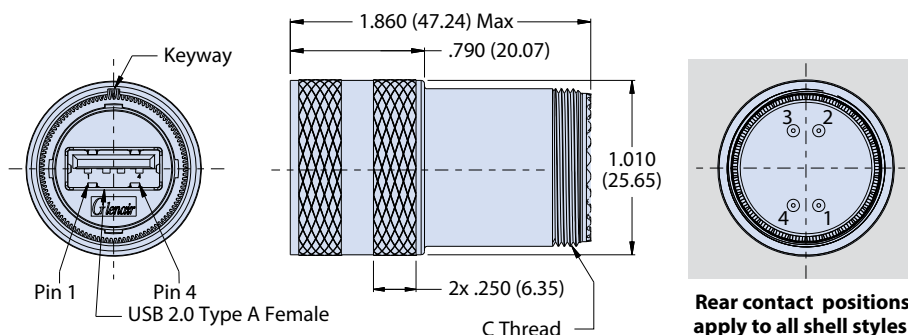
USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Desc.	Recommended Wire Size (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

### USB 2.0 ORIENTATION OPTIONS



Receptacle Dimensions						
Shell Size	Mounting Style	Ø A	B Threads	Ø D	K Threads	C Threads
14	Front Mount	-	-	1.390 (35.31)	1.0620-20 UN-2A	.9375-20 UNEF-2A
	Rear Mount	1.325 (33.66)	1.0000-28 UN-2A	-	-	.9375-20 UNEF-2A

### SHELL STYLE 01 IN-LINE RECEPTACLE



### NOTES

- See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
- Meets IP67 sealing requirement in unmated condition
- Supplied with size 23 crimp socket contacts (809-002 supplied loose)
- Material/finish
  - Shell, jam nut: al alloy or cres
  - Seal/o-ring: fluorosilicone

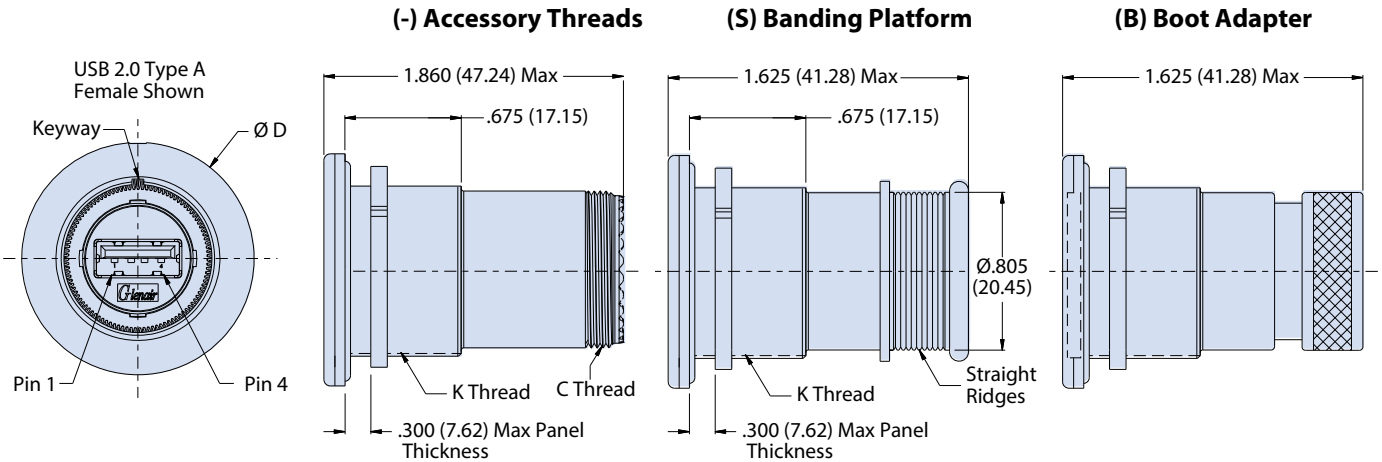


USB 2.0 TYPE A  
 Series 801, 804 and 805 Mighty Mouse  
 804-341 Connectors with USB Male (Plug) or Female  
 (Receptacle) to Crimp Removable Contacts

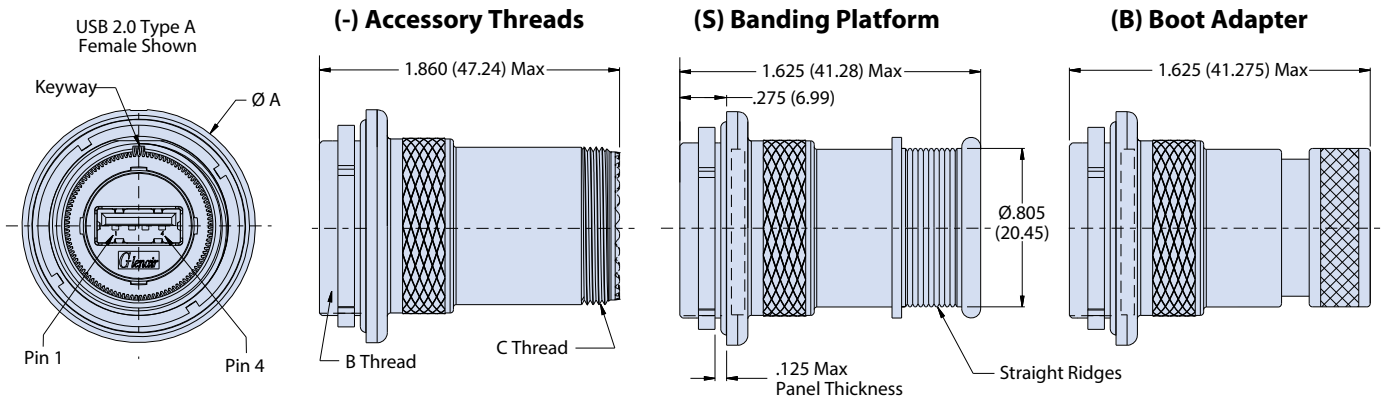


Series 804 Push/Pull

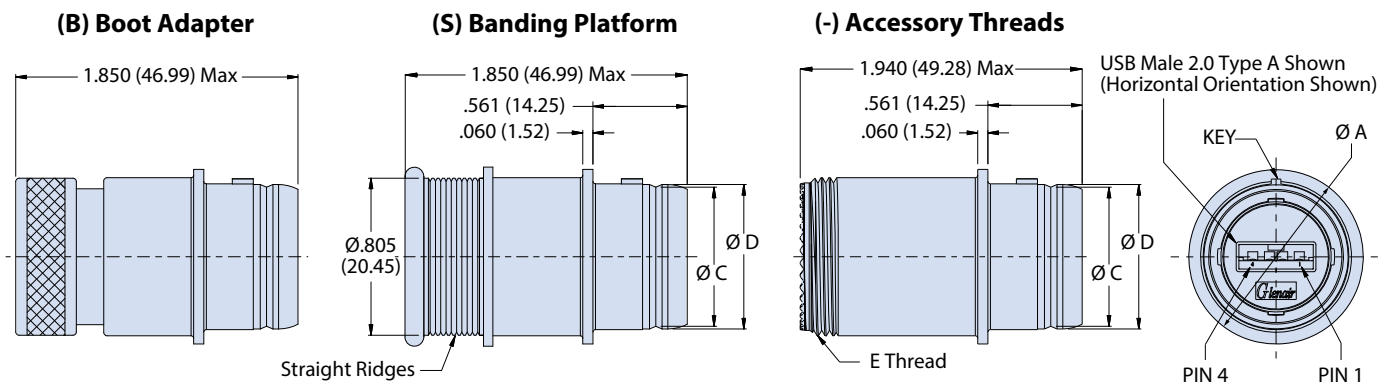
**SHELL STYLE 00 FRONT PANEL MOUNT JAM NUT RECEPTACLE**



**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**



**SHELL STYLE 16 PLUG**



Plug Dimensions				
Shell Size	Ø A	Ø C	Ø D	E Threads
14	.985 (25.02)	.768 (19.51)	.800 (20.32)	.9375-20 UNEF-2A



USB 2.0 TYPE A

# Series 801, 804 and 805 Mighty Mouse



804-342 or 804-343 Receptacles with USB Female Interface to PC Tail or Solder Cup Termination

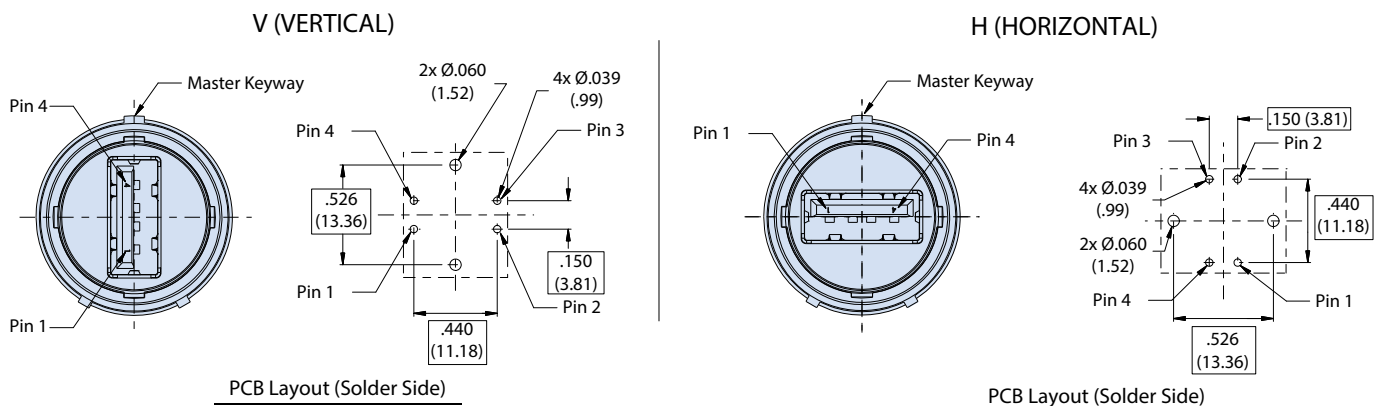
Series 804 Push/Pull

How To Order	
<b>Sample Part Number</b>	<b>804-342 NF 07 -14 2 A A H</b>
<b>Series</b>	804-342 = PC Tail 804-343 = Solder Cup
<b>Material and Finish<sup>1</sup></b>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	07 = Rear Panel Mount Jam Nut Receptacle 00 = Front Panel Mount Jam Nut Receptacle
<b>Shell Size</b>	14 = Shell Size 14
<b>USB Performance</b>	2 = USB 2.0
<b>USB Type</b>	A = Type A
<b>Alternate Key Positions<sup>1</sup></b>	A, B, C, D, E, F; Omit for single keyway (non polarized)
<b>USB Orientation</b>	H = Horizontal V = Vertical

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Size (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

Dimensions						
Shell Size	Mounting Style	Ø A	B Threads	Ø D	K Threads	C Threads
14	FRONT MOUNT	-	-	1.390 (35.31)	1.0620-20 UN-2A	.9375-20 UNEF-2A
	REAR MOUNT	1.325 (33.66)	1.0000-28 UN-2A	-	-	.9375-20 UNEF-2A

## USB 2.0 RECEPTACLE ORIENTATION OPTIONS AND PCB FOOTPRINT





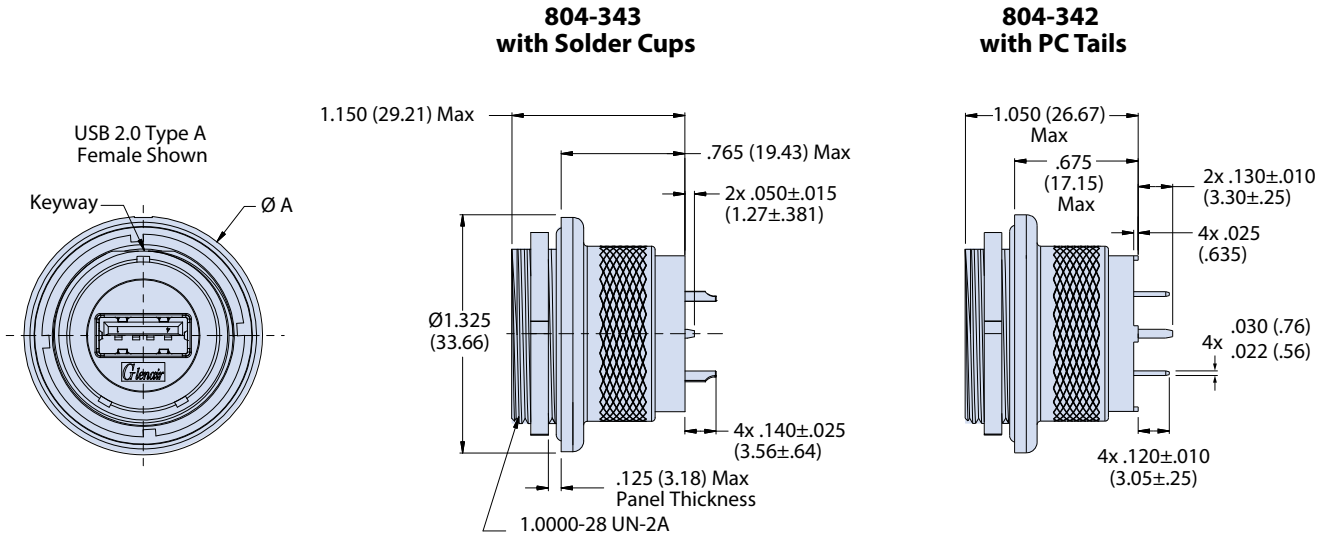
USB 2.0 TYPE A  
**Series 801, 804 and 805 Mighty Mouse**



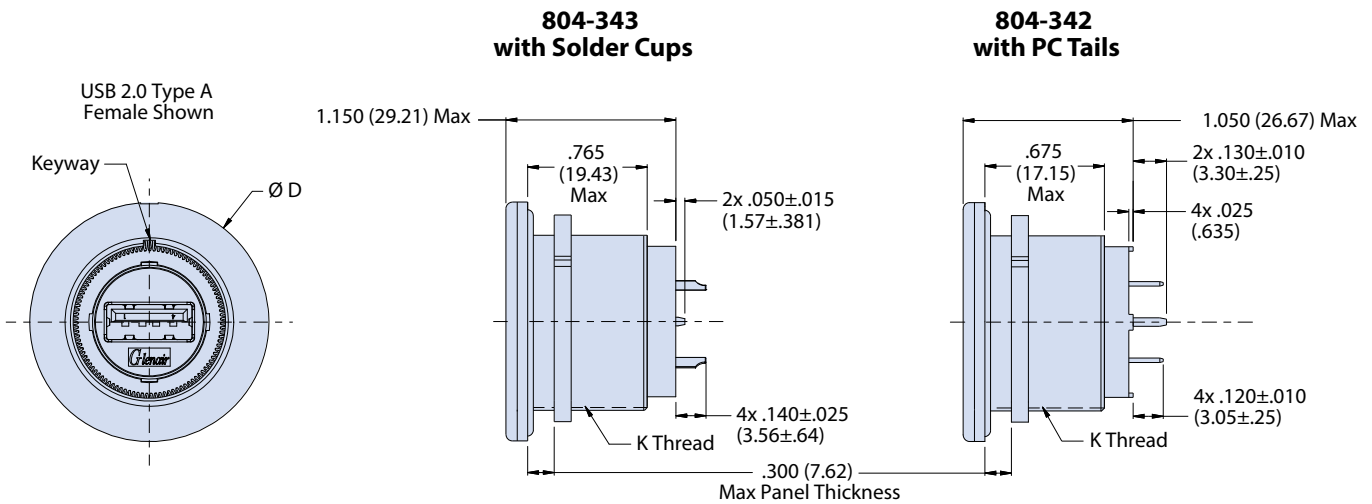
**804-342 or 804-343 Receptacles with USB Female Interface to PC Tail or Solder Cup Termination**

Series 804 Push/Pull

**SHELL STYLE 07 JAM NUT RECEPTACLE FOR 804-342 PC TAIL AND 804-343 SOLDER CUP**

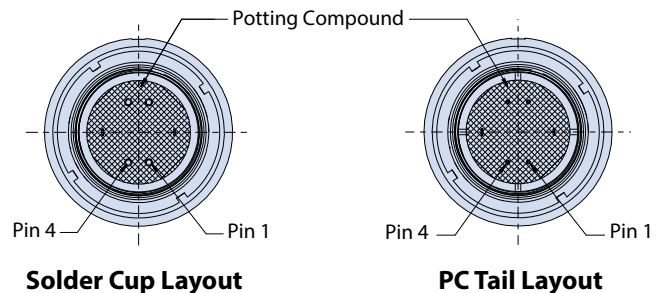


**SHELL STYLE 00 JAM NUT RECEPTACLE FOR 804-342 PC TAIL AND 804-343 SOLDER CUP,**



**NOTES**

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Material/finish
  - Shell, jam nut: al alloy or cres
  - Seal/o-ring: fluorosilicone
  - Sealant RTV





USB 2.0 TYPE A

Series 801, 804 and 805 Mighty Mouse



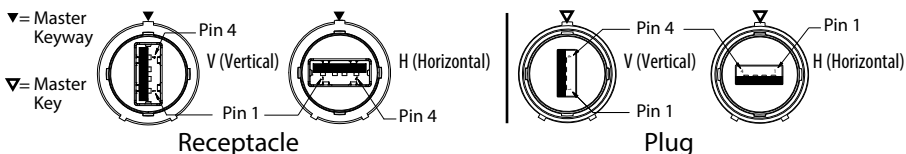
805-340 Coupler with USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

Series 805 Triple Start

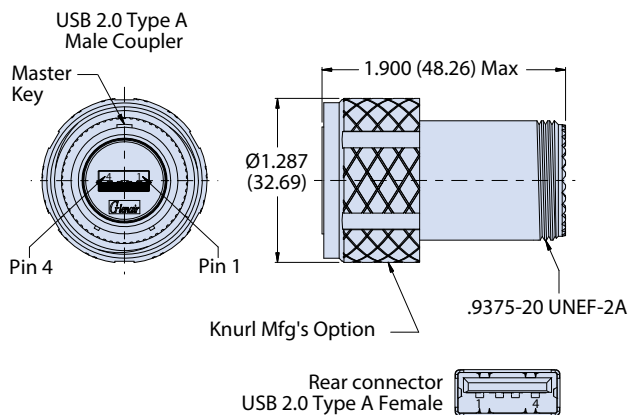
How To Order	
<b>Sample Part Number</b>	<b>805-340 - NF 07 -18 2 A A H</b>
<b>Series</b>	<b>805-340</b>
<b>Rear Accessory Option</b>	- = Accessory Thread and Teeth B = Integrated Boot Adaptor S = Integrated Banding Platform
<b>Material and Finish<sup>1</sup></b>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	01 = In Line Receptacle 02 = Front or Rear Panel Mount Square Flange Receptacle 12 = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts 22 = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts 07 = Rear Panel Mount Jam Nut Receptacle 16 = Plug
<b>Shell Size</b>	18 = Shell Size 18
<b>USB Performance</b>	2 = USB 2.0
<b>USB Type</b>	A = Type A
<b>Alternate Key Positions<sup>1</sup></b>	A, B, C, D, E, F
<b>USB Orientation</b>	H = Horizontal V = Vertical

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Desc.	Recommended Wire Size (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

**USB 2.0 ORIENTATION OPTIONS**

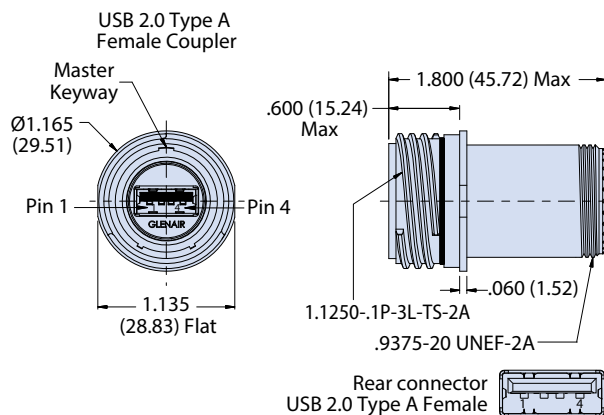


**SHELL STYLE 16 PLUG**



Accessory Thread Option

**SHELL STYLE 01 IN-LINE RECEPTACLE**



Accessory Thread Option



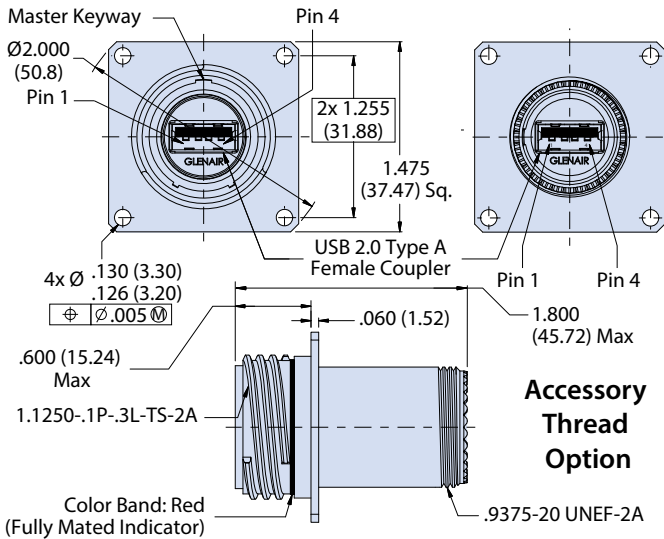


USB 2.0 TYPE A  
**Series 801, 804 and 805 Mighty Mouse**  
 805-340 Coupler with USB Male-to-Female (Plug)  
 or Female-to-Female (Receptacle)

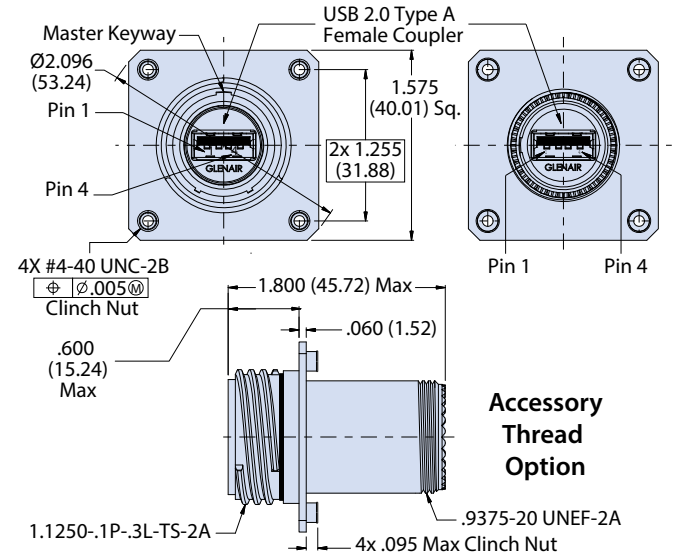


Series 805 Triple Start

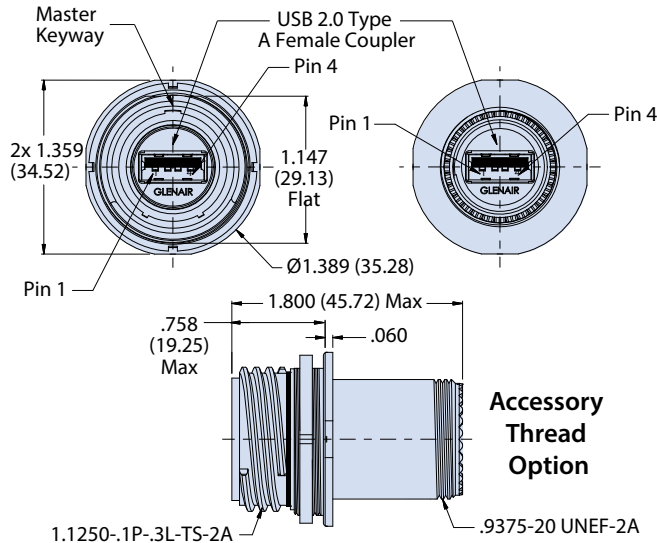
**SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE**



**SHELL STYLE 12 & 22 FRONT OR REAR PANEL MOUNT RECEPTACLE WITH CLINCH NUTS**



**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**

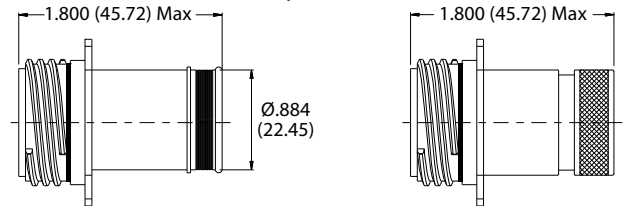


**REAR ACCESSORY OPTIONS (AVAILABLE FOR IN-LINE ALSO)**

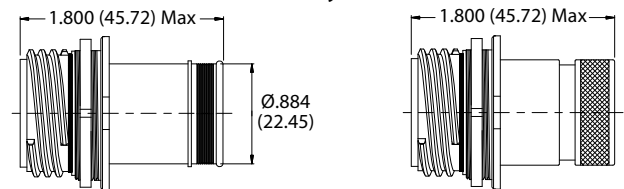
**Banding Platform (S)**

**Boot Adapter (B)**

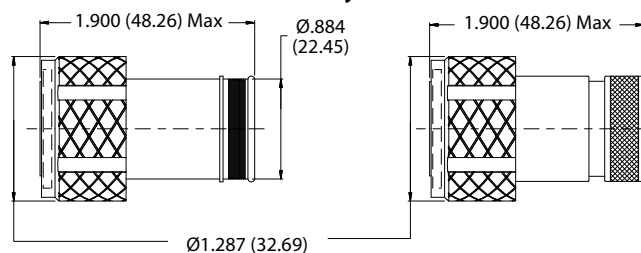
**Shell Style 02, 12, 22**



**Shell Style 07**



**Shell Style 16**



**NOTES**

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Plugs are male/female and receptacles are female/female



USB 2.0 TYPE A

# Series 801, 804 and 805 Mighty Mouse



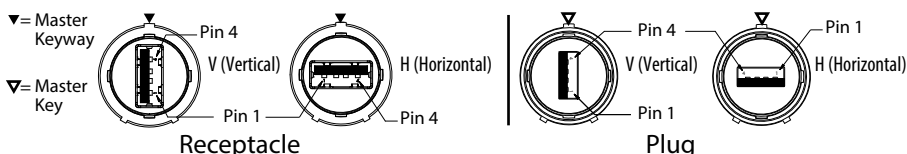
805-341 Connectors with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts

Series 805 Triple Start

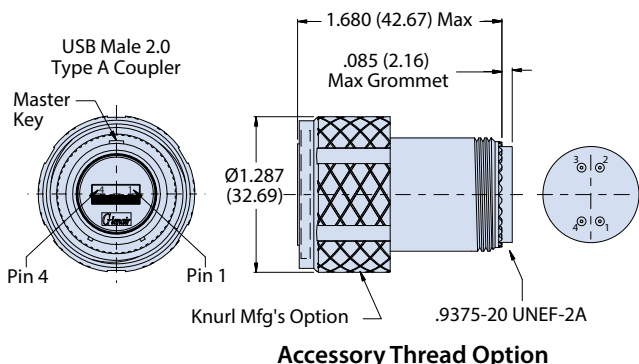
How To Order	
<b>Sample Part Number</b>	<b>805-341 - NF 07 -18 2 A A H</b>
<b>Series</b>	<b>805-341</b>
<b>Rear Accessory Option</b>	- = Accessory Thread and Teeth B = Integrated Boot Adaptor S = Integrated Banding Platform
<b>Material and Finish<sup>1</sup></b>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	01 = In Line Receptacle 02 = Front or Rear Panel Mount Square Flange Receptacle 12 = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts 22 = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts 07 = Rear Panel Mount Jam Nut Receptacle 16 = Plug
<b>Shell Size</b>	18 = Shell Size 18
<b>USB Performance</b>	2 = USB 2.0
<b>USB Type</b>	A = Type A
<b>Alternate Key Positions<sup>1</sup></b>	A, B, C, D, E, F
<b>USB Orientation</b>	H = Horizontal V = Vertical

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Desc.	Recommended Wire Size (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

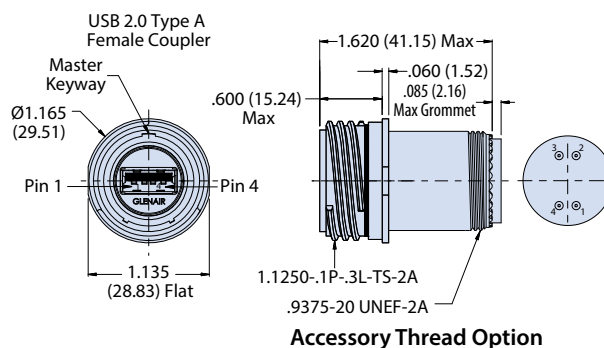
### USB 2.0 ORIENTATION OPTIONS



### SHELL STYLE 16 PLUG



### SHELL STYLE 01 IN-LINE RECEPTACLE





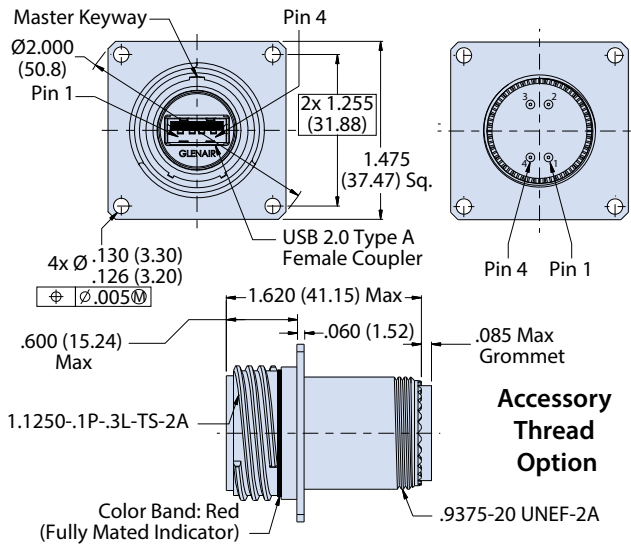
USB 2.0 TYPE A  
Series 801, 804 and 805 Mighty Mouse



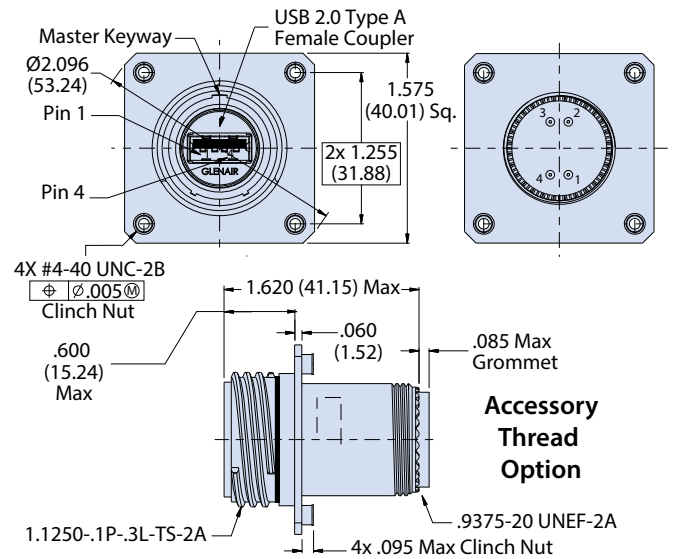
805-341 Connectors with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts

Series 805 Triple Start

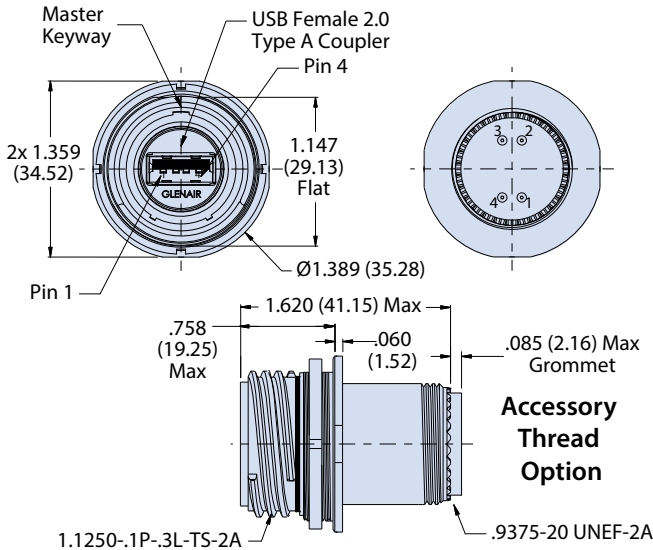
**SHELL STYLE 02 FRONT OR REAR PANEL MOUNT RECEPTACLE**



**SHELL STYLE 12 & 22 REAR PANEL MOUNT RECEPTACLE WITH CLINCH NUTS**



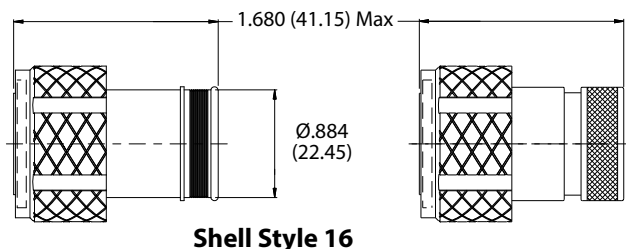
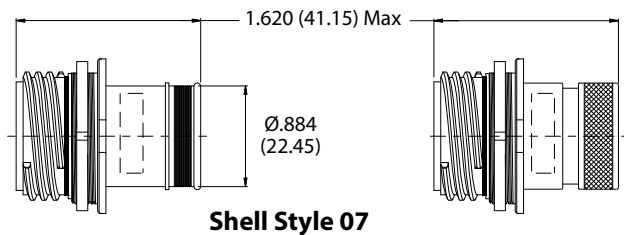
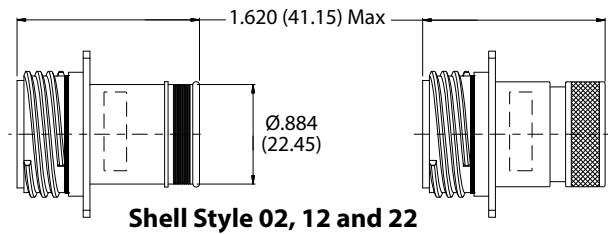
**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**



**REAR ACCESSORY OPTIONS (AVAILABLE FOR IN-LINE ALSO)**

**Banding Platform (S)**

**Boot Adapter (B)**



**NOTES**

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Supplied with size 23 crimp socket contacts (809-002 supplied loose)



# USB 2.0 TYPE A Series 801, 804 and 805 Mighty Mouse



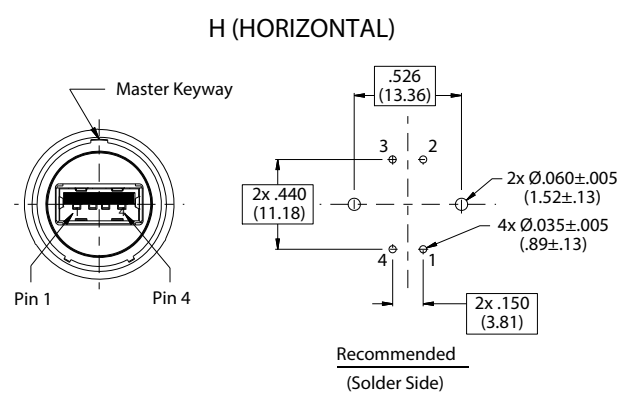
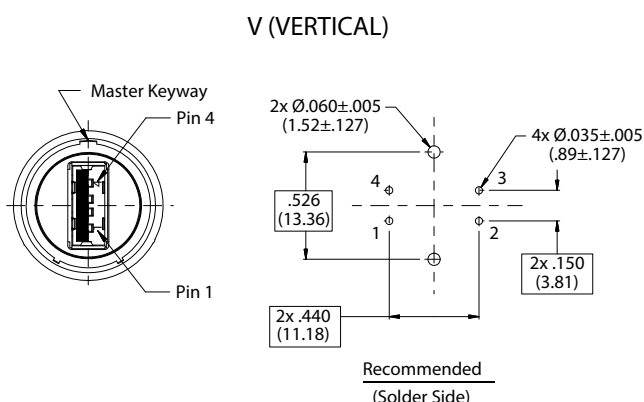
## 805-342 Receptacle with USB Female Interface to PC Tail Termination

Series 805 Triple Start

How To Order	
<b>Sample Part Number</b>	<b>805-342 NF 07 -18 2 A A H</b>
<b>Series</b>	<b>805-342 = PC Tail</b>
<b>Material and Finish<sup>1</sup></b>	<b>NF</b> = Aluminum/Cadmium, Olive Drab <b>M</b> = Aluminum/Electroless Nickel <b>MT</b> = Aluminum/Nickel PTFE <b>ZNU</b> = Aluminum/Black Zinc Nickel
<b>Shell Style<sup>1</sup></b>	<b>02</b> = Front or Rear Panel Mount Square Flange Receptacle <b>12</b> = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts <b>22</b> = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts <b>07</b> = Rear Panel Mount Jam Nut Receptacle
<b>Shell Size</b>	<b>18</b> = Shell Size 18
<b>USB Performance</b>	<b>2</b> = USB 2.0
<b>USB Type</b>	<b>A</b> = Type A
<b>Alternate Key Positions<sup>1</sup></b>	<b>A, B, C, D, E, F</b>
<b>USB Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Size (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

### USB 2.0 RECEPTACLE ORIENTATION OPTIONS AND PCB FOOTPRINT (PARTIAL VIEWS SHOWN)





USB 2.0 TYPE A

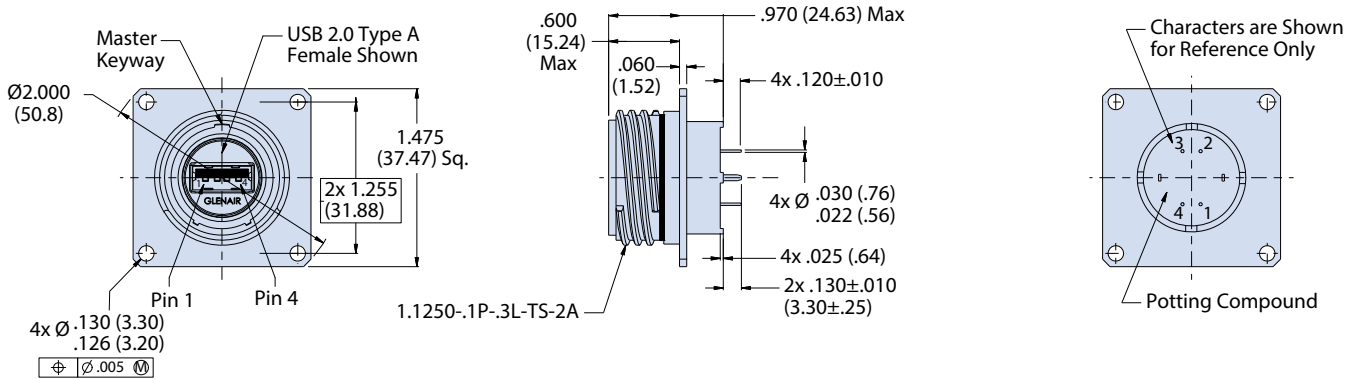
Series 801, 804 and 805 Mighty Mouse



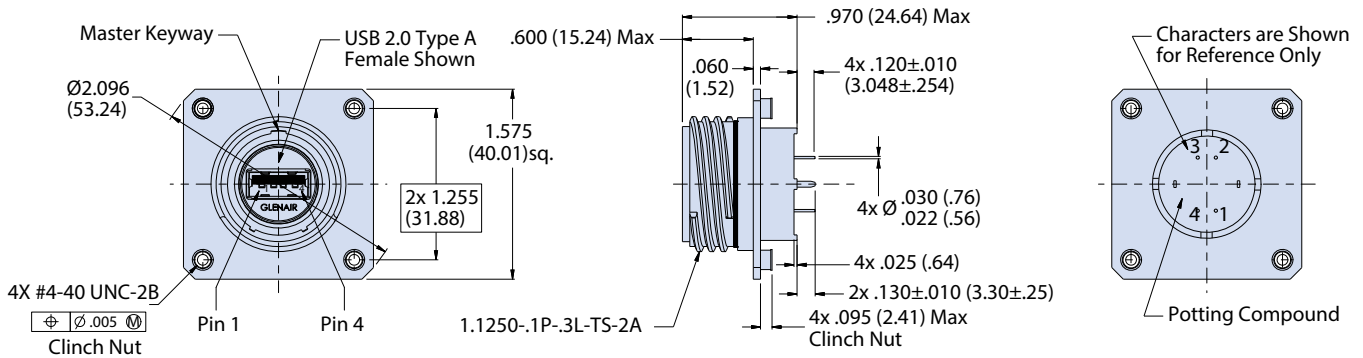
805-342 Receptacle with  
USB Female Interface to PC Tail Termination

Series 805 Triple Start

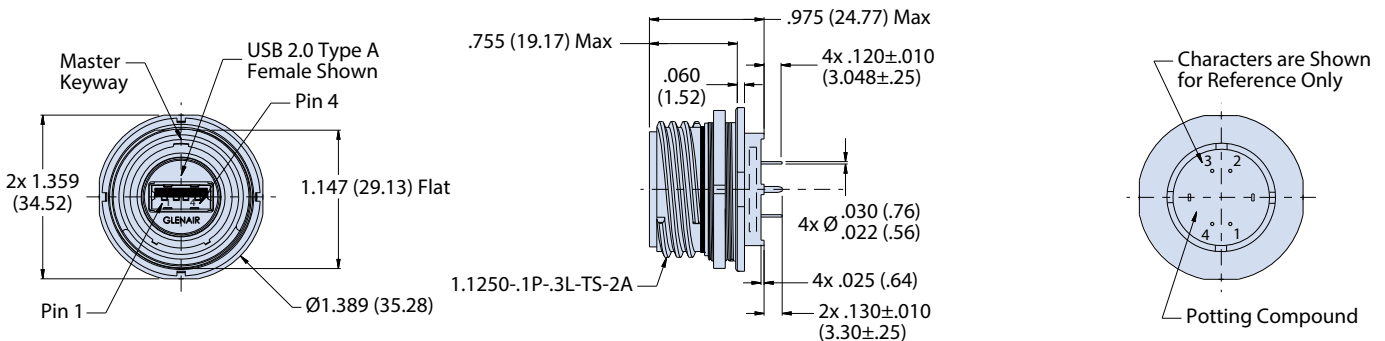
**SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE**



**SHELL STYLE 12 AND 22 REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH CLINCH NUTS**



**SHELL STYLE 07 JAM NUT**



**NOTES**

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Material/finish
  - Shell, jam nut: al alloy or cres
  - Seal/o-ring: fluorosilicone
  - Sealant: RTV



USB 2.0 TYPE A

Series 801, 804 and 805 Mighty Mouse



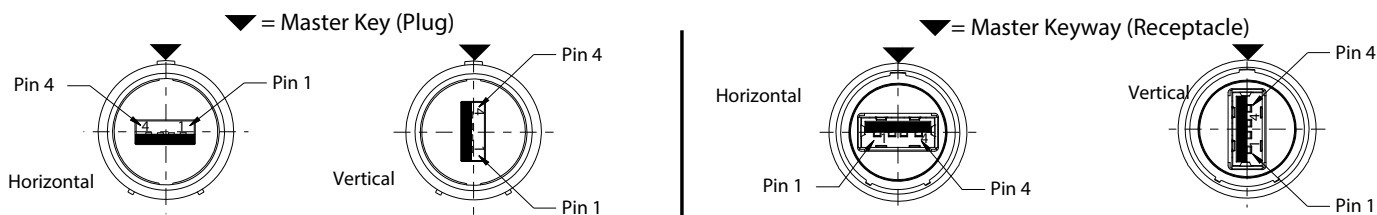
805-343 Receptacle with USB Female Interface to Solder Cup Termination

Series 805 Triple Start

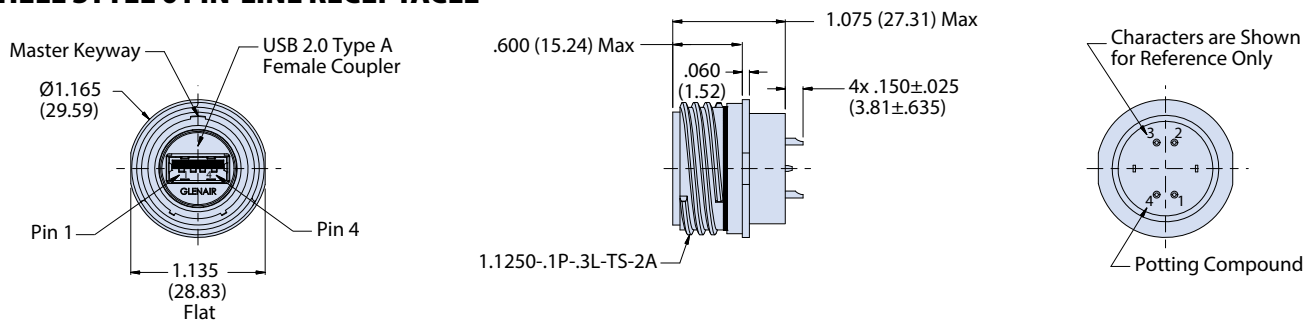
How To Order								
Sample Part Number	805-343	NF	07	-18	2	A	A	H
Series	805-343 = Solder Cup							
Material and Finish <sup>1</sup>	NF = Aluminum/Cadmium, Olive Drab M = Aluminum/Electroless Nickel MT = Aluminum/Nickel PTFE ZNU = Aluminum/Black Zinc Nickel							
Shell Style <sup>1</sup>	01 = In-line 02 = Front or Rear Panel Mount Square Flange Receptacle 12 = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts 22 = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts 07 = Rear Panel Mount Jam Nut Receptacle							
Shell Size	18 = Shell Size 18							
USB Performance	2 = USB 2.0							
USB Type	A = Type A							
Alternate Key Positions <sup>1</sup>	A, B, C, D, E, F							
USB Orientation	H = Horizontal V = Vertical							

USB 2.0 Wiring				
Pin	Name	Cable Color (USB)	Description	Recommended Wire Size (AWG)
1	(V Bus)	Red	+5 V	22
2	(D-)	White	Data -	28
3	(D+)	Green	Data +	28
4	(GND)	Black	Ground	22

### USB 2.0 ORIENTATION OPTIONS



### SHELL STYLE 01 IN-LINE RECEPTACLE





USB 2.0 TYPE A

Series 801, 804 and 805 Mighty Mouse

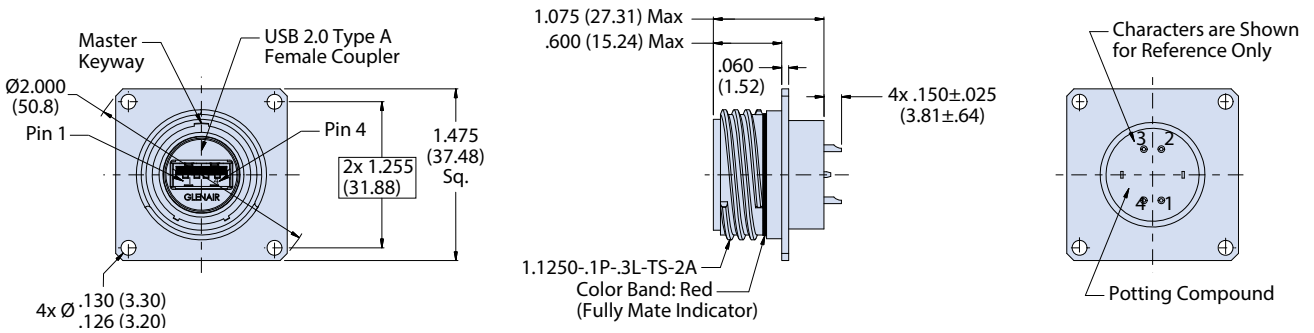


805-343 Receptacle with

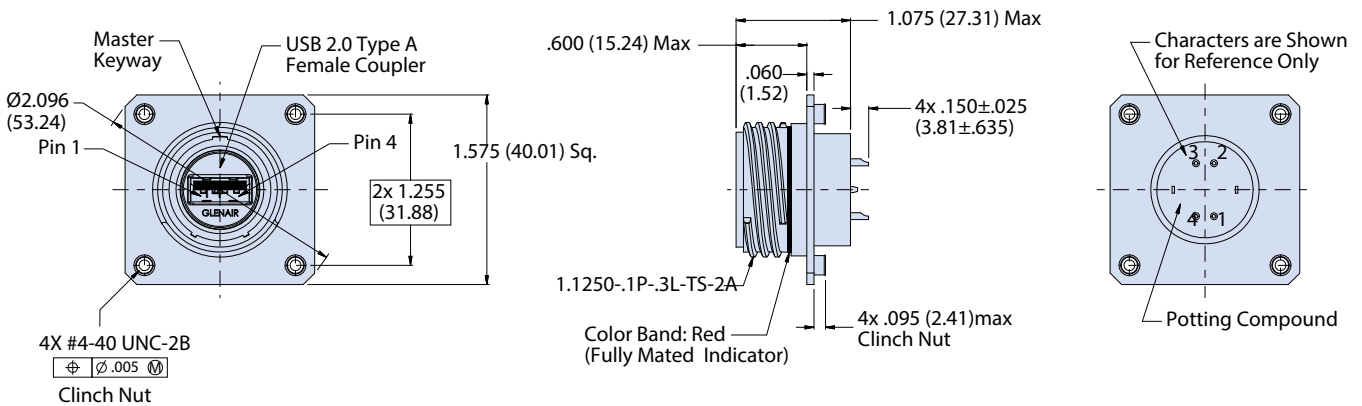
USB Female Interface to Solder Cup Termination

Series 805 Triple Start

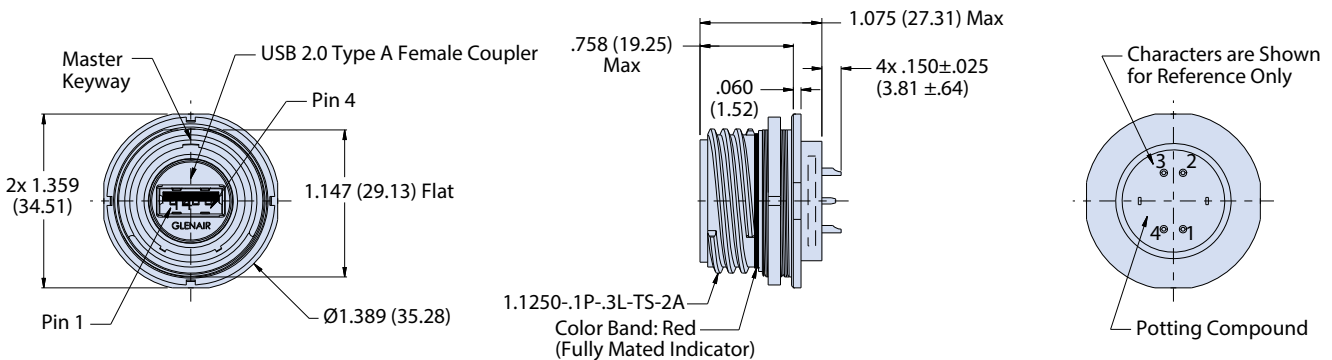
**SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE**



**SHELL STYLE 12 AND 22 REAR PANEL MOUNT RECEPTACLE WITH CLINCH NUTS**



**SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE**



**NOTES**

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition.
3. Max solder wire diameter of .025 inches
4. Material/finish
  - Shell, jam nut: al alloy or cres
  - Seal/o-ring: fluorosilicone
  - Sealant: RTV

TOOLS AND  
ACCESSORIES

# SUPERSEAL™

Tools and Accessories for the SuperSeal™  
family of connectors



Nobody can grasp the ins-and-outs of interconnect tool design and manufacturing without a full understanding of cable harness assembly. At Glenair, we not only manufacture the connectors, backshells, cables and enclosures which go into creating interconnect cable harnesses, we run a top-flight cable assembly service of our own. We've drawn on this extensive experience to design and build a complete family of specialized backshell assembly tools for most Mil-Standard circular connectors, as well as connector wrenches, universal connector holding tools and braid termination tools for production use and field maintenance.



Glenair, Inc.  
1211 Air Way  
Glendale, CA 91201-2497  
818-247-6000  
sales@glenair.com  
www.glenair.com





RJ45 AND USB 2.0  
**Contacts, Tools, and Accessories**  
 Product Selection Guide



**Contacts and Termination Tools**

Tools, Contacts and Contact Installation Instructions  
 Band-Master ATS Manual Banding Tools

Page M-2  
 Page M-6



**MIL-DTL-38999 Type Accessories**

Backshells and Recommended Shrink Boots  
 Covers

Page M-8  
 Page M-11

**Series ITS (5015 Intermountable) Accessories**

Covers

Page M-14

For backshells and Recommended Shrink Boots  
 see ITS300H for RJ45 or ITS340H for USB Applications



**Series IPT MIL-DTL-26482 Type Accessories**

Covers

Page M-15

For backshells and Recommended Shrink Boots  
 see IPT300H for RJ45 or IPT340H for USB applications

**MIL-DTL-28840 Type Accessories**

Backshells  
 Covers

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 Page M-18



**Series 80 Mighty Mouse Accessories**

Backshells and Recommended Shrink Boots  
 Covers

Page M-19  
 Page M-22





RJ45 CAT 5E/6A ETHERNET

# MIL-DTL-38999 Series III Type Connectors



## 637-235 Environmental feedthrough backshell for RJ45 Series connectors



Part Number Development				
Sample Part Number	<b>637-235</b>	<b>M</b>	<b>17</b>	<b>- 1</b>
Basic Number	637-235 Environmental Feedthrough Backshell for RJ45 Series Connectors			
Finish	See Material and Finish table			
Shell Size	See Table I			
Cable Range	- = Standard Cable Ø .312/.187 <b>A</b> = Cable Ø .400/.256 <b>B</b> = Cable Ø .462/.400			
Length Indicator	See Table III (Omit For Standard Length)			

### NOTES

- Glenair 600 series backshell assembly tools are recommended for assembly and installation.
- Material/finish:
  - Adapter, coupling nut, compression ring, split washer and nut: see Table I
  - O-ring and grommet: fluorosilicone
  - Anti-decoupling device - corrosion resistant material/na

Material and Finish <sup>1</sup>	
<b>M</b>	Aluminum/Electroless Nickel
<b>NF</b>	Aluminum/Cadmium, Olive Drab, over Electroless Nickel
<b>ZN</b>	Aluminum/ Zinc NI, Olive Drab
<b>ZE</b>	
<b>ZR</b>	Aluminum/Black Zinc-Nickel
<b>MT</b>	Aluminum/Nickel PTFE
<b>P2</b>	Aluminum/Nickel Plate Per AMS-QQ-N-290
<b>XM</b>	Composite/Electroless Nickel
<b>XMT</b>	Composite/Nickel-PTFE
<b>XO</b>	Composite/No Finish
<b>XW</b>	Composite/Cadmium, Olive Drab, Over Electroless Nickel
<b>Z1</b>	Stainless Steel/Passivate
<b>ZC</b>	Stainless Steel/Zinc Cobalt
<b>ZL</b>	Stainless Steel/ Electro-Deposited Nickel
<b>ZW</b>	Stainless Steel/Cad Olive Drab Over Nickel
<b>AB</b>	Bronze/None (Clean Only)

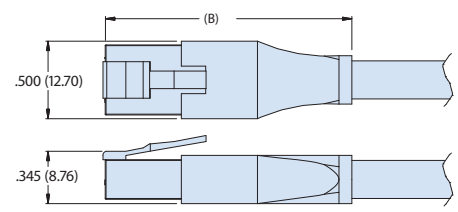
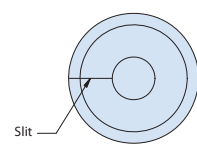
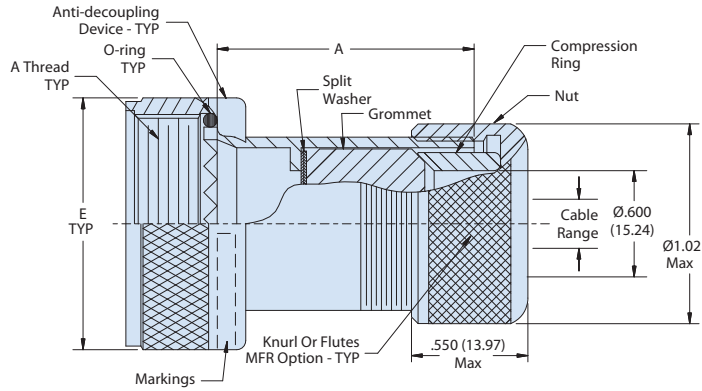


Table I			
Shell Size	A Thread	E Max	
		in	mm
<b>17</b>	M25 X 1.0-6H	1.42	36.1
<b>19</b>	M28 X 1.0-6H	1.54	39.1

Table III				
Shell Size	A		B REF	
	in	mm	in	mm
<b>1</b>	0.75	19.05	0.62	15.75
<b>2</b>	1.00	25.40	0.87	22.10
<b>3</b>	1.25	31.75	1.12	28.45
<b>4</b>	1.50	38.10	1.37	34.80
<b>Standard Length</b>	1.74	44.20	1.62	41.15



# RJ45 AND USB 2.0 Contacts, Tools, and Accessories



## Pin and Socket Contacts for SuperSeal™ 38999 Type, Series ITS and Series IPT Connectors

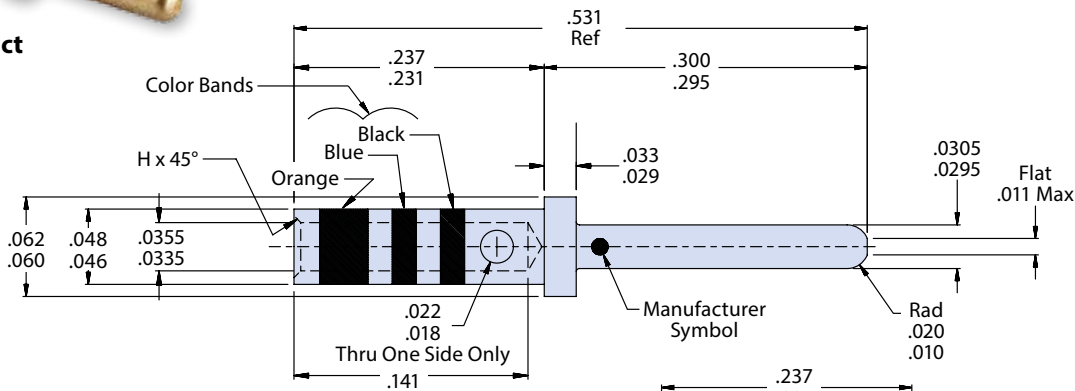
Contacts and Termination Tools

### SIZE #22 STANDARD DUTY ELECTRICAL PIN AND SOCKET CONTACTS FOR USE WITH SUPERSEAL™ 38999 TYPE, ITS 301, ITS 345, IPT 301 AND IPT 345 SERIES CONNECTORS

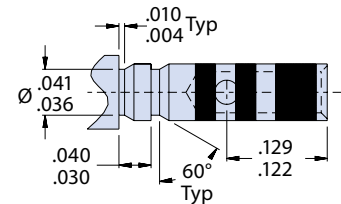
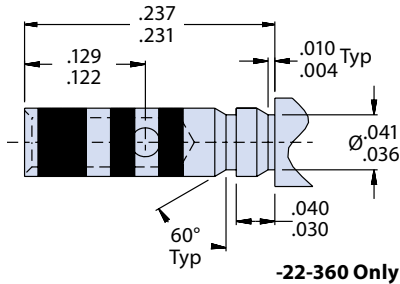
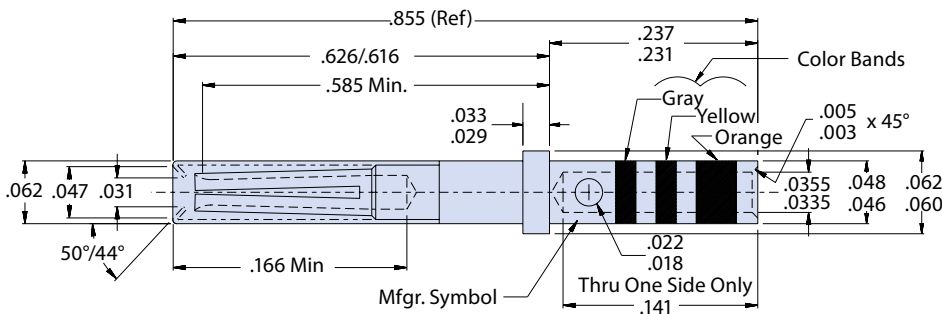


	Mating End Size	Wire Accomodation	Military Part Number	Glenair Part Number
Pin	22	22-28 AWG	<b>M39029/58-360</b>	<b>850-002-22-360</b>
Socket	22	22-28 AWG	<b>M39029/56-348</b>	<b>850-001-22-348</b>

#### Pin Contact



#### Socket Contact



#### Termination Tools

Size	Part Number	Military Number	AWG Handling	Crimp Tool	Positioner	Insertion Tool	Extraction Tool
22	850-002-22-360	M39029/58-360	22, 24, 26, 28	M22520/2-01	M22520/2-09	M81969/14-01	M81969/14-01
				M22520/7-01	M22520/7-07	M81969/8-01	M81969/8-02
Socket	850-001-22-348	M39029/56-348	22, 24, 26, 28	M22520/2-01 M22520/7-01	M22520/2-07 M22520/7-05	M81969/14-01 M81969/8-01	M81969/14-01 M81969/8-02



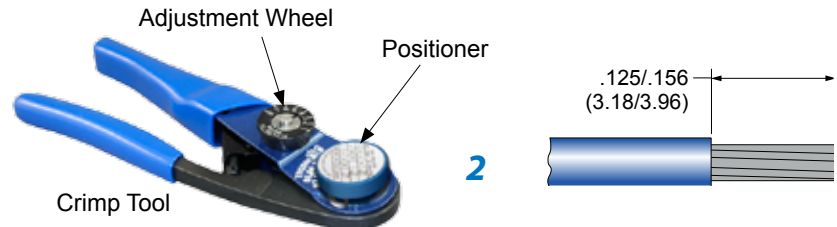
# RJ45 AND USB 2.0 Contacts, Tools, and Accessories

## Size #22 Crimp Contact Instructions



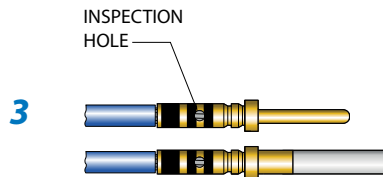
### HOW TO TERMINATE, INSTALL AND REMOVE SIZE #22 CONTACTS

**1 Set Up Series M22520 Crimp Tool.** See pin and socket contact selection guide for correct tools based on contact part numbers and tool codes. Install proper positioner into crimp tool. The label on the positioner shows the proper tool setting for each wire size. Turn the adjustment wheel to the correct setting.



**2 Strip Wire.** Remove wire insulation, taking care to avoid nicking or cutting wire strands. Strip wire to length shown. Holding wire by insulation, twist strands together to form a neat bundle.

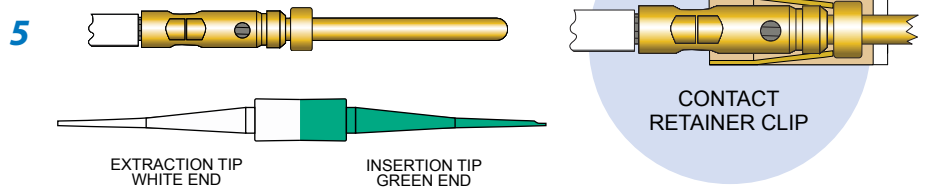
**3 Insert wire** into contact. The wire should be visible in the inspection hole.



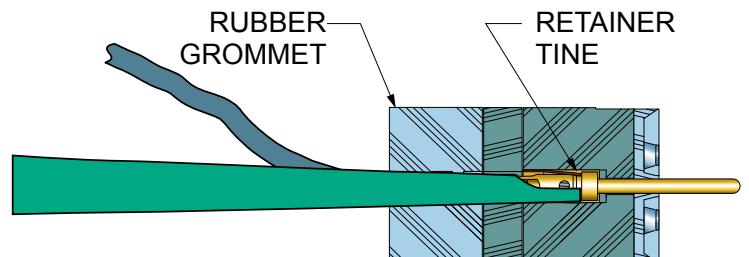
**4** Insert wire and contact into crimp tool as shown. Make sure that the contact is fully inserted into the tool. Squeeze handle completely. The ratchet mechanism will not allow a partial crimp. Release handle and remove contact.



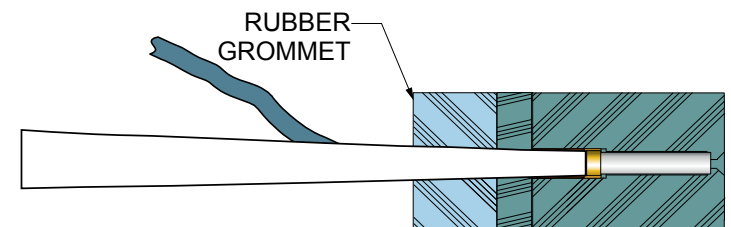
**5 Inspect crimped contact.** Wire should be fully inserted and the crimp should be uniform in appearance.



**6 Install contact into connector.** Slide green end of insertion/extraction tool over wire insulation until it bottoms against the contact shoulder. Insert tool/contact/wire into contact cavity, being careful to avoid damage by properly aligning the contact with the cavity. Push forward until contact retention clip snaps into position. Gently pull on wire to confirm contact retention. Fill unused contact cavities with uncrimped contacts followed by the proper MS27488 sealing plug.



**7 Contact Extraction.** Use the white end of appropriate insertion/extraction tool. First, push the wire into the groove of the extraction tool's tip. Slide the tip of the tool over the jacketed wire into the connector cavity. Push the tool until the tip bottoms in the connector. A straight push is best. Avoid wiggling or rocking the tip, as this may damage the cavity. Pinch the wire between your thumb and the white plastic grip and slide the tool and contact out of the connector.



Contact Size	Seal Plug
22, 22M, 22D	MS27488-22



RJ45 AND USB 2.0

# Contacts, Tools, and Accessories



## Size #23 Crimp Contact for Mighty Mouse Series 801, 804, and 805 Micro and Standard USB Connectors

Contacts and Termination Tools

### SIZE #23 CRIMP CONTACTS FOR USE WITH 801-084, 801-085, 801-341, 804-084, 804-085, 804-341 805-084, 805-085 AND 805-341 SERIES 80 MIGHTY MOUSE CONNECTORS

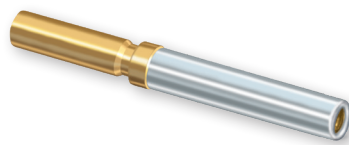
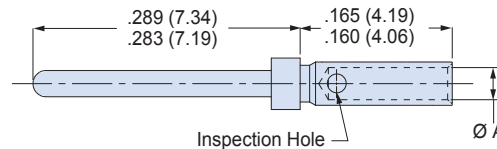


#23 Pin Contact

Standard size #23 contacts accept #22 to #28 AWG wire. Choose "small bore" versions for #26 to #30 AWG wire. For thermocouple applications, specify alumel or chromel contacts. Contacts are bulk packaged. Terminate with standard M22520 crimper with special positioner.

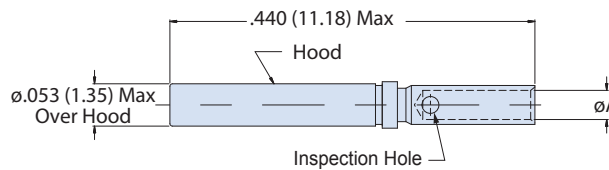
Contact Type	Wire Size	Material	Part Number	Ø A		Color Band	Tool Code
				In.	mm.		
Pin	#22 – #28	BeCu	809-001	.035 Max	.902	None	A, C
Socket	#22 – #28	BeCu	809-002	.035 Max	.902	None	A, C

#### PIN (809-001)



#23 Socket Contact

#### Socket (809-002)



Crimp Tensile Strength		
Values are in pounds and are minimums.		
Wire Gage	Silver or Tin Coated Copper Wire	Nickel Coated Copper Wire
#22	12	8
#24	8	6
#26	5	3
#28	3	2

#### Material and Finish

Beryllium copper alloy per ASTM B196 or B197, 50 microinches gold plated per ASTM B 488 over nickel underplate. Crimp area may have less plating.

Thermocouple contacts: alumel or chromel alloy, unplated, per ANSI 96.1

Socket contact hood: stainless steel, passivated per AMS-QQ-P-35.

#### Specifications

Current Rating: 5 Amps maximum

Voltage Drop (at 5 Amps and 25° C): 70 millivolts maximum

Temperature Range: -65° to + 200° C

### MINIATURE ADJUSTABLE CRIMP TOOL AND POSITIONER



Standard M22520/2-01 crimper for use with standard size #23 Mighty Mouse contacts. Performs precision eight-indent crimps for gas-tight wire terminations and excellent tensile strength. Adjustment wheel has 8 settings. Ratchet mechanism prevents improper crimps. Length is 6.75 inches, weight is approx. 10 oz. Bayonet-type positioner 809-005 hold contacts at correct height for crimping. Check calibration with M22520/3 gages.

Tool	Part Number	Military Part Number	Daniels Part Number	Tool Code
Crimp Tool	809-015	M22520/2-01	AFM8	A
Positioner	809-005	(none)	K1461	C



RJ45 AND USB 2.0

# Contacts, Tools, and Accessories



## Size #23 Crimp Contact Instructions for Mighty Mouse Series 801 Micro and Standard USB Connectors

### HOW TO TERMINATE, INSTALL AND REMOVE SIZE #23 CONTACTS

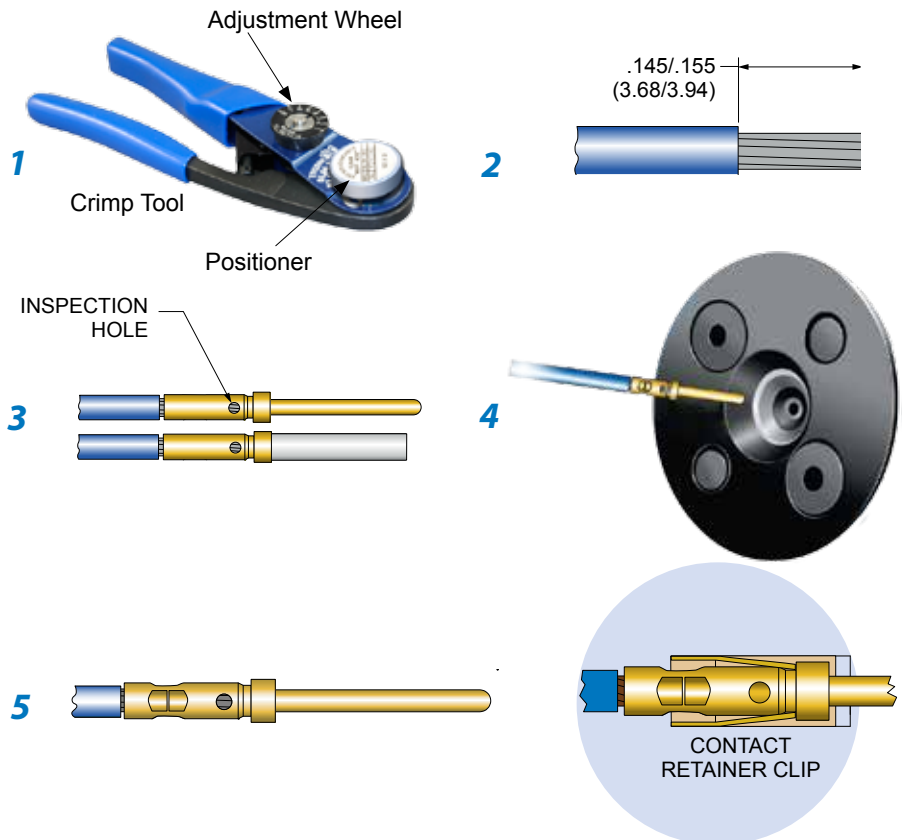
**1 Set Up Crimp Tool.** Install proper positioner into crimp tool. The label on the positioner shows the proper tool setting for each wire size. Turn the adjustment wheel to the correct setting.

**2 Strip Wire.** Remove wire insulation, taking care to avoid nicking or cutting wire strands. Strip wire to length shown.

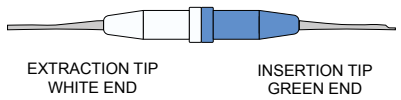
**3 Insert wire** into contact. The wire should be visible in the inspection hole.

**4** Insert contact into crimp tool as shown. Make sure that the contact is fully inserted into the tool. Squeeze handle completely. The ratchet mechanism will not allow a partial crimp. Release handle and remove contact.

**5 Inspect crimped contact.** Wire should be fully inserted and the crimp should be uniform in appearance.

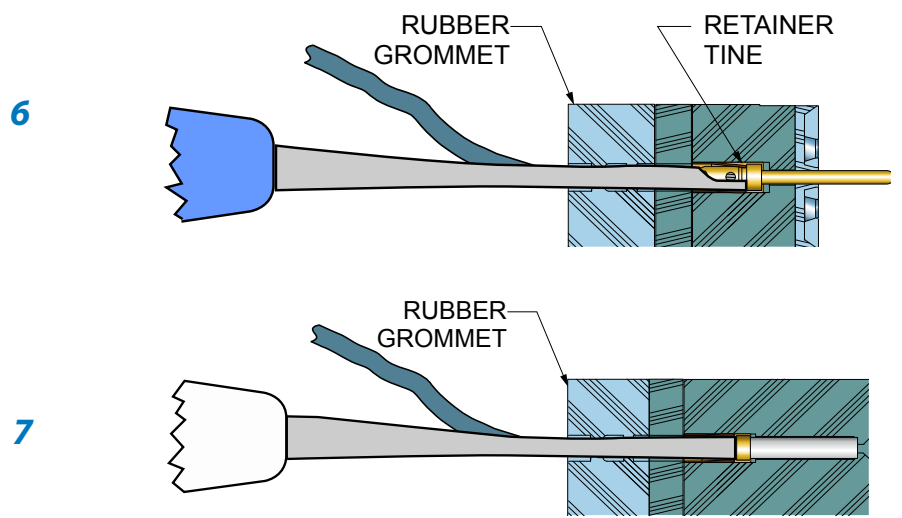


#### Insertion/Extraction Tool 809-088



**6 Install contact into connector.** Push the contact through the rear grommet until the contact locks into place. This can usually be done by hand without the need for a tool. If the wire gage is #26 or smaller, a tool is helpful. There are two techniques for installing contacts with a tool. One method is to push the contact in by hand, then use the tool to finish the insertion. The other method is to position the insertion tip against the contact shoulder, then insert the contact. Use insertion/extraction tool 809-088 to install contacts. Slide the wire into the groove on the blue end of the tool. Slide the tool tip up the contact until it touches the contact shoulder. **USE CARE TO AVOID DAMAGING THE CONNECTOR.**

**7 Contact Extraction.** Use tool 809-088. The white end is used for contact extraction. First, push the wire into the groove of the metal tip. Slide the tip of the tool into the connector. Push the tool into the connector cavity until the tip bottoms in the connector. Avoid wiggling or rocking the tip. This may damage the cavity. A straight push is best. Pinch the wire between your finger and the white plastic grip and slide the tool and contact out of the connector. **Wire insulation diameter greater than 0.045 inches (1.14mm) is too large to work properly with the extraction tool. connector damage is possible.**





RJ45 AND USB 2.0

# Contacts, Tools, and Accessories



Band-Master ATS® 601-100 Commercial and 600-058  
QPL Qualified, Standard Banding Tool

## STANDARD BANDING TOOL



### The 601-100 Band-Master ATS® Standard Tool with Counter for Standard Bands

Weighs 1.2 lbs., and is designed for .240" width clamping bands in a tension range from 100 to 180 lbs. Calibrate at 150 lbs. ± 5 lbs. for most shield terminations. Tool and band should never be lubricated.

### The 600-058 QPL Qualified (M81306/1A) Standard Banding Tool without Counter



Weighs 1.1 and is designed for .240" width clamping bands in a tension range from 100 to 180 lbs. Calibrate at 150 lbs. ± 5 lbs. for most shield terminations. Tool and band should never be lubricated (not shown).

Color-coded tool handle:



= Standard; Black

#### Band-Master ATS® Standard Band Selection

Bands	Length		Part Number		Fits Diameter	
	In.	mm.	Flat	Pre-Coiled	In.	mm.
Short Standard	9.0	228.6	<a href="#">601-005</a>	<a href="#">601-006</a>	1.0	25.4
Medium Standard	14.25	361.95	<a href="#">601-040</a>	<a href="#">601-041</a>	1.8	45.7
Long Standard	18.0	457.2	<a href="#">601-049</a>	<a href="#">601-050</a>	2.5	63.5

#### Cable Pull Strength for BandMaster™ ATS Standard Bands

Name	Material Type	Band Width		Band Thickness		Calibration Setting	Cable Pull Strength
		In	mm	In	mm		
Standard	300 SS	0.240	6.10	.020	.51	150 ±5 lbs	per AS85049/128

#### QPL Qualified Standard Band Selection

Bands	Length		Mil Spec Part Number		Fits Diameter	
	in.	mm.	Flat	Pre-Coiled	in.	mm.
Standard Band	14.25	361.95	<a href="#">M85049/128-3</a>	<a href="#">M85049/128-4</a>	1.8	45.7

#### Cable Pull Strength for Standard QPL Qualified Bands

Name	Material Type	Band Width		Band Thickness		Calibration Setting	Cable Pull Strength
		In	mm	In	mm		
Standard	300 SS	0.240	6.10	.020	.51	150 ±5 lbs	per AS85049/128



RJ45 AND USB 2.0

# Contacts, Tools, and Accessories



Band-Master ATS® 601-101 Commercial and 600-061 QPL Qualified, Micro Banding Tool

## MICRO BANDING TOOL



Color-coded tool handle:



= Micro; Blue

### The 601-101 Band-Master ATS® Micro Tool with Counter for Micro Bands

Weighs 1.3 lbs., and is designed for micro .120" width clamping bands in a tension range from 50 to 85 lbs. Calibrate at 80 lbs ±3 lbs. for most shield terminations. Tool and band should never be lubricated.

### The 600-061 QPL Qualified (M81306/1B) Micro Banding Tool without Counter



Weighs 1.1 and is designed for micro .120" width clamping bands in a tension range from 60 to 85 lbs. Calibrate at 80 lbs ±5 lbs. for most shield terminations. Tool and band should never be lubricated (not shown).

Contacts and Termination Tools

Bands	Band-Master ATS® Micro Band Selection					
	Length		Part Number		Fits Diameter	
	in.	mm.	Flat	Pre-Coiled	in.	mm.
Short Micro	5.0	127.0	<a href="#">601-024</a>	<a href="#">601-025</a>	0.5	12.7
Medium Micro	8.125	206.38	<a href="#">601-060</a>	<a href="#">601-061</a>	.88	22.4
Long Micro	14.25	361.95	<a href="#">601-064</a>	<a href="#">601-065</a>	1.8	45.7

Cable Pull Strength for Band-Master ATS® Micro Bands							
Name	Material Type	Band Width		Band Thickness		Calibration Setting	Cable Pull Strength
		In	mm	In	mm		
Micro	300 SS	0.120	3.05	.015	.38	80 ±5 lbs	per AS85049/128

Bands	QPL Qualified Micro Band Selection					
	Length		Part Number		Fits Diameter	
	in.	mm.	Flat	Pre-Coiled	in.	mm.
Standard Micro	8.125	206.38	<a href="#">M85049/128-7</a>	<a href="#">M85049/128-8</a>	.88	22.4

Cable Pull Strength for Micro QPL Qualified Bands							
Name	Material Type	Band Width		Band Thickness		Calibration Setting	Cable Pull Strength
		In	mm	In	mm		
Micro	300 SS	0.120	3.05	.015	.38	80 ±5 lbs	per AS85049/128





# RJ45 AND USB 2.0 Contacts, Tools, and Accessories

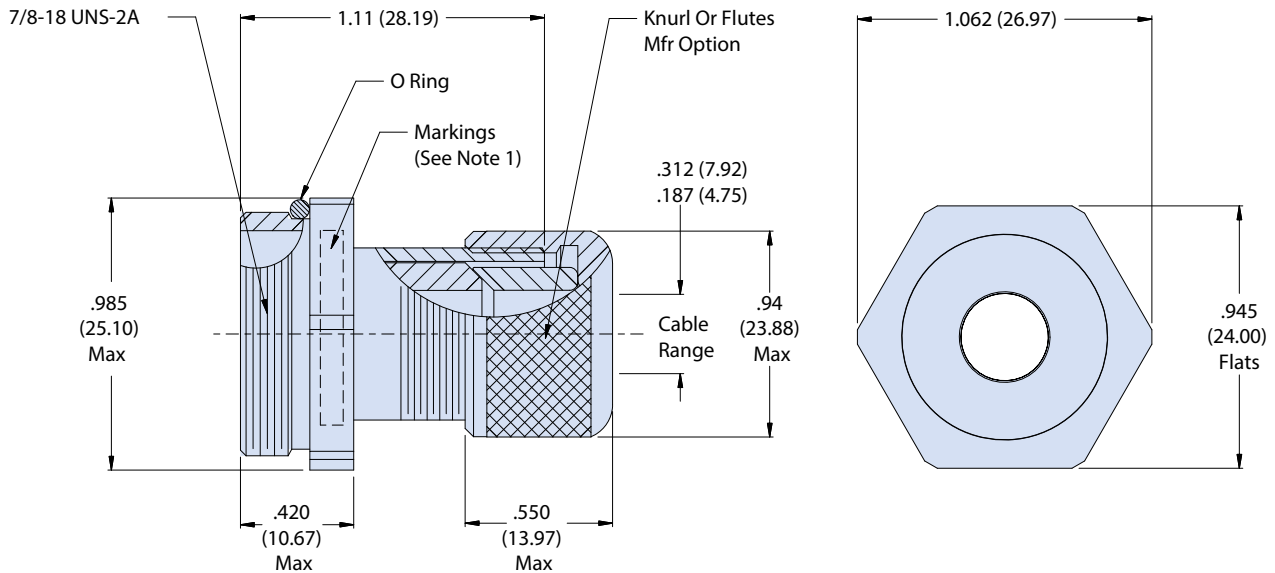


## 637-204 Environmental Backshell with Sealing Gland for 253-100 RJ45 38999 Series III Type Connectors



How To Order		
Sample Part Number	637-204	M
Series	637-204	
Material and Finish	See Material and Finish Table	

MIL-DTL-38999 Type



Materials and Finishes	
NF	Aluminum/Cadmium, olive drab
ME	Aluminum/Electroless nickel
MT	Aluminum/ Nickel PTFE
ZR	Aluminum/ Black zinc-nickel

### NOTES

1. Glenair 600 series backshell assembly tools are recommended for assembly and installation
2. O-ring and grommet: fluorosilicone

M



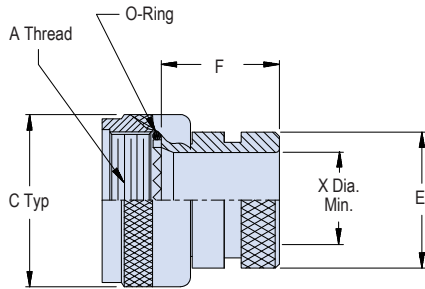
# RJ45 AND USB 2.0 Contacts, Tools, and Accessories



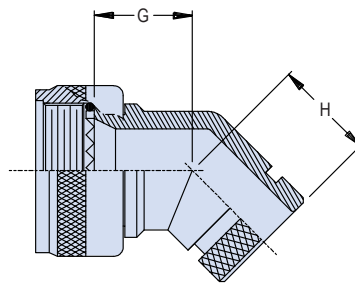
## 310-001 Shrink Boot Adapter with Rotatable Coupling for 38999 Series III Type Connectors



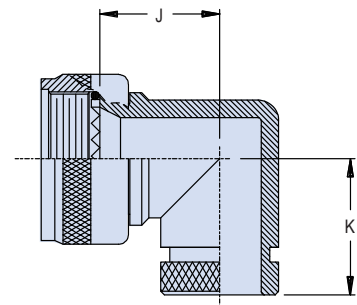
How To Order						
Sample Part Number	310	H	S	001	M	17
Series/Basic Part No.	310 - Shrink Boot Adapter					
Connector Designator	H = 38999					
Angular Function	A = 90° B = 45° S = Straight					
Basic Part No.	001					
Finish	See Material and Finish Table					
Shell Size	15, 17, 19					



**Straight (S)**



**45° (B)**



**90° (A)**

Dimensions									
Shell Size	A Thread	C Typ	E Max	F Max	G Max	H Max	J Max	K Max	X Dia. Min.
15	M22 X 1 -- 6H	1.07 (27.2)	.838 (21.3)	.940 (23.9)	.705 (17.9)	.890 (22.6)	.920 (23.4)	1.110 (28.2)	.565 (14.4)
17	M25 X 1 -- 6H	1.21 (30.7)	.963 (24.5)	.940 (23.9)	.732 (18.6)	.910 (23.1)	.980 (24.9)	1.170 (29.7)	.690 (17.5)
19	M28 X 1 -- 6H	1.36 (34.5)	1.042 (26.5)	.940 (23.9)	.748 (19.0)	.920 (23.4)	1.020 (25.9)	1.190 (30.2)	.769 (19.5)

Materials and Finishes		
NF	Aluminum	Cadmium, olive drab
ME		Electroless nickel
MT		Nickel PTFE
ZR		Black zinc-nickel

Recommended Shrink Boot*		
Shell Size	Shrink Boot with Low Temp Adhesive	Shrink Boot without Low Temp Adhesive
15	770-028S904 Lipless boot	770-028S904U Lipless boot
17	770-028S906	770-028S906U
19	770-028S906	770-028S906U

\* **Shrink Boot MUST be ordered separately.**  
Shrink boot material: compound 2013 low temperature polyolefin.

MIL-DTL-38999 Type

M



RJ45 AND USB 2.0

# Contacts, Tools, and Accessories

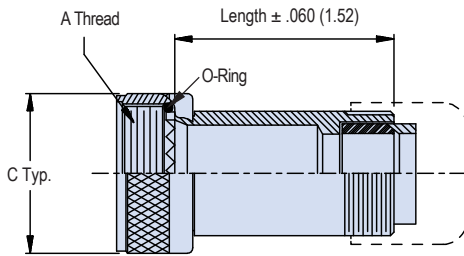


## 370-001 Cable Sealing Backshell with Rotatable Coupling for 38999 Series III Type Connectors

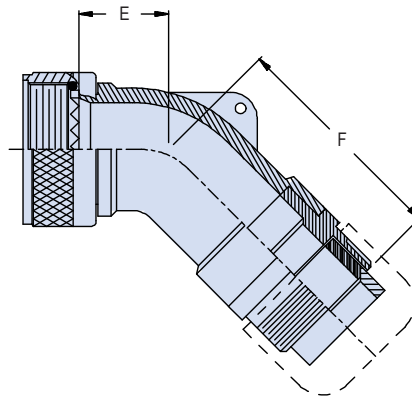
How To Order									
<b>Sample Part Number</b>	<b>370</b>	<b>H</b>	<b>S</b>	<b>001</b>	<b>M</b>	<b>17</b>	<b>03</b>	<b>D</b>	<b>1.5</b>
<b>Series/Basic Part No.</b>	370 - low Profile								
<b>Connector Designator</b>	H = 38999								
<b>Angular Function</b>	A = 90° B = 45° S = Straight								
<b>Basic Part No.</b>	001								
<b>Finish</b>	See Material and Finish Table								
<b>Shell Size</b>	15, 17, 19								
<b>Dash No.</b>	See Dash Number Table								
<b>Strain Relief Style</b>	D = Nut								
<b>Length</b>	1/2 inch increments (e.g. 6 = 3 inches); Straight only Minimum Order Length 1.5 Inch (See Note 1)								

MIL-DTL-38999 Type

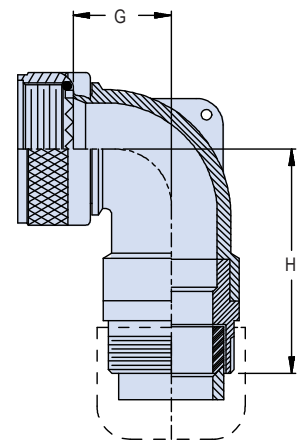
**Straight (S)**



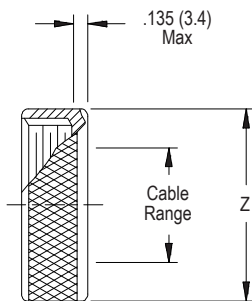
**45° (B)**



**90° (A)**



### STRAIN RELIEF STYLE D



Dimensions						
Shell Size	A Thread	C Typ.	E Max	F Max	G Max	H Max
15	M22 X 1 -- 6H	1.07 (27.2)	.645 (16.4)	2.359 (59.9)	.700 (17.8)	2.369 (60.2)
17	M25 X 1 -- 6H	1.21 (30.7)	.738 (18.7)	2.469 (62.7)	.885 (22.5)	2.459 (62.5)
19	M28 X 1 -- 6H	1.36 (34.5)	.926 (23.5)	2.659 (67.5)	.975 (24.8)	2.629 (66.8)

Materials and Finishes <sup>1</sup>	
NF	Aluminum/Cadmium, olive drab
ME	Aluminum/Electroless nickel
MT	Aluminum/ Nickel PTFE
ZR	Aluminum/ Black zinc-nickel

Dash Number			
Dash No.	Z Max	Cable Range	
		Min	Max
03	.630 (16.0)	.156 (4.0)	.250 (6.4)
04	.755 (19.2)	.188 (4.8)	.312 (7.9)
06	.942 (23.9)	.281 (7.1)	.438 (11.1)

M



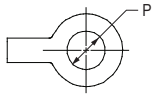
# RJ45 AND USB 2.0 Contacts, Tools, and Accessories



## 660-024 and -023 Protective Covers, Attached to Panel for 38999 Type Receptacle Connectors

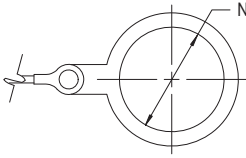
How To Order							
<b>Sample Part Number</b>	<b>660</b>	<b>-024</b>	<b>M</b>	<b>17</b>	<b>H</b>	<b>5</b>	<b>-01</b>
<b>Series</b>	660 = Series 66						
<b>Cover Type</b>	-024 = metal receptacle cover -023 = metal plug cover						
<b>Material and Finish</b>	See Material and Finish Table						
<b>Shell Size</b>	15, 17, 19						
<b>Lanyard Type</b>	D, S, F, G, H, K, R, T, U (See Lanyard Type Table)						
<b>Lanyard Length</b>	Length in inches						
<b>Ring Style Dash No.</b>	(See Table I and II) omit for "SK" slip knot attachment						

Table I: Dash No. for Small Ring			
Dash No.	P	Dash No.	P
01	.140 (3.6)	06	.125 (3.2)
02	.182 (4.6)	07	.218 (5.5)
03	.191 (4.9)	09	.156 (4.0)
04	.197 (5.0)	00	no eyelet
05	.167 (4.2)	WS	with strap



**For attachment to panel**

Table II: Dash No. for Solid Ring		
Dash No.	Shell Size	N
19	15	1.141 (29.0)
21	17	1.266 (32.2)
23	19	1.391 (35.3)

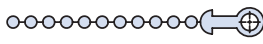
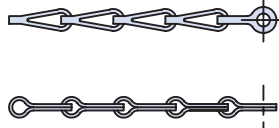
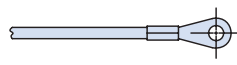


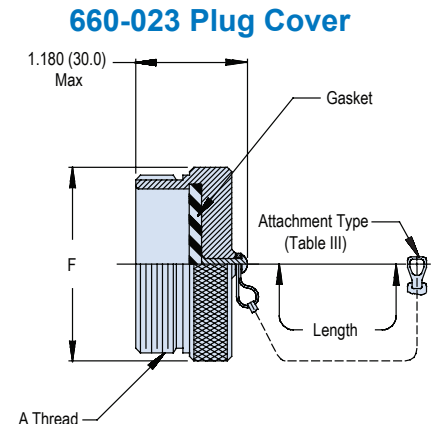
**SOLID RING (with tab)**

For attachment behind jam nut

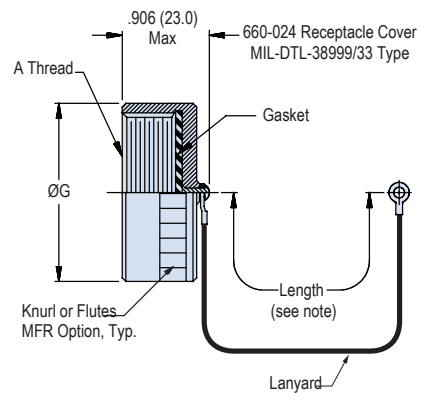
Dimensions			
Shell Size	A Thread	F	ØG Max
15	0.1P-0.3L-TS		
15	1.0000	1.300 (33.0)	1.260 (32.0)
17	1.1875	1.457 (37.0)	1.457 (37.0)
19	1.2500	1.575 (40.0)	1.535 (39.0)

Lanyard Type	
Sym	Attachment
D	Bead chain, cres, passivated, with terminal
E	Link chain, cres, passivated, with clevis terminal
F	Wire rope, nylon jacket w/terminal
G	Nylon rope
H	Wire rope, fluoropolymer jacket with terminal
K	Nylon rope (olive drab color)
N	Attachment omitted
R	Wire rope, pvc jacket w/terminal
T	Wire rope, no jacket, w/terminal
S	#8 Sash chain, cres, passivate
U	Wire rope, polyurethane jacket with terminal
SK	Nylon rope (black) with slip knot

Lanyard Types		
		
Bead Chain (Type D)	Sash Chain (Type S)	Rope (Types F, G, H, K, R, T, U)



### 660-024 Receptacle Cover



#### NOTES

- Length tolerance for Sash Chain (S) is ± 1 link, for all other attachments ± .25.
- For plug covers contact factory
- Material and Finish
  - Gasket: Silicone
  - Hardware, Rivet: Stainless Steel/ Passivate

Materials and Finishes <sup>1</sup>	
NF	Aluminum/Cadmium, olive drab
ME	Aluminum/Electroless nickel
MT	Aluminum/ Nickel PTFE
ZR	Aluminum/ Black zinc-nickel
ZI	Stainless Steel/ Passivate

MIL-DTL-38999 Type

M



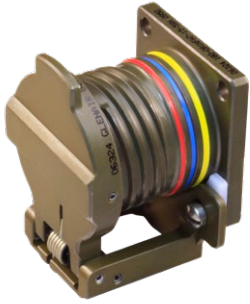
RJ45 AND USB 2.0

# Contacts, Tools, and Accessories



## 667-407 ProSeal™ Spring-Loaded Environmental Cover for 38999 Sr. III Type Wall Mount or Jam Nut Connectors

MIL-DTL-38999 Type

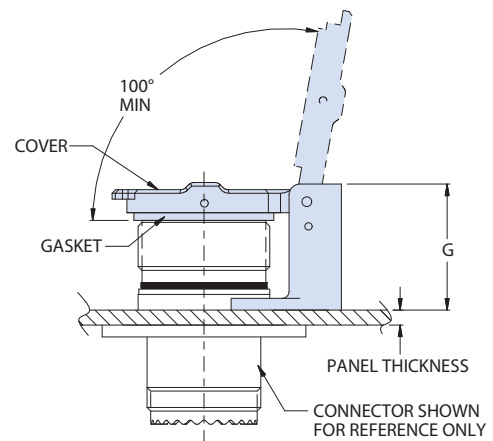
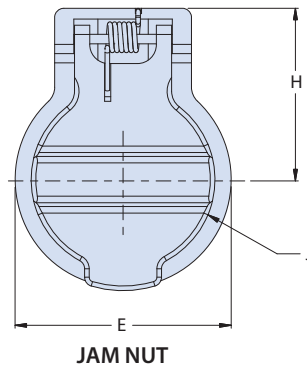
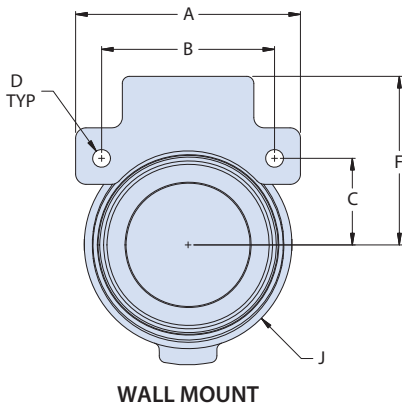


How To Order						
Sample Part Number	667-407	NF	17	T1	J	-59
Product Series-Basic No.	667-407 = Flop Cover					
Material and Finish	See Material and Finish Table					
Connector Shell Size	See Dimensions Table					
Panel Thickness	See Panel Thickness Table					
Mounting Type	J = Jam Nut Mount Receptacle W = Wall Mount Receptacle					
Conductive Silicone	59					

Shell Size	Dimensions															
	A Dim ±.031 (.78)		B Dim		C Dim		D Dim ±.008 (.20)		E Dia ±.031 (.78)		F Dim Max		H Dim Max		J Dia Max	
	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm
15	1.220	30.98	.969	24.61	.485	12.31	.129	3.28	1.560	39.62	1.029	26.14	1.179	29.95	1.255	31.88
17	1.311	33.30	1.062	26.97	.531	13.49	.129	3.28	1.625	41.28	1.114	28.30	1.212	30.78	1.425	36.20
19	1.437	36.50	1.156	29.36	.578	14.68	.129	3.28	1.750	44.45	1.146	29.11	1.365	34.67	1.488	37.80

Material and Finish		
Symbol	Material	Finish Description
MT	Aluminum	Nickel-PTFE
ZR		Zinc ni, black (tri-valet cr)
M		electroless nickel
NF		cadmium plate/olive drab over electroless nickel
Z1	SST	passivate
XB	Composite	color black

Panel Thickness Table							
Dash No.	Panel Thickness ±.030		Shell Size	G ±.06 (1.52)			
	In	mm		Jam Nut Style		Wall Style	
				In	mm	In	mm
T1	.062	1.57	09-19	1.041	26.44	0.977	24.82
			21-25	1.126	28.60	1.032	26.21
T2	.125	3.18	09-19	0.979	24.87	0.915	23.24
			21-25	1.064	27.03	0.970	24.64



### NOTES

- Cover will stay open at 100° from receptacle face

M



# RJ45 AND USB 2.0 Contacts, Tools, and Accessories

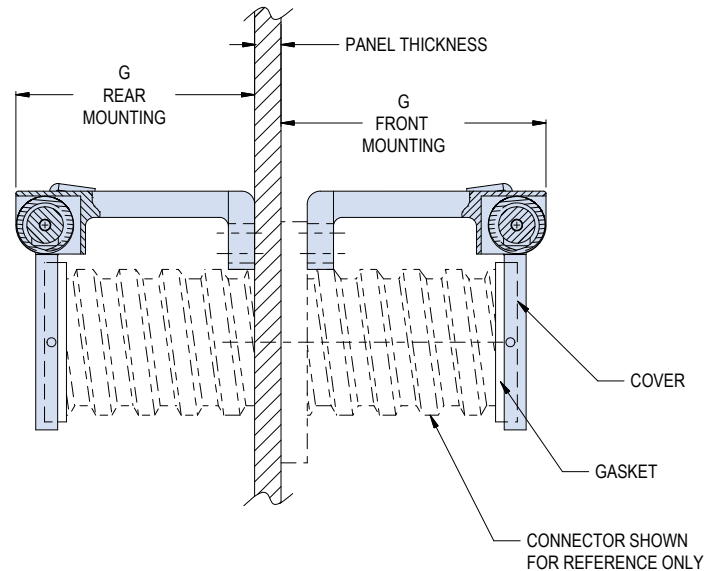
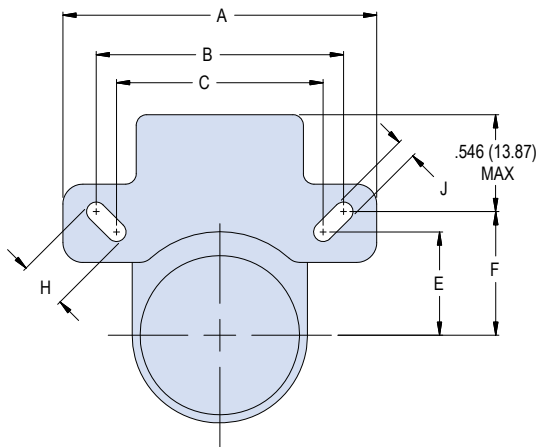


## 667-398 Spring Loaded Flop-Lid Cover for 38999 Series III Type Feed Thru Connector

How To Order				
<b>Sample Part Number</b>	<b>667-398</b>	<b>NF</b>	<b>17</b>	<b>FO</b>
<b>Product Series-Basic No.</b>	667-398 = Flop Cover			
<b>Material and Finish</b>	See Material and Finish Table			
<b>Connector Shell Size</b>	See Dimensions Table			
<b>Cover Mounting</b>	FO = Front Mounting		R1, R2, R3, R4 = Rear Mounting	
	See Table I for Panel Thickness Guidelines			

Shell Size	Dimensions													
	A Dim ±.012 (.31)		B Dim		C Dim		E Dim		F Dim		H Dim ±.008 (.20)		J Dim ±.008 (.20)	
	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm
17	1.542	39.17	1.062	26.97	.969	24.61	.485	12.32	.531	13.49	.194	4.93	.128	3.25
19	1.636	41.55	1.156	29.36	1.062	26.97	.531	13.49	.578	14.68	.194	4.93	.128	3.25

contact factory for other shell sizes



Material and Finish		
Symbol	Material	Finish Description
MT	Aluminum	Nickel-PTFE
ZR		Zinc ni, black (tri-valet cr)
M		electroless nickel
NF		cadmium plate/olive drab over electroless nickel
Z1	SST	passivate
XB	Composite	color black

Cover Mounting Dash Number		
Dash No.	Panel Thickness ±.030	G Max
FO	N/A	.845 (21.46)
R1	.062 (1.57)	.981 (24.91)
R2	.125 (3.18)	.918 (23.32)
R3	.188 (4.78)	.855 (21.72)
R4	.250 (6.35)	.793 (20.14)

MIL-DTL-38999 Type

M



# RJ45 AND USB 2.0 Contacts, Tools, and Accessories

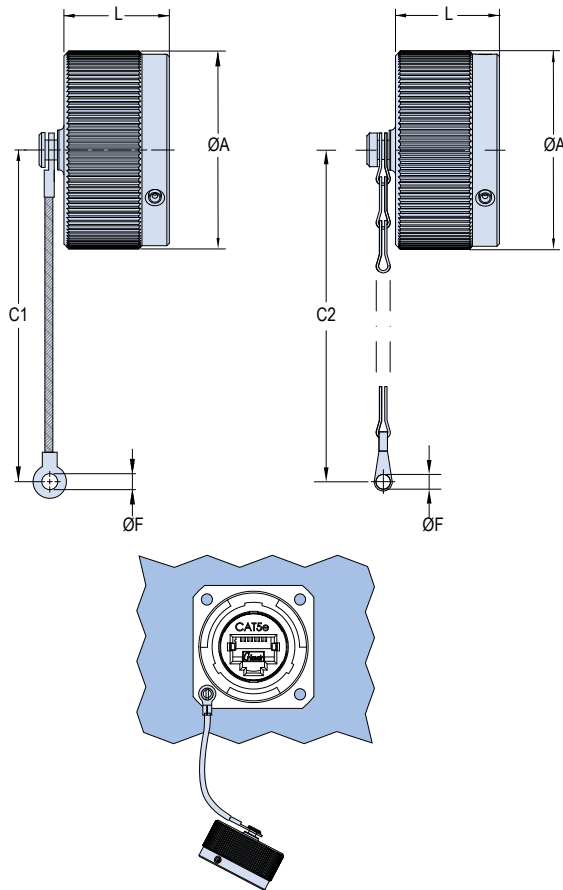


## Series ITS Protective Covers for Wall Mount and Jam Nut Receptacle Connectors

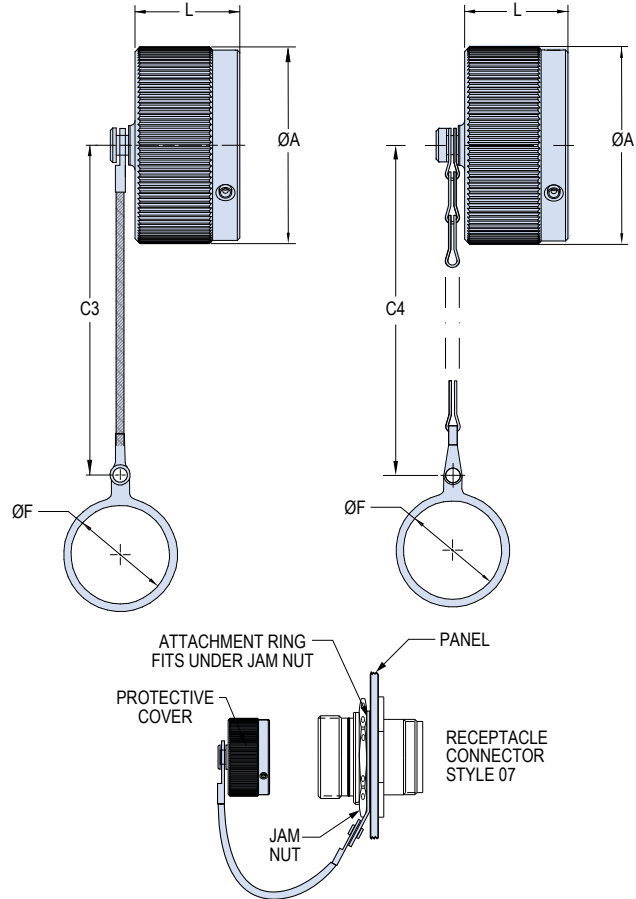
Series ITS (5015 Intermountable)

How To Order				
<b>Sample Part Number</b>	<b>ITB02</b>	<b>TF</b>	<b>-17</b>	<b>F6</b>
<b>Series/Basic Part No.</b>	<b>ITB02</b> = Wall Mount Attachment Style		<b>ITB07</b> = Jam Nut Attachment Style (See Note 1)	
<b>Attachment Type</b>	<b>TF</b> = Stainless Steel Wire Rope		<b>T</b> = Sash Chain	
<b>Connector Size</b>	<b>17</b> = Shell Size 16	<b>18</b> = Shell Size 18		
<b>Material/Finish Options</b>	<b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F11</b> = Aluminum/Electroless Nickel		<b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>Omit</b> for Aluminum/Cadmium, Olive Drab	

### ITS (ITB02) WALL MOUNT RECEPTACLE COVER



### ITS (ITB07) JAM NUT MOUNT RECEPTACLE COVER



Dimensions								
Shell Size Code	Connector Size	ØA ±.020 (±0.5)	Wall Mount		Jam Nut		ØF +.007 (+0.2) -.003 (-0.1)	L Max.
			Wire Rope C1 Min.	Sash Chain C2 Min.	Wire Rope C3 Min.	Sash Chain C4 Min.		
-17	16	1.26 (32.0)	7.60 (193)	4.84 (123)	8.19 (208)	5.39 (137)	.170 (4.3)	.83 (21.0)
-18	18	1.44 (36.5)	7.60 (193)	4.84 (123)	8.19 (208)	5.43 (138)	.17 (4.3)	.85 (21.7)

### NOTES

1. For plug covers contact factory



# RJ45 AND USB 2.0 Contacts, Tools, and Accessories

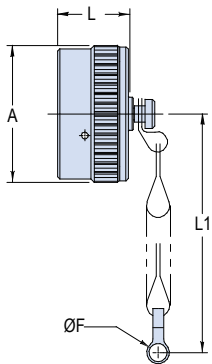


## Series IPT Protective Covers for Wall Mount and Jam Nut Receptacle Connectors

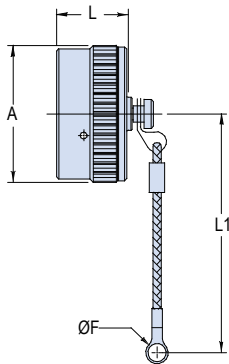
Series IPT (26482 Type)

How To Order				
<b>Sample Part Number</b>	<b>IPT3181</b>	<b>-18</b>	<b>CF</b>	<b>F6</b>
<b>Series/Basic Part No.</b>	<b>IPT3181</b> = Receptacle Cover (See Note 1)			
<b>Connector Size</b>	<b>16</b> = Shell Size 16	<b>18</b> = Shell Size 18		
<b>Lanyard Style</b>	<b>Wall Mount</b> <b>C</b> = Sash Chain <b>CF</b> = Nylon Cord <b>Z1C</b> = Nylon Cord with Loose Terminal and Sleeve		<b>Jam Nut Mount</b> <b>N</b> = Sash Chain <b>NF</b> = Nylon Cord	
<b>Finish Options</b>	<b>F6</b> = Aluminum/Black Polymer Electrocoat <b>F11</b> = Aluminum/Electroless Nickel		<b>F7</b> = Aluminum/Conductive Black Zinc Nickel <b>Omit</b> for Aluminum/Cadmium, Olive Drab	

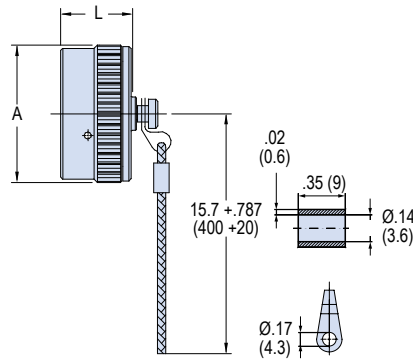
### IPT WALL MOUNT RECEPTACLE COVER



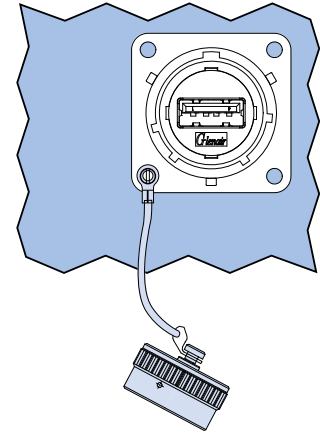
**Example: IPT3181-18C**  
(Stainless Steel Sash Chain)



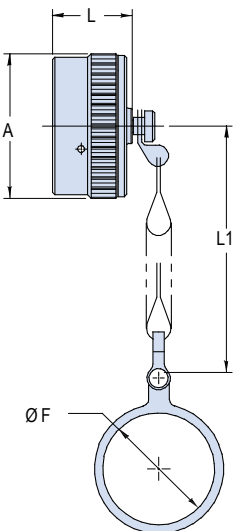
**Example: IPT3181-18CF**  
(Nylon Cord)



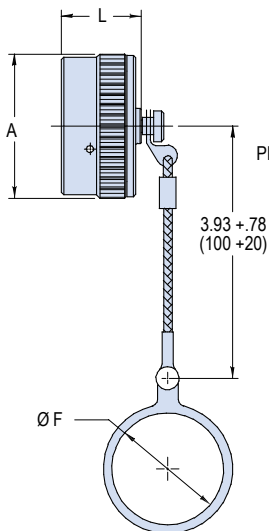
**Example: IPT3181-18Z1C**  
(Nylon Cord with loose terminal and sleeve)



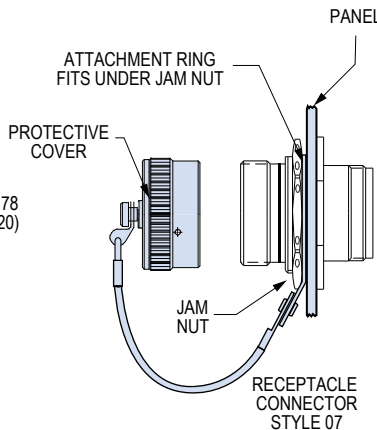
### IPT JAM NUT MOUNT RECEPTACLE COVER



**Example: IPT3181-18N**  
(Stainless Steel Sash Chain)



**Example: IPT3181-18NF**  
(Nylon Cord)



Dimensions for Wall Mount and Jam Nut Covers				
Shell Size	A Max.	ØF +.874 (+0.2) -.004 (-0.1)	L +.197 (+0.5) -0 (-0)	L1 Min.
16	1.256 (31.90)	.169 (4.3)	.563 (14.30)	3.5 (88.9)
18	1.378 (35.00)	.169 (4.3)	.563 (14.30)	3.5 (88.9)

#### NOTES

1. For plug covers contact factory





# RJ45 AND USB 2.0 Contacts, Tools, and Accessories

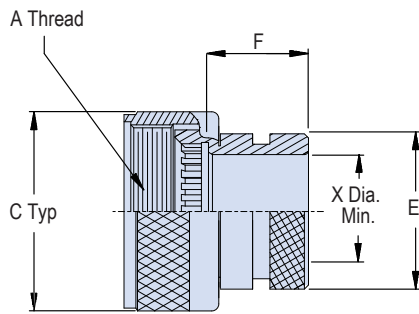


## 310-001 Shrink Boot Adapter with Rotatable Coupling for 28840 Type Connectors

MIL-DTL-28840 Type



How To Order						
<b>Sample Part Number</b>	<b>310</b>	<b>G</b>	<b>S</b>	<b>001</b>	<b>M</b>	<b>17</b>
<b>Series/Basic Part No.</b>	310 - Shrink Boot Adapter					
<b>Connector Designator</b>	G = 28840					
<b>Angular Function</b>	S = Straight For 45° and 90° versions contact factory					
<b>Basic Part No.</b>	001					
<b>Finish</b>	See Material and Finish Table					
<b>Shell Size</b>	15, 17, 19					



Materials and Finishes	
<b>NF</b>	Aluminum/ Cadmium olive drab
<b>M</b>	Aluminum/ Electroless nickel
<b>MT</b>	Aluminum/ Nickel PTFE
<b>ZR</b>	Aluminum/ Zinc-nickel black
<b>Z1</b>	Stainless Steel/ Passivate

Dimensions					
Shell Size	A Thread	C Typ	E Max	F Max	X Dia. Min.
<b>15</b>	M22 X 1 -- 6H	1.07 (27.2)	.838 (21.3)	.940 (23.9)	.565 (14.4)
<b>17</b>	M25 X 1 -- 6H	1.21 (30.7)	.963 (24.5)	.940 (23.9)	.690 (17.5)
<b>19</b>	M28 X 1 -- 6H	1.36 (34.5)	1.042 (26.5)	.940 (23.9)	.769 (19.5)

Recommended Shrink Boot*		
Shell Size	Shrink Boot with Low Temp Adhesive	Shrink Boot without Low Temp Adhesive
<b>15</b>	<b>770-028S904</b> Lipless boot	<b>770-028S904U</b> Lipless boot
<b>17</b>	<b>770-028S906</b>	<b>770-028S906U</b>
<b>19</b>	<b>770-028S906</b>	<b>770-028S906U</b>

\* **Shrink Boot MUST be ordered seperately.**  
Shrink boot material: compound 2013 low temperature polyolefin.



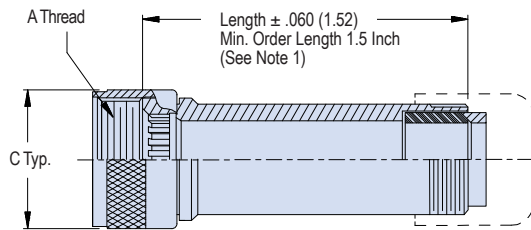
# RJ45 AND USB 2.0 Contacts, Tools, and Accessories



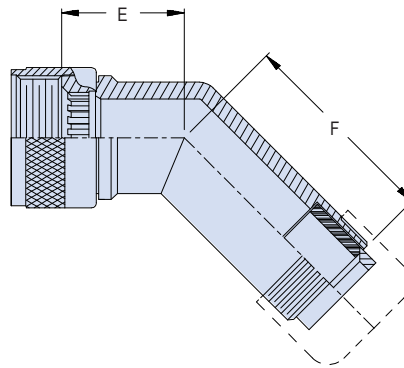
## 370-007 Cable Sealing Backshell with Rotatable Coupling for 28840 Type Connectors

How To Order									
<b>Sample Part Number</b>	<b>370</b>	<b>G</b>	<b>S</b>	<b>007</b>	<b>M</b>	<b>17</b>	<b>03</b>	<b>D</b>	<b>1.5</b>
<b>Series/Basic Part No.</b>	370 - low Profile								
<b>Connector Designator</b>	G = 28840								
<b>Angular Function</b>	J = 90° H = 45° S = Straight								
<b>Basic Part No.</b>	007								
<b>Finish</b>	See Material and Finish Table								
<b>Shell Size</b>	15, 17, 19								
<b>Dash No.</b>	See Dash Number Table								
<b>Strain Relief Style</b>	D = Nut								
<b>Length</b>	1/2 inch increments (e.g. 6 = 3 inches); Straight only								

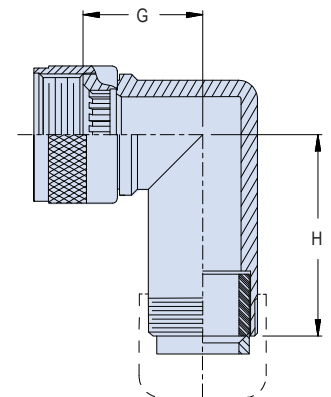
**Straight (S)**



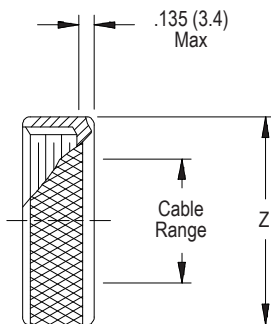
**45° (H)**



**90° (J)**



### STRAIN RELIEF STYLE D



Dimensions						
Shell Size	A Thread	C Typ.	E Max	F Max	G Max	H Max
15	M22 X 1 -- 6H	1.07 (27.2)	.645 (16.4)	2.359 (59.9)	.700 (17.8)	2.369 (60.2)
17	M25 X 1 -- 6H	1.21 (30.7)	.738 (18.7)	2.469 (62.7)	.885 (22.5)	2.459 (62.5)
19	M28 X 1 -- 6H	1.36 (34.5)	.926 (23.5)	2.659 (67.5)	.975 (24.8)	2.629 (66.8)

Materials and Finishes	
NF	Aluminum/ Cadmium, olive drab
M	Aluminum/ Electroless nickel
MT	Aluminum/ Nickel PTFE
ZR	Aluminum/ Zinc-nickel black
ZI	Stainless Steel/ Passivate

Dash Number			
Dash No.	Z Max	Cable Range	
		Min.	Max.
03	.630 (16.0)	.250 (6.4)	.250 (6.4)
04	.755 (19.2)	.312 (7.9)	.312 (7.9)
06	.942 (23.9)	.438 (11.1)	.438 (11.1)

MIL-DTL-28840 Type

M



# RJ45 AND USB 2.0 Contacts, Tools, and Accessories

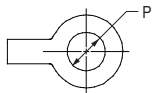


## 660-011 Series 66 Protective Covers for 28840 Type Receptacle Connectors

MIL-DTL-28840 Type

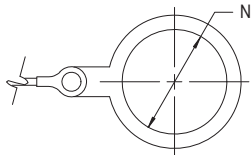
How To Order	
<b>Sample Part Number</b>	<b>660 -011 M D H 5 -01</b>
<b>Series</b>	<b>660</b> = Series 66
<b>Cover Type</b>	<b>-011</b> = Metal Receptacle Cover (See Note 2)
<b>Material and Finish</b>	See Material and Finish Table
<b>Shell Size Designator</b>	<b>C, D, E</b>
<b>Lanyard Type</b>	<b>D, S, F, G, H, R, T, U</b> (See Lanyard Type Table)
<b>Lanyard Length</b>	Length in inches; i.e. 3 = 3 inches
<b>Ring Style Dash No.</b>	See Tables I, II or III for Ring Selection and Dash Number. Omit for "SK" slip knot attachment

Dash No.	P Dia ± .010 (0.3)	Dash No.	P Dia ± .010 (0.3)
01	.140 (3.6)	06	.125 (3.2)
02	.182 (4.6)	07	.218 (5.5)
03	.191 (4.9)	09	.156 (4.0)
04	.197 (5.0)	00	no eyelet
05	.167 (4.2)		



For attachment to panel

Dash No.	Shell Size	N
208	15 (C)	1.203 (30.6)
109	17 (D)	1.266 (32.2)
111	19 (E)	1.521 (38.6)



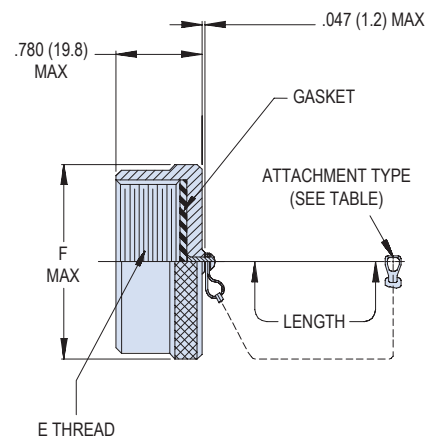
SOLID RING (with tab)

For attachment behind jam nut

Shell Size Designator	Shell Size (Ref.)	F Thread	F Max
C	15	1.062 - 0.1P-0.2L-DS	1.260 (32.0)
D	17	1.125 - 0.1P-0.2L-DS	1.457 (37.0)
E	19	1.312 - 0.1P-0.2L-DS	1.535 (39.0)

Sym	Attachment
D	Bead chain, cres passivated, w/ terminal
F	Wire rope, nylon jacket w/ terminal
G	Nylon rope
H	Wire rope, fluoropolymer jacket w/ terminal
N	Attachment omitted
R	Wire rope, PVC jacket w/terminal
T	Wire rope, no jacket, w/terminal
S	#8 Sash chain, cres, passivate
U	Wire rope, polyurethane jacket with terminal

NF	Aluminum/Cadmium, Olive Drab
M	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Zinc-Nickel Black
Z1	Stainless Steel/Passivate



### NOTES

- Length tolerance for Sash Chain (S) is ± 1 link, for all other attachments ± .25.
- For plug covers contact factory
- Material and Finish
  - Gasket: Silicone
  - Components, rivet: Stainless Steel/Passivate

Lanyard Types		
Bead Chain (Type D)	Sash Chain (Type S)	Rope (Types F, G, H, R, T, U)



# RJ45 AND USB 2.0 Contacts, Tools, and Accessories



## 440MS134 straight environmental, direct coupling adapter for Series 801, 804 and 805 Mighty Mouse

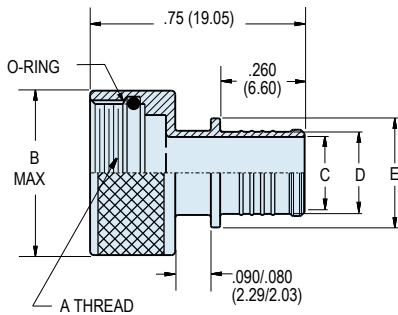


**Band-Master ATS® Band  
Microband 601-061  
See Page M-7**



**Add a boot or overmold  
for environmental protection  
(Shown without boot)**

These adapters are used with Band-Master ATS® micro band shield termination straps. Choose the smallest cable entry for your wire bundle.



STRAIGHT ENTRY  
DIRECT COUPLING  
440MS134

### NOTES

- For use with Micro USB Mighty Mouse Series 801 and 805
- Material and Finish
  - Band: 300 Series SST
  - O-Ring: Silicone Elastomer

How To Order					
<b>Sample Part Number</b>	<b>440MS134</b>	<b>NF</b>	<b>08</b>	<b>04</b>	<b>B</b>
<b>Series (See Table I)</b>	<b>440MS134</b> = Straight Entry				
<b>Shell Material and Finish</b>	<b>M</b> = Aluminum/Electroless Nickel <b>NF</b> = Aluminum/Cadmium with Olive Drab <b>ZN</b> = Aluminum/Zinc-Nickel with Olive Drab Chromate <b>ZNU</b> = Aluminum/Zinc-Nickel with Black Chromate <b>MT</b> = Aluminum/Nickel-PTFE <b>Z1</b> = Stainless Steel/Passivated				
<b>Adapter Size Code</b>	<b>08, 10, 14, 16</b> See Adapter Size Code and Dimensions Table				
<b>Cable Entry Size (See Table i)</b>	<b>04, 05, 06, 07, 08</b> See Table 1 for Dimensions				
<b>Band Option</b>	<b>B</b> = 601-060 flat band supplied <b>K</b> = 601-061 pre-coiled band supplied <b>Omit</b> = no band supplied				

Adapter Size Code and Dimensions						
Adapter Size Code	Shell Size Reference		A Thread Class -2B	B Max.		Dash No.
	801/804	805		In.	mm.	
<b>08</b> <sup>1</sup>	8	10	1/2-28 UNEF	.595	15.11	<b>04 thru 08</b> See Table 1 for Dimensions
<b>10</b>	10	n/a	5/8-24 UNEF	.715	18.16	
<b>14</b>	14/15/16/17	18	15/16-20 UNEF	1.020	25.91	
<b>16</b>	19	21	1 1/16-18 UNEF	1.155	29.34	

Table I: Cable Entry, Band Platform Dimensions and Recommended Shrink Boot							
Dash No.	Ø C		Ø D		Ø E		Straight Shrink Boot*
	In.	mm.	In.	mm.	In.	mm.	
	± .015	± 0.38	± .015	± 0.38	± .015	± 0.38	
<b>04</b>	.234	5.94	.273	6.93	.375	9.53	<b>770-003S901W2</b>
<b>05</b>	.272	6.91	.311	7.90	.413	10.49	<b>770-003S902W2</b>
<b>06</b>	.312	7.92	.351	8.92	.453	11.51	<b>770-003S902W2</b>
<b>07</b>	.375	9.53	.414	10.52	.516	13.11	<b>770-003S903W2</b>
<b>08</b>	.438	11.13	.477	12.12	.579	14.17	<b>770-003S903W2</b>

\* **Shrink Boot MUST be ordered separately.**

Shrink boot material: compound 2013 low temperature polyolefin with W2 hot melt adhesive.

Series 80 Mighty Mouse

M



# RJ45 AND USB 2.0 Contacts, Tools, and Accessories



## 440-135 EMI/RFI, Rotatable Coupling, Shrink Boot Band Adapter for Series 801, 804 and 805 Mighty Mouse



**Band-Master ATS® Band  
Microband 601-061**  
See Page M-7



**Add a boot or overmold  
for environmental protection**  
(Shown without boot)

These thread-on adapters are used with **Band-Master ATS® Micro Band** shield termination straps. Choose the smallest cable entry for your wire bundle. **Straight Entry** adapters are available in various lengths. **Straight, 45°** and **90°** adapters feature rotatable coupling nuts.



**Band-Master ATS®  
Micro Band Tool  
601-101**  
See Page M-7

Series 80 Mighty Mouse

### How To Order

<b>Sample Part Number</b>	<b>440MS135</b>	<b>M</b>	<b>08</b>	<b>07</b>	<b>-7</b>	<b>K</b>
<b>Series (See Table I)</b>	<b>440MS135</b> = Straight Entry <b>440MK135</b> = 45° Entry <b>440ML135</b> = 90° Entry					
<b>Shell Material and Finish</b>	<b>UCR</b> = Aluminum/Zinc Cobalt Black <b>M</b> = Aluminum/Electroless Nickel <b>NF</b> = Aluminum/Cadmium with Olive Drab <b>ZNU</b> = Aluminum/Zinc-Nickel with Black Chromate <b>MT</b> = Aluminum/Nickel-PTFE <b>Z1</b> = Stainless Steel/Passivated					
<b>Shell Size Code</b>	<b>08, 14, 16</b> (See Dimensions Table)					
<b>Dash No.</b>	<b>04, 05, 06, 07</b> (See Dash No. Table)					
<b>Length</b>	Applies to symbol "S", straight only Length in .125 (3.18mm) inch increments (i.e. 7 = .875 inches)					
<b>Band Option</b>	<b>K</b> = Pre-coiled Band Supplied (601-061) <b>B</b> = Band Supplied (601-060) <b>Omit</b> for no band supplied					

**Table I: Cover Style**

<b>440MS135</b> Straight Entry	<b>440MK135</b> 45° Entry	<b>440ML135</b> 90° Entry

### NOTES

- Standard Minimum Length is .75. applies to symbol "S" straight only.
- Material and Finish
  - Band: 300 series SST
  - O-ring: silicone elastomer

M



RJ45 AND USB 2.0

# Contacts, Tools, and Accessories



## 440-135 EMI/RFI, Rotatable Coupling, Shrink Boot Band Adapter for Series 801, 804 and 805 Mighty Mouse

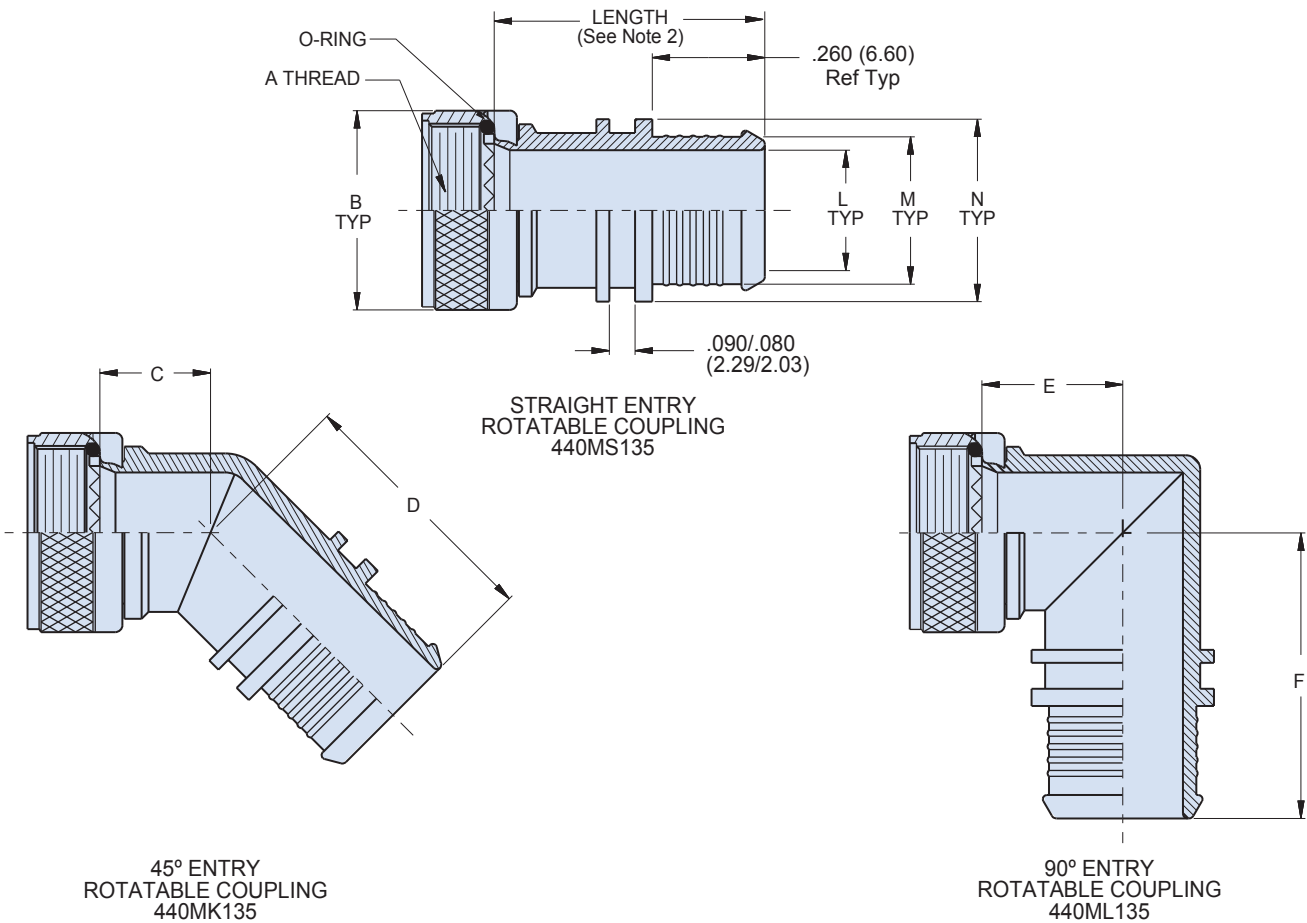
Shell Size Code	Shell Size Reference		A Thread Class -2B	Dimensions												Max Dash No. See Table I
	801 & 804	805		B Max		C Max.		D Max.		E Max.		F Max.				
	In	mm		In	mm	In	mm	In	mm	In	mm	In	mm			
08	8	10	1/2-28 UNEF	.70	17.78	.58	14.73	.70	17.78	.74	18.80	.86	21.84	07		
14	14,15,16,17	18,19	15/16-20 UNEF	1.137	28.88	.69	17.53	.80	20.32	.95	24.13	1.09	27.69			
16	19	21	11/16-18 UNEF	1.230	31.24	.71	18.03	.82	20.83	.98	24.89	1.13	28.70			

Dash No.	L Dia		M Dia		N Dia		Straight Shrink Boot*
	in	mm	in	mm	in	mm	
04	.250	6.35	.289	7.34	.391	9.93	809S060-1L
05	.312	7.92	.351	8.92	.453	11.51	809S060-2L
06	.375	9.53	.414	10.52	.516	13.11	809S060-3L
07	.438	11.13	.477	12.12	.579	14.71	809S060-3L

\* Shrink Boot **MUST** be ordered separately.

Shrink boot material:

compound 2013 low temperature polyolefin with W2 hot melt adhesive.



Series 80 Mighty Mouse

M



RJ45 AND USB 2.0

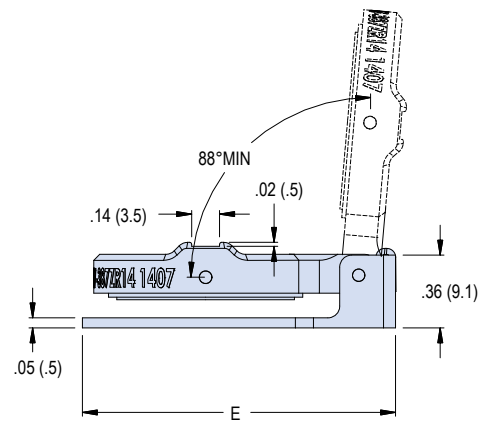
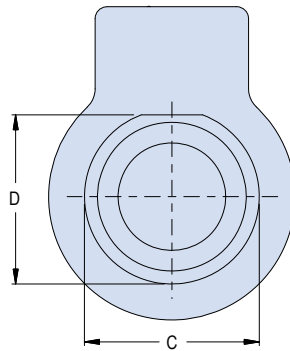
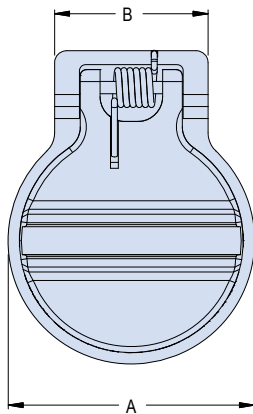
# Contacts, Tools, and Accessories



## 667-387 Spring Loaded Flop-Lid Cover for Series 804 Rear Panel Mount Jam Nut Connector

How To Order				
Sample Part Number	667-387	NF	15	F0
Product Series-Basic No.	667-387 = Mighty Mouse Series 804 Flop-Lid Cover			
Material and Finish	See Material and Finish Table			
Connector Shell Size	See Dimensions Table			
Panel Thickness	1 = .063 ±.03 (1.60 ±.8)	2 = .125 ±.03 (3.18 ±.8)		

Shell Size	Dimensions									
	A Dim)		B Dim		C Dia		D Flat		E Dim	
	In	mm	In	mm	In	mm	In	mm	In	mm
15	1.42	36.1	.89	22.6	1.070	27.18	1.041/1.037	26.44/26.34	1.74	44.20



Material and Finish		
Sym	Material	Finish Description
M	Aluminum	electroless nickel
NF		Cadmium with Olive Drab
ZN		Zinc-Nickel with Olive Drab Chromate
ZNU		Zinc-Nickel with Black Chromate
MT		Aluminum / Nickel-PTFE
Z1	SST	passivated

### NOTES

- Mates to Glenair 804 series rear mousing jam nut connectors
- Hardware Material and finish
  - Housing, cover: see Material and Finish Table
  - Shaft, spring: cress/passivate
  - Sleeve: delrin
  - Gasket: silicone/NA

Series 80 Mighty Mouse

M



RJ45 AND USB 2.0

# Contacts, Tools, and Accessories

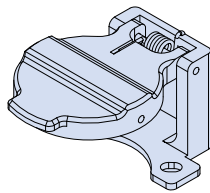


## 667-424 Spring Loaded Flop-Lid Cover for Series 805 Wall Mount and Jam Nut Connectors

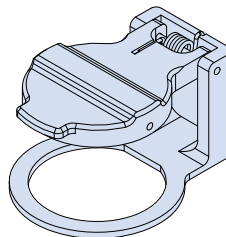
How To Order	
Sample Part Number	667-424 NF 18 T0 J 59
Product Series-Basic No.	667-424 = Mighty Mouse Series 805 Flop-Lid Cover
Material and Finish	See Material and Finish Table
Connector Shell Size	See Dimensions Table
Panel Thickness	See Panel Thickness Table for Dash No.
Type of Mounting	J = Jam Nut W = Wall Mount
Conductive Silicone	Omit for Non-conductive 59 = Conductive Silicone

Panel Thickness				
Dash No	Panel Thickness	Shell Size	H Max	
			Jam Nut Mount	Wall Mount
T0	.000	8-18	N/A	.914
		19-23	N/A	.952
T1	.062 (See Note 1)	8-18	.993	.852
		19-23	1.031	.890

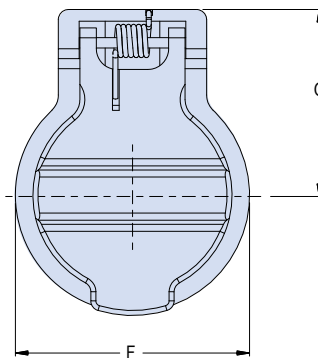
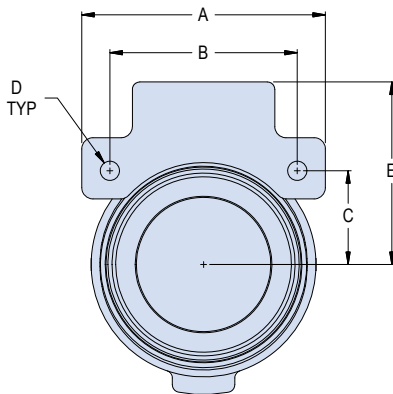
Dimensions														
Shell Size	A Dim		B Dim		C Dim		D ±.002 (.05)		E ±.031 (.79)		F Dim ±.031 (.78)		G Dim ±.031 (.78)	
	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm
10	0.975	20.03	0.785	16.12	0.393	8.07	0.094	1.93	0.825	16.95	0.906	18.61	0.79	16.23
18	1.475	30.30	1.255	25.78	0.628	12.90	0.128	2.63	1.106	22.72	1.465	30.09	1.1	22.59
19	1.537	31.57	1.327	27.26	0.664	13.64	0.128	2.63	1.34	27.52	1.535	31.53	1.338	27.48
21	1.663	34.16	1.452	29.82	0.726	14.91	0.128	2.63	1.465	30.09	1.814	37.26	1.478	30.36



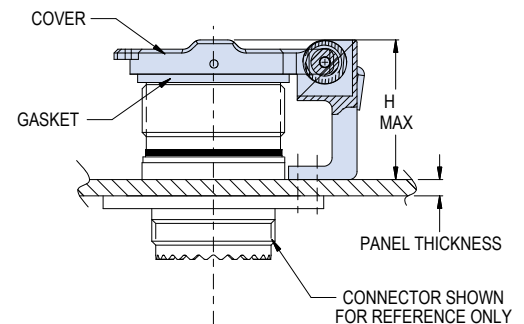
FOR WALL MOUNT RECEPTACLE



FOR JAM NUT MOUNT RECEPTACLE



Material and Finish		
Symbol	Material	Finish Description
M	Aluminum	Electroless nickel
NF		Cadmium with Olive Drab
ZN		Zinc-Nickel with Olive Drab Chromate
ZNU		Zinc-Nickel with Black Chromate
MT		Aluminum / Nickel-PTFE
Z1	SST	passivated



### NOTES

- Cover Fits nominally onto panel with .062 thickness, but will also work for panels as thin as .031
- Hardware Material and finish
  - Cover: see Material and Finish Table
  - Spring: stainless steel/passivate
  - Sleeve: delrin
  - Gasket: silicone/NA





RJ45 AND USB 2.0

# Contacts, Tools, and Accessories



## 667-218 Receptacle Metal Protective Covers for Mighty Mouse Series 801 Connectors

Series 80 Mighty Mouse

**Protect Connectors From Damage** Machined aluminum covers have rubber gaskets for a watertight fit.

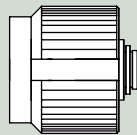
**Stainless Steel Fittings and Rings** Choose small diameter eye fittings for panel attachment. Larger rings fit under the jam nut or over cable jackets.

**Polyurethane-Coated SST Wire Rope** offers high strength, excellent abrasion resistance and good flexibility. Or, select a fluoropolymer jacket for high temperature exposure.

**Braided Nylon Rope** provides excellent flexibility and good abrasion resistance, and can be ordered with slip knot fittings for easy installation on any size cable.

How To Order						
<b>Sample Part Number</b>	<b>667-218</b>	<b>-M</b>	<b>-G</b>	<b>9</b>	<b>04</b>	<b>-6</b>
<b>Series (See Table I)</b>	667-218 = Receptacle Cover (see note 1)					
<b>Material and Finish</b>	<b>M</b> = Aluminum/Electroless Nickel RoHS Compliant <b>MT</b> = Aluminum/Nickel-PTFE RoHS Compliant <b>NF</b> = Aluminum/Cadmium with Olive Drab Chromate <b>ZNU</b> = Aluminum/Zinc-Nickel with Black Chromate <b>Z1</b> = Stainless Steel/Passivated RoHS Compliant					
<b>Attachment Type</b>	<b>D</b> = Bead Chain, CRES, Passivate <b>G</b> = Nylon Rope <b>N</b> = No Attachment <b>S</b> = SST Sash Chain <b>T</b> = SST Wire Rope, No Jacket "SST" = Stainless Steel <b>F</b> = Wire Rope, Nylon Jacket <b>H</b> = SST Wire Rope, Fluoropolymer Jacket <b>R</b> = Wire Rope, PVC Jacket <b>SK</b> = Nylon Rope With Slip Knot <b>U</b> = SST Wire Rope, Polyurethane Jacket					
<b>Shell Size</b>	8, 16, 17, 19					
<b>Attachment Code (See Table II)</b>	Small Ring (Attached to Panel) = 01 thru 06 Solid Ring (Rear Panel Mount Jam Nut Application) = 14 thru 33					
<b>Attachment Length (inches)</b>	Omit for attachment Type N (No Attachment) Example "-6" equals six inch length					

Table I: Cover Style



667-218  
Receptacle Cover

### NOTES

- For plug covers contact factory
- Material and Finish
  - Cover: Aluminum alloy or stainless steel
  - Gasket: Fluorosilicone rubber
  - Wire, Hardware: Stainless steel, passivated

M

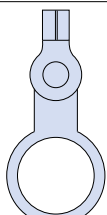
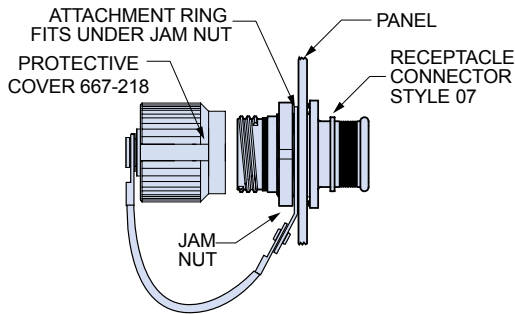


# RJ45 AND USB 2.0 Contacts, Tools, and Accessories



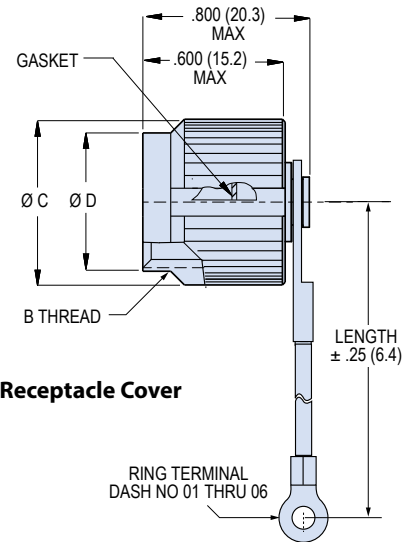
## 667-218 Receptacle Metal Protective Covers for Mighty Mouse Series 801 Connectors

### 667-218 Cover Attachment for RPM Jam Nut Receptacle



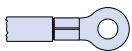
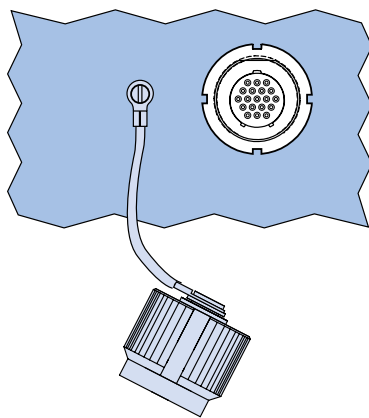
Solid Ring

Atthcmt Code	Shell Size	Ring I.D.		Ring O.D.	
		In. ± .010	mm. ±0.25	In. ± .015	mm. ± 0.38
16	8	.570	14.48	.69	17.40
20	16	1.070	27.17	1.20	30.35



667-218 Receptacle Cover

### 667-218 Cover Attachment to a Panel with a Screw



Small Ring for Attaching Receptacle Covers to a Panel with a Screw

Atthcmt Code	Screw Size	Ring I.D.		Ring O.D.	
		In. ±.005	mm. ±0.13	In. Max.	mm. Max.
01	#4, M3	.126	3.20	.31	7.9
02	#6	.145	3.68	.31	7.9
04	#8, M4	.188	4.78	.31	7.9
06	#10	.197	5.00	.31	7.9

### Dimensions

Shell Size	Ø A Max.		Ø B Max.		Ø D Max.		C Thread
	In.	mm.	In.	mm.	In.	mm.	
8	.653	16.6	.675	17.15	.587	14.9	.5000-.05-.1L
16	1.150	29.2	1.261	32.03	1.092	27.7	1.000-.1P-.2L

### Lanyard Options

	-65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter
	Black polyurethane over stainless steel rope, -65° to +125°C., very flexible, excellent abrasion resistance, excellent resistance to fuels, .080" (2mm) diameter
	Translucent FEP jacket over stainless steel, -65° to +200°C., fair flexibility, good abrasion resistance, .100" diameter
	Stainless steel, #8 chain, .240" (6mm)
	65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter. Length includes .5" (13mm) diameter loop.



RJ45 AND USB 2.0

# Contacts, Tools, and Accessories



## 667-202 Receptacle Metal Protective Cover for Mighty Mouse Series 804 connectors

Series 80 Mighty Mouse

### Protect Connectors From Damage

Machined aluminum covers prevent ingress of contamination and water.

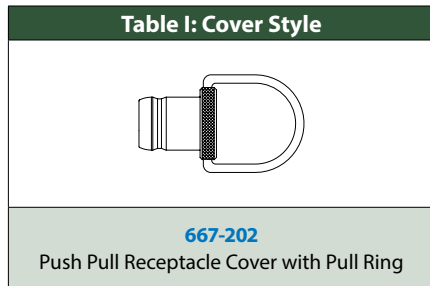
### Stainless Steel Fittings and Rings

Choose small diameter eye fittings for panel attachment. Larger rings fit under the jam nut or over cable jackets. Split rings can be installed on fully assembled cables.

**Polyurethane-Coated SST Wire Rope** offers high strength, excellent abrasion resistance and good flexibility. Or, choose Fluoropolymer<sup>®</sup> jacket for high temperature exposure.

**Braided Nylon Rope** provides excellent flexibility and good abrasion resistance, and can be ordered with slip knot fittings for easy installation on any size cable.

How To Order	
<b>Sample Part Number</b>	<b>667-202 M 8 H 6 -14 R</b>
<b>Series (See Table I)</b>	<b>667-202</b> = Receptacle Cover (see note 1)
<b>Shell Material / Finish</b>	<b>M</b> = Aluminum/Electroless Nickel RoHS Compliant <b>NF</b> = Aluminum/Cadmium with Olive Drab Chromate <b>ZNU</b> = Aluminum/Zinc-Nickel with Black Chromate <b>MT</b> = Aluminum/Nickel-PTFE RoHS Compliant <b>Z1</b> = Stainless Steel/Passivated RoHS Compliant
<b>Shell Size</b>	<b>8, 10, 14, 15, 16</b>
<b>Attachment Type</b>	<b>D</b> = Bead Chain, CRES, Passivate <b>G</b> = Nylon Rope <b>N</b> = No Attachment <b>S</b> = SST Sash Chain <b>T</b> = SST Wire Rope, No Jacket "SST" = Stainless Steel <b>F</b> = Wire Rope, Nylon Jacket <b>H</b> = SST Wire Rope, Fluoropolymer Jacket <b>R</b> = Wire Rope, PVC Jacket <b>SK</b> = Nylon Rope With Slip Knot <b>U</b> = SST Wire Rope, Polyurethane Jacket
<b>Attachment Length (inches)</b>	Omit for attachment Type N (No Attachment) Example: "-6" equals six inch length
<b>Attachment Code (See Table II)</b>	Small Ring = <b>01</b> thru <b>06</b> Large Ring = <b>28</b> thru <b>30</b>
<b>Pull Ring Option</b>	<b>R</b> = Supplied with Pull Ring (Omit for none)



### NOTES

- For plug covers contact factory
- Material and Finish
  - Cover: Aluminum alloy or stainless steel
  - Hardware: Stainless steel, passivate

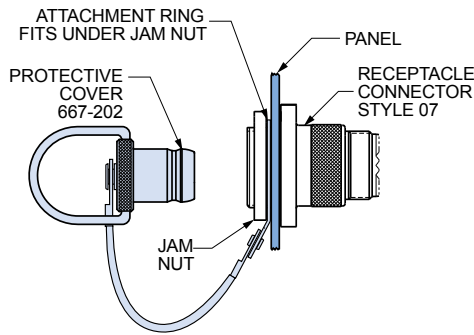


# RJ45 AND USB 2.0 Contacts, Tools, and Accessories



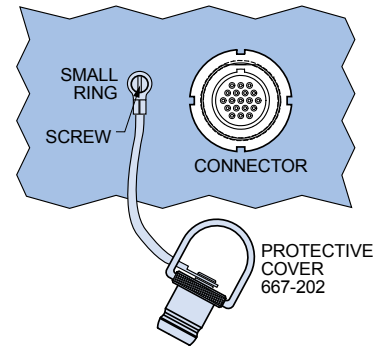
## 667-202 Receptacle Metal Protective Cover for Mighty Mouse Series 804 Connectors

### 667-202 Cover Attachment to RPM Jam Nut Receptacle

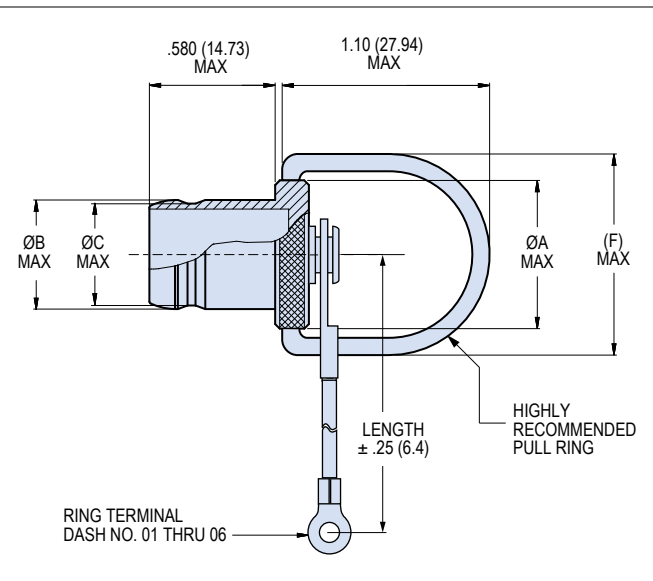


Large Ring	Dia. Code	Shell Size	Ring I.D.		Ring O.D.	
			In.	mm.	In.	mm.
			± .010	±0.25	± .015	± 0.38
<b>28</b>	14, 15	1.015	25.78	1.20	30.48	
<b>21</b>	14, 15	1.135	28.8	1.25	31.8	
<b>30</b>	16	1.380	35.1	1.48	37.6	

### 667-202 Cover Attachment to Panel



Small Ring for Attaching Receptacle Covers to a Panel with a Screw	Dia. Code	Screw Size	Ring I.D.		Ring O.D.	
			In.	mm.	In.	mm.
			±.005	±0.13	Max.	Max.
<b>01</b>	#4, M3	.126	3.20	.31	7.9	
<b>02</b>	#6	.145	3.68	.31	7.9	
<b>04</b>	#8, M4	.188	4.78	.31	7.9	
<b>06</b>	#10	.197	5.00	.31	7.9	



Dimensions								
Shell Size	Ø A Max.		Ø B		Ø C		(F) Max	
	In	mm	In	mm	In	mm	In	mm
<b>8</b>	.614	15.60	.414	10.52	.383	9.73	.87	22.10
<b>10</b>	.773	19.63	.548	13.92	.513	13.03	1.03	26.16
<b>14</b>	.980	24.89	.781	19.84	.749	19.02	1.23	31.24
<b>15</b>	1.045	26.54	.843	21.41	.811	20.60	1.30	33.02
<b>16</b>	Contact Factory							

### Lanyard Options

	-65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter
	Black polyurethane over stainless steel rope, -65° to +125°C., very flexible, excellent abrasion resistance, excellent resistance to fuels, .080" (2mm) diameter
	Translucent FEP jacket over stainless steel, -65° to +200°C., fair flexibility, good abrasion resistance, .100" diameter
	Stainless steel, #8 chain, .240" (6mm)
	65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter. Length includes .5" (13mm) diameter loop.



# RJ45 AND USB 2.0 Contacts, Tools, and Accessories



## 667-262 Receptacle Metal Protective Covers for Mighty Mouse Series 805

Series 80 Mighty Mouse



**Receptacle  
Cover**

**Protect Connectors From Damage**  
Machined aluminum or stainless steel protective covers have fluorosilicone protective covers have fluorosilicone gasket for a watertight fit.

**Stainless Steel Fittings and Rings**  
Choose small diameter eye fittings for panel attachment. Larger rings fit under the jam nut or over cable jackets. Split rings can be installed on fully assembled cables.

**Polyurethane-Coated SST Wire Rope**  
provide resistance and good flexibility. Or, choose a Fluoropolymer jacket for high temperature exposure.

**Braided Nylon Rope** provides excellent flexibility and good abrasion resistance, and can be ordered with slip knot fittings for easy installation on any size cable.

How To Order		667-262	-M	-G	10	04	-6
<b>Sample Part Number</b>							
<b>Series (See Table I)</b>	667-262 = Receptacle Cover (see note 1)						
<b>Shell Material / Finish</b>	<b>M</b> = Aluminum/Electroless Nickel RoHS Compliant <b>NF</b> = Aluminum/Cadmium with Olive Drab Chromate <b>ZNU</b> = Aluminum/Zinc-Nickel with Black Chromate <b>MT</b> = Aluminum/Nickel-PTFE RoHS Compliant <b>Z1</b> = Stainless Steel/Passivated RoHS Compliant						
<b>Attachment Type</b>	<b>D</b> = Bead Chain, CRES, Passivate <b>F</b> = Wire Rope, Nylon Jacket <b>G</b> = Nylon Rope <b>H</b> = SST Wire Rope, Fluoropolymer Jacket <b>N</b> = No Attachment <b>R</b> = Wire Rope, PVC Jacket <b>S</b> = SST Sash Chain <b>SK</b> = Nylon Rope With Slip Knot <b>T</b> = SST Wire Rope, No Jacket <b>U</b> = SST Wire Rope, Polyurethane Jacket "SST" = Stainless Steel						
<b>Shell Size</b>	10, 18, 19, 21						
<b>Attachment Code (See Table II)</b>	Small Ring = 01 thru 06 Large Ring = 18 thru 30						
<b>Attachment Length (inches)</b>	Omit for attachment Type N (No Attachment) Example "-6" equals six inch length						

Table I: Cover Style
<b>667-262</b> Receptacle Cover

### NOTES

- For plug covers contact factory
- Material and Finish
  - Gasket: Fluorosilicone rubber
  - Wire, Hardware: Stainless steel, passivated

M



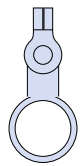
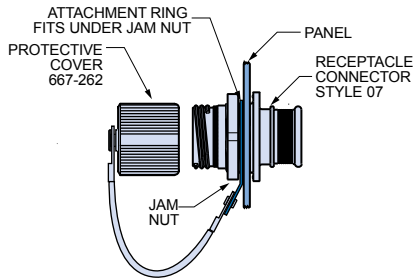
# RJ45 AND USB 2.0 Contacts, Tools, and Accessories



## 667-262 Receptacle Metal Protective Covers for Mighty Mouse Series 805

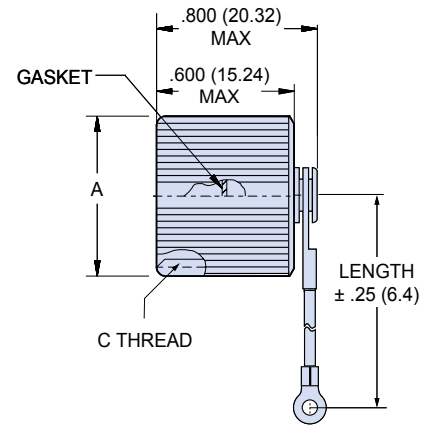
Series 80 Mighty Mouse

### 667-262 Cover Attachment to RPM Jam Nut Receptacle



Solid Ring

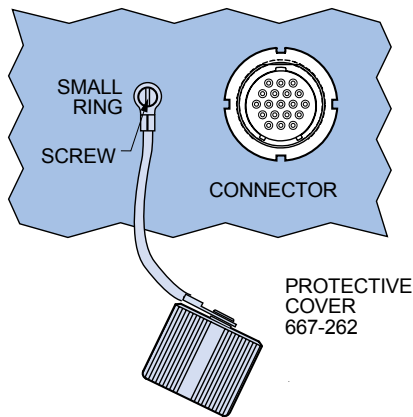
Attchmt Code	Shell Size	Ring I.D.		Ring O.D.	
		In.	mm.	In.	mm.
		±.010	±0.25	±.015	± 0.38
18	10	.695	17.65	.82	20.83
22	18	1.210	30.73	1.31	33.27
23	19	1.275	32.39	1.37	34.80
30	21	1.380	35.05	1.48	37.59



### Dimensions

Shell Size	A		B Thread	C Thread
	In.	mm.		
10	.778	19.76	.6250-.1P-.3L-TS-2A	.6250-.1P-.3L-TS-2B
18	1.278	32.46	1.1250-.1P-.3L-TS-2A	1.1250-.1P-.3L-TS-2B
19	1.340	34.04	1.1870-.1P-.3L-TS-2A	1.1870-.1P-.3L-TS-2B
21	1.490	37.85	1.3125-.1P-.3L-TS-2A	1.3125-.1P-.3L-TS-2B

### 667-262 Cover Attachment to Panel



Small Ring for Attaching Receptacle Covers to a Panel with a Screw

Attchmt Code	Screw Size	Ring I.D.		Ring O.D.	
		In.	mm.	In.	mm.
		±.005	±0.13	Max.	Max.
01	#4, M3	.126	3.20	.31	7.9
02	#6	.145	3.68	.31	7.9
04	#8, M4	.188	4.78	.31	7.9
06	#10	.197	5.00	.31	7.9

### Lanyard Options

	-65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter
	Black polyurethane over stainless steel rope, -65° to +125°C., very flexible, excellent abrasion resistance, excellent resistance to fuels, .080" (2mm) diameter
	Translucent FEP jacket over stainless steel, -65° to +200°C., fair flexibility, good abrasion resistance, .100" diameter
	Stainless steel, #8 chain, .240" (6mm)
	65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter. Length includes .5" (13mm) diameter loop.

M



# Coming Soon SuperSeal™ RJ45 CAT 6A ETHERNET CONNECTORS



RJ45 Cat 6a MIL-  
DTL-38999 Series III  
Type Wall-Mount  
Receptacle and Plug

*High performance, proven reliability environmental connectors housing RJ45 interfaces for mission-critical data transfer applications*

- Superior sealing—IP67 minimum in unmated condition—for complete system protection against harsh elements
- Advanced thru-coupler grounding for superior electrostatic discharge and EMC
- Crimp, solder-cup, PC tail, quadrax, and compliant pin contact variations
- Scoop proof, self-locking, triple-start threaded coupling design of MIL-DTL-38999 Series III type connectors
- RJ45 cordsets with multiple length options available
- Integrated banding platform options for easy cable termination and EMI/RFI shielding
- Optional spring loaded protective covers for sand, dust, and mechanical protection of junction boxes and switches
- RJ45 plug and/or jack interfaces
- High Data Transfer Rates: 10GBase

## SuperSeal™ MIL-DTL-38999 Type RJ45 Connector Selection Guide

			
<p>MIL-DTL-38999 Series III Type Plug Connectors with sealed RJ45 Plug (mated condition) Ethernet interfaces in a two piece coupler design. Easy field termination with Metal Gland backshell or shrink boot sealing options.</p>	<p>MIL-DTL-38999 Series III Type Receptacle Connectors with sealed RJ45 Jack-to-Jack Ethernet interfaces in a one piece coupler design. Metal Gland backshell and spring loaded protective covers available.</p>	<p>MIL-DTL-38999 Series III Type Receptacle Connectors with AS39029 crimp rear-release size #22D contacts</p>	<p>MIL-DTL-38999 Series III Type Receptacle Connectors with sealed RJ45 Jack interface and AS39029 rear-release crimp or solder cup #22D contacts. Size 22 Compliant Pin contacts, Quadrax Contacts or #22 PC Tail contacts also available.</p>

Test Description	SuperSeal MIL-DTL-38999 Series III RJ45 Performance Requirements/Specifications	Procedure Per MIL-DTL-38999 and TIA/EIS-568-B.2
Contact Resistance	Connecting hardware shall conform to A.2; a thru c of TIA/EIA-568-B.2 per IEC 60512-2, Test Method 2A, millivolt level method (shall not exceed 0.025 ohms and 0.050 ohms during subsequent tests)	TIA/EIA-568-B.2, Section A.2 IAW IEC 60512-2, Test method 2A
Insulation Resistance	Per IEC 60512-2, Test 3a, Method C, test voltage 500 VDC (Insulation Resistance minimum of 100 Ohm)	IAW IEC 60512-2, Test Method 2A
Mating Durability	500 to 1000 cycles (finish dependent) with no mechanical damage. Contact Resistance requirement as described above shall be met at 0.050 ohms after 100, 200 and 250 cycles (and 500 per finish). This shall be performed before Thermal Shock and Humidity/ Temperature cycling test and the additional 250 cycles shall be testing after completion in the same manner.	4.5.8 IAW TIA/EIA-568-B.2
Contact Retention	Individual contacts capable of withstanding at least 10 pounds axial load applied uniformly 1 lb/sec	IAW EIA-364-29
Vibration	Per MIL-DTL-38999 Series III Condition VI Letter J; Sine: 10 to 2,000 Hz each of three mutually perpendicular axis total of 36 hours (4 hours each ambient, -40°C and +85°C temperatures) Random: 43.9 rms g's random vibration 16 hours (8 hours longitudinal and perpendicular direction). No electrical discontinuity.	3.27 Sine 4.5.23.3 & 4.5.23.4 Random 4.5.23.1 IAW EIA-364-28
Shock	100 mA max with no discontinuities excess of 1 microsecond. Standard: Per EIA-364-27 – half sine wave @ 300 G. High Impact: Per MIL S 901, Grade A.	4.5 IAW EIA-364-27 IAW MIL S 901
Thermal Shock	Per IEC 60068-2-14 Test Number Nb. • Temperature range -40 - +85°C ± 2°C • Exposure Time: 30 min. • Number of Cycles: 100 • Test Group B contacts shall be inspected and contact resistance measured after 50 cycles and at completion of est. These specimens shall be used for humidity/thermal cycling testing.	TIA/EIA-568-B.2, A.7 IAW IEC 60068-2-14, Test Number Nb
Humidity/ Temperature Cycling	EIA-364-31 with exceptions b, d & e; EIA 364-32 Test Condition A, except steps 2 & 4 shall be 2 minutes max duration; Humidity/Temperature: TIA/EIA-568-B.2, A.8 per IEC 60068-2-38; Temperature for step 1 shall be -45 +0/-5°C. • Temperature for step 3 shall be 85 +5/-0°C Exposure Time: 30 min. • Number of Cycles: 100 No blistering, peeling or separation of the plating or other damage detrimental to operation of connector	4.5.11.1 or 4.5.11.2 4.5.13 IAW EIA-364-31, Method IV with temperature exceptions; IAW EIA-364-32, Test cond. A; IAW IEC 60068-2-14, Test Method Z/AD
Salt Spray	5% solution, 34°-36°C. 48-1000 hours, depending on finish. Unmated connectors show no lifting of plated coating or exposure of basis material under 3X magnification which adversely affects performance.	4.5.13 IAW EIA-364-26
Water Immersion	1 Meter for 1 hour, Unmated	MIL-STD-810 method 512
EMI Shielding	Per IEC 60603-7, 1 MHz to 1000 MHz with effectiveness of 22 dB.	4.5.28 EIA-364-66
Fluid Resistance	Per EIA-364-10 unmated connector shall not experience any damage detrimental to performance after immersion in fluid.	4.5.30 IAW EIA-364-10

### MIL-DTL-38999 Connector and Cable Assembly Material and Finish Codes

Code	Material	Finish	Finish Specification	Hrs. Salt Spray	Electrical Conductivity	Operating Temp. Range	RoHS Compliance
ME	Aluminum	Electroless Nickel	MIL-DTL-24308 Class K	96	Yes		Yes
MT	Aluminum	Nickel PTFE	SAE AMS2454	500	Yes	-65° to +175°C	Yes
NF	Aluminum	Cadmium, Olive Drab	SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel	500	Yes	-65 to +175°C	No
ZR	Aluminum	Zinc-Nickel, Black	ASTM B841 Grade 5 over electroless nickel	500	Yes	-65 to +175°C	Yes

### MIL-DTL-38999 RJ45 Cat6a Electrical Specs for Plug & Receptacle

Rating	Category 6a
Data rate	10GBase
Voltage rating	1000 Volts
Current rating	1.5 Amps (max)
Frequency	500 MHz (max)
Wiring	Straight through
Shield continuity	Continuous thru-coupler
Cable length	100 M (max)



For more information contact Glenair at **818-247-6000** or visit our website at **www.glenair.com**  
U.S. CAGE code 06324





HDMI 2.0 CONNECTORS

# MIL-DTL-38999 Series III Type Connectors



Product selection guide

N



**233-360**

E-2

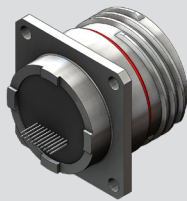
SuperSeal™ HDMI 2.0 Type A Panel Mount Couplers with Accessory Threads



**233-364**

E-9

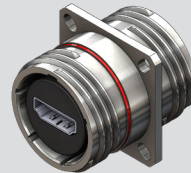
SuperSeal™ HDMI 2.0 Type A Panel Mount Couplers with Break-out Board



**233-362**

E-5

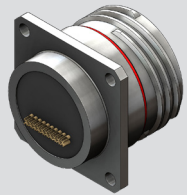
SuperSeal™ HDMI 2.0 Type A Panel Mount Couplers with PC Tails



**233-365**

E-12

SuperSeal™ HDMI 2.0 Type A Panel Mount Feed-thru Couplers



**233-363**

E-7

SuperSeal™ HDMI 2.0 Type A Panel Mount Couplers with Solder Cups



**233-368**

E-14

SuperSeal™ HDMI 2.0 Type A Plug Adapter



SERIES 23

# SuperSeal™

## HDMI 2.0 Ruggedized solutions



SuperSeal is part of the SuperNine family of 38999 Type connectors featuring improved sealing and grounding capabilities to house commercial HDMI 2.0 interfaces. All superseal connectors are IP68 rated in the mated condition and IP67 rated in the unmated. HDMI 2.0 is the defacto standard for transmission of high-definition video signals from an HDMI-source to compatible monitors or video projectors. A ruggedized solution for C4ISR mobile field applications, SuperSeal HDMI 2.0 connectors provide military grade connector performance including metal-to-metal grounding, polarization keying, and non-corrosive conductive material and finish options. The HDMI 2.0 protocol supports audio/video data transmission rate of 18.0 Gbit/s and a maximum data rate of up to 14.4 Gbit/s and allows for simple plug-and-play connectivity and *hot-swappable* addition of external peripherals without restarting systems.

- **Superior sealing—IP67 unmated—for complete system protection against water, sand and dust**
- **Highly durable SuperSeal™ insert design, provides enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance**
- **Crimp, solder-cup, PC tail, break-out board, feed-thru and cable assembly designs available**



**HDMI 2.0 Performance Specifications**

Property	MIL-DTL-38999 Series III Type
----------	-------------------------------

**Material and Finish**

<b>Shell/Coupling and Plating</b>	Complete list of finishes is available in Section A of the SuperSeal catalog
<b>Contacts</b>	Copper alloy/gold plate
<b>HDMI Insulator</b>	LCP
<b>Grommet, Peripheral Seal, Interfacial Seal, O-ring</b>	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988
<b>Shell Size</b>	17 Consult factory for other shell size options

**Electrical Specifications**

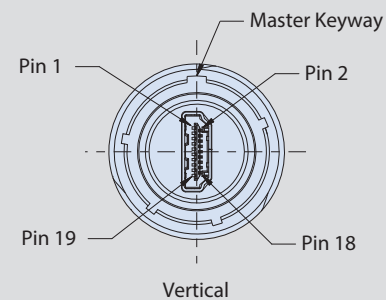
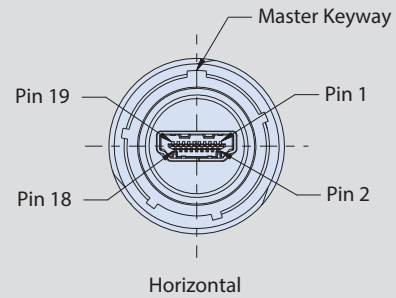
<b>Data Rate</b>	Up to 18 Gbps
<b>Power Usage</b>	+5.0 volts
<b>Current Rating</b>	0.3 Amps min.
<b>D.W.V.</b>	300 VAC
<b>I.R.</b>	100 Mega Ohms min
<b>Cabling Length</b>	10 Meters Max (recommended)
<b>Shielding</b>	Continuous through coupler or continuous coupler to shell

**Environmental/Mechanical Performance**

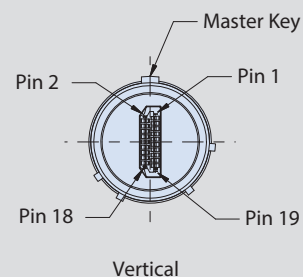
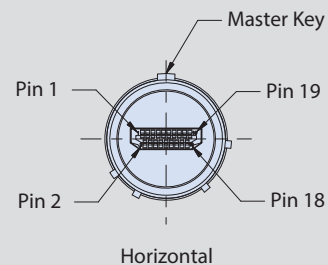
<b>Sealing</b>	IP67 unmated IP68 mated
<b>Outgassing</b>	<b>Mod Code 186S</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0
<b>Operating Temperature</b>	-20°C to +85°C
<b>Backshell Interface</b>	MIL-DTL-38999 Designator H
<b>Mating System</b>	Triple-start stub ACME
<b>Mating Cycles</b>	500

**HDMI 2.0 CONNECTOR ORIENTATION OPTIONS**

**Receptacle**



**Plug**





# HDMI 2.0 CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 233-360 Panel mount couplers with accessory threads

N



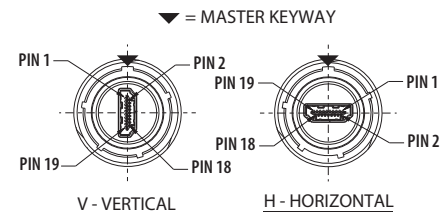
Part Number Development						
Sample Part Number	233-360	NF	00	-17	N	H
Basic Number	233-360					
Finish	See Material and Finish table					
Connector Style <sup>1</sup>	See Connector Style table					
Shell Size	17					
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999					
HDMI Orientation	H = Horizontal V = Vertical					
Shrink Boot	T = Part No. 770-028 (Omit for None)					

Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel
AB	Marine Bronze
XM	Composite/Electroless Nickel

Additional material / finish options available consult factory

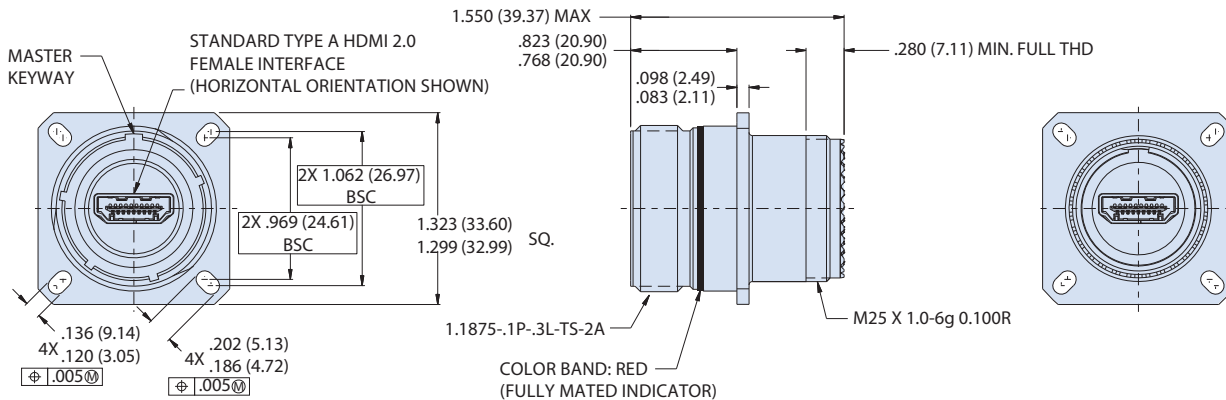
Connector Style	
00	Wall mount receptacle with slotted holes
D0	Wall mount receptacle with thru-holes
CM	Wall mount receptacle with metric clinch nuts
CS	Wall mount receptacle with standard clinch nuts
07	Rear panel mount, jam nut receptacle
05	Inline receptacle

### HDMI 2 FEMALE ORIENTATION OPTIONS (PARTIAL FRONT VIEWS SHOWN)



All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES



### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- HDMI Type A female port, front and back
- Front panel mount only
- Material and Finish
  - Shell, jam nut: see material finish table
  - Seals: silicone based elastomer
  - Hardware: stainless steel/passivated
- HDMI:
  - Housing: thermoplastic/NA
- Shell: copper alloy nickel plated
- Terminal: copper alloy/gold plated
- HDMI performance: design meets HDMI 2.0 protocol requirement including 18Gbps of bandwidth and supports 4K resolution and 60Hz



# HDMI 2.0 CONNECTORS

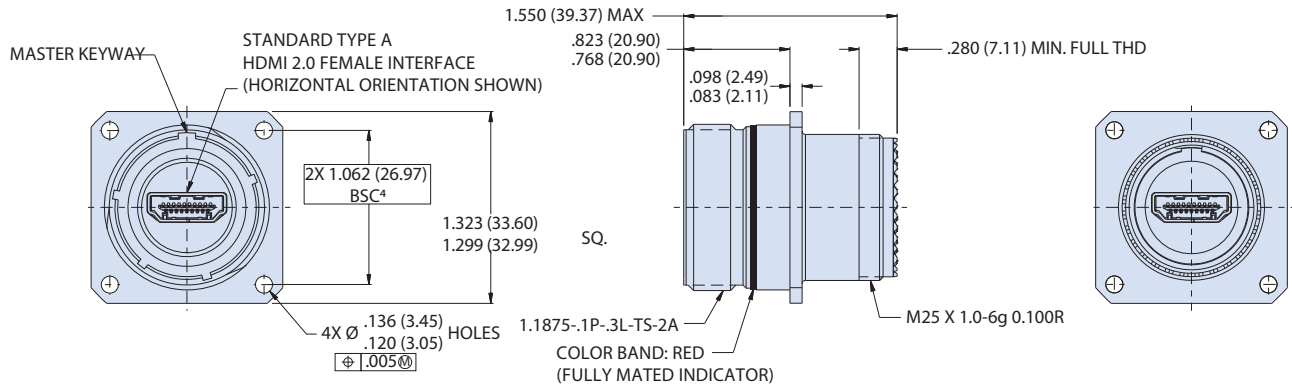
## MIL-DTL-38999 Series III Type Connectors



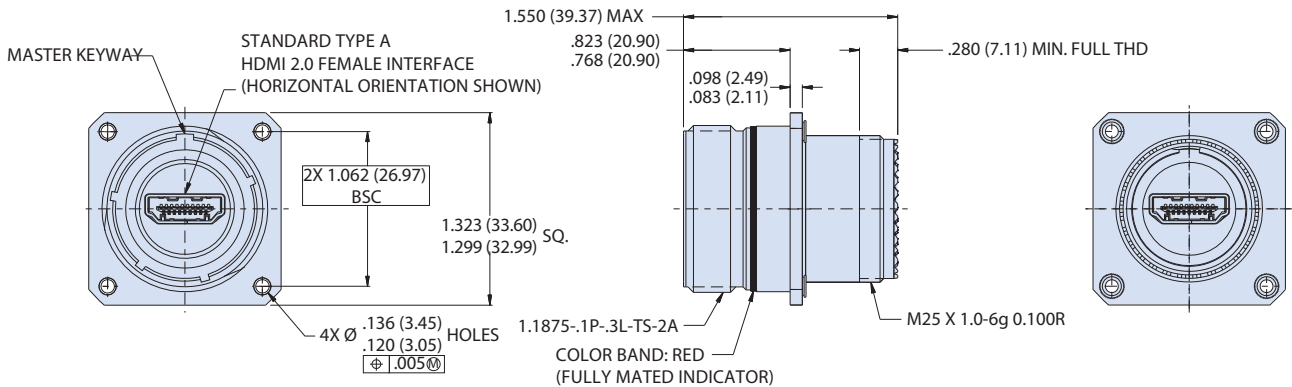
### 233-360 Panel mount couplers with accessory threads



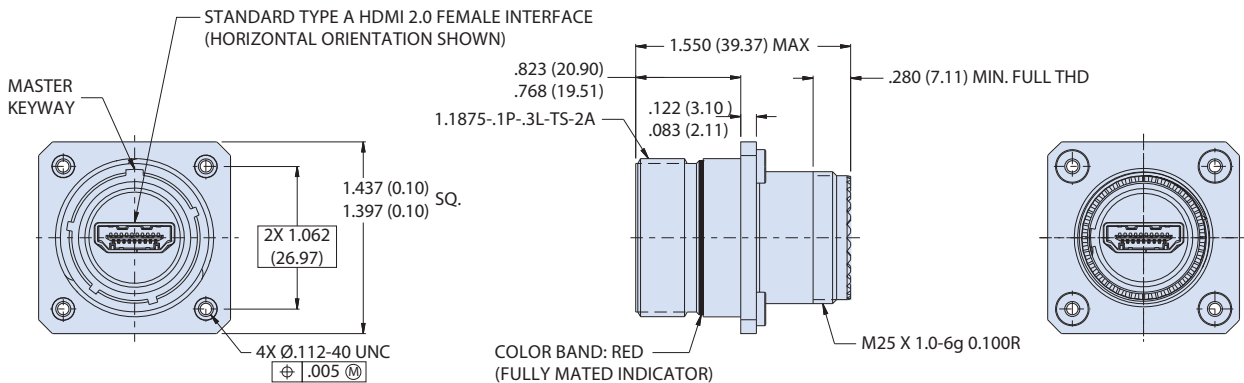
#### DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES



#### CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



#### CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS





# HDMI 2.0 CONNECTORS

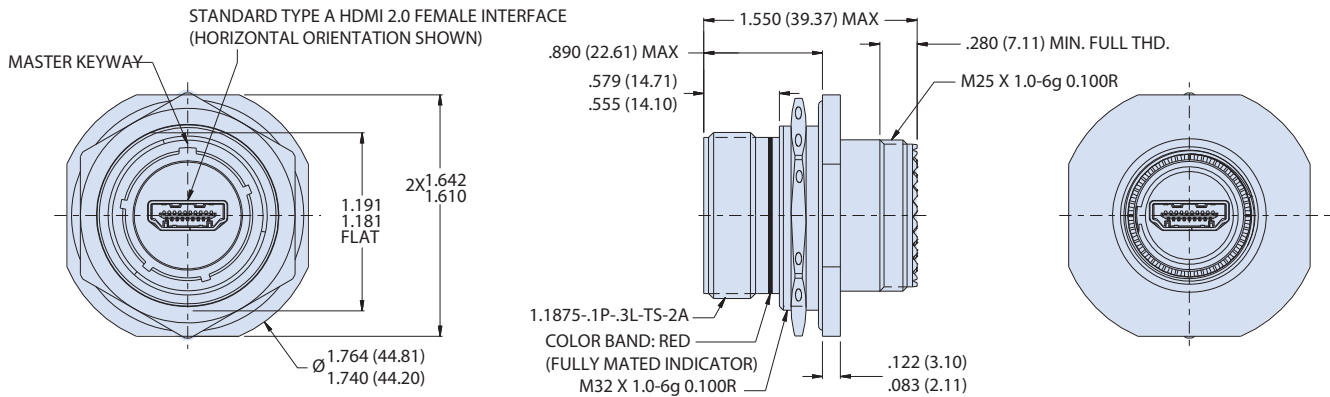
## MIL-DTL-38999 Series III Type Connectors



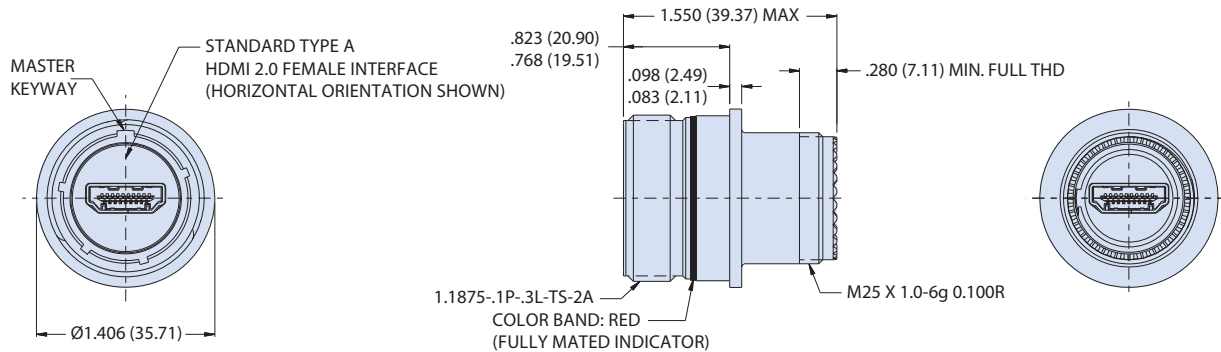
### 233-360 Panel mount couplers with accessory threads

N

#### 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE



#### 05 - CABLE RECEPTACLE





# HDMI 2.0 CONNECTORS

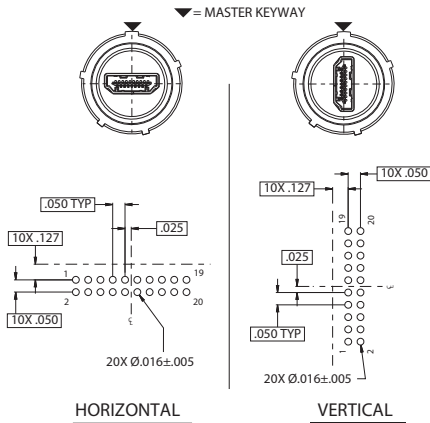
## MIL-DTL-38999 Series III Type Connectors



### 233-362 Panel mount receptacles with PC tails



#### HDMI 2 FEMALE ORIENTATION OPTIONS PCB LAYOUT (SOLDER SIDE)



Part Number Development						
Sample Part Number	233-362	NF	00	-17	N	H
Basic Number	233-362					
Finish	See Material and Finish table					
Connector Style <sup>1</sup>	See Connector Style table					
Shell Size	17					
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999					
HDMI Orientation	H = Horizontal V = Vertical					
Shrink Boot	T = Part No. 770-028 (Omit for None)					

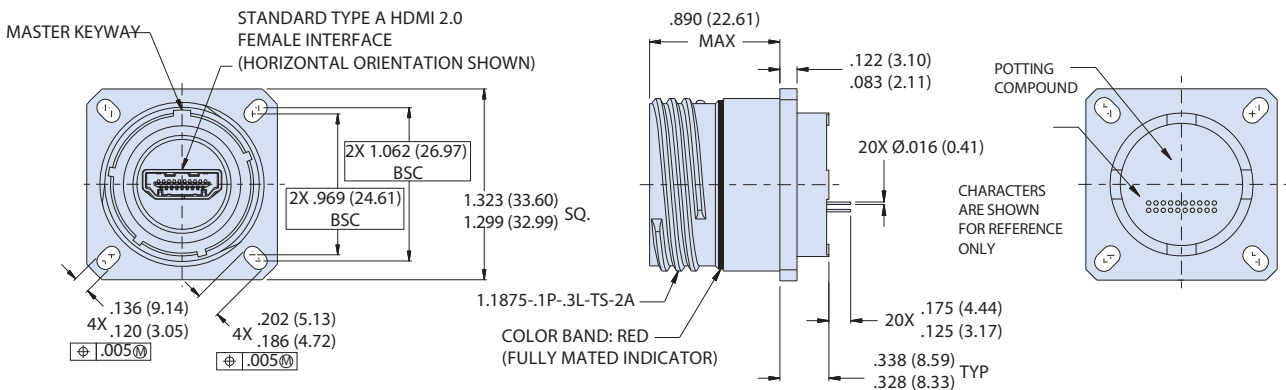
Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel
AB	Marine Bronze
XM	Composite/Electroless Nickel

Additional material / finish options available consult factory

Connector Style	
00	Wall mount receptacle with slotted holes
D0	Wall mount receptacle with thru-holes
CM	Wall mount receptacle with metric clinch nuts
07	Rear panel mount, jam nut receptacle

All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

#### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES



#### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- HDMI Type A female port, front and back
- Front panel mount only
- Material and Finish
  - Shell, jam nut: see material/finish table
  - Seals: silicone based elastomer
  - Hardware: stainless steel/passivated
- HDMI:
  - Housing: thermoplastic/NA
  - Shell: copper alloy nickel plated
  - Terminal: copper alloy/gold plated
- HDMI performance: design meets HDMI 2.0 protocol requirement including 18Gbps of bandwidth and supports 4K resolution and 60Hz



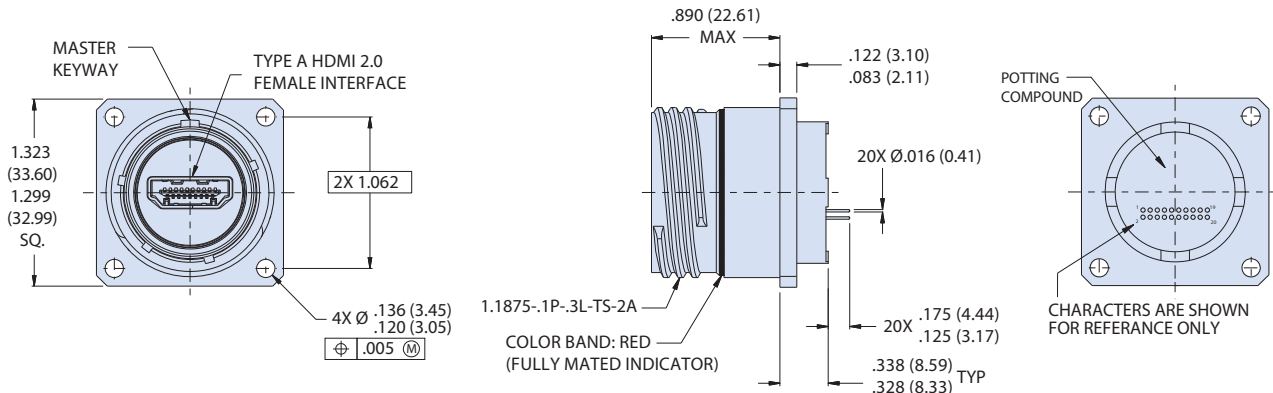
# HDMI 2.0 CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

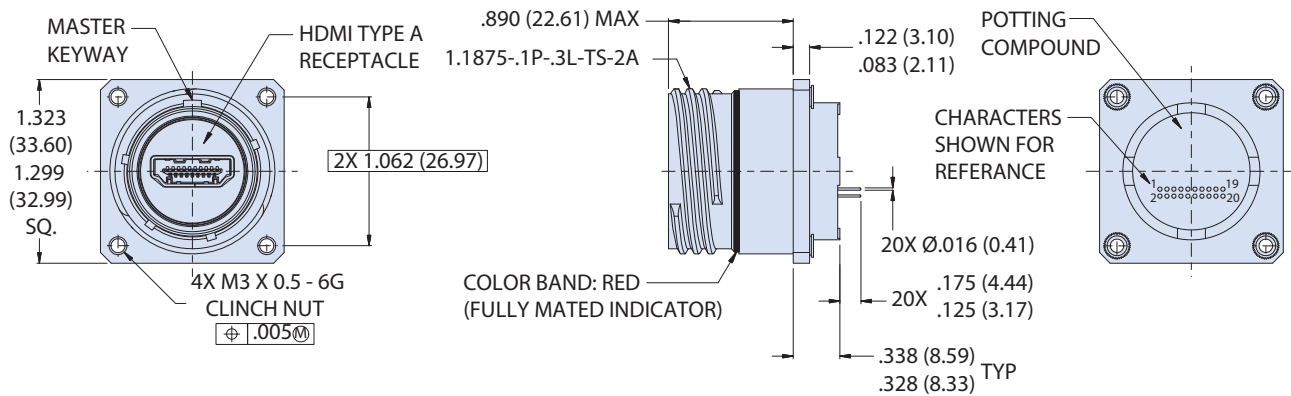


### 233-362 Panel mount receptacles with PC tails

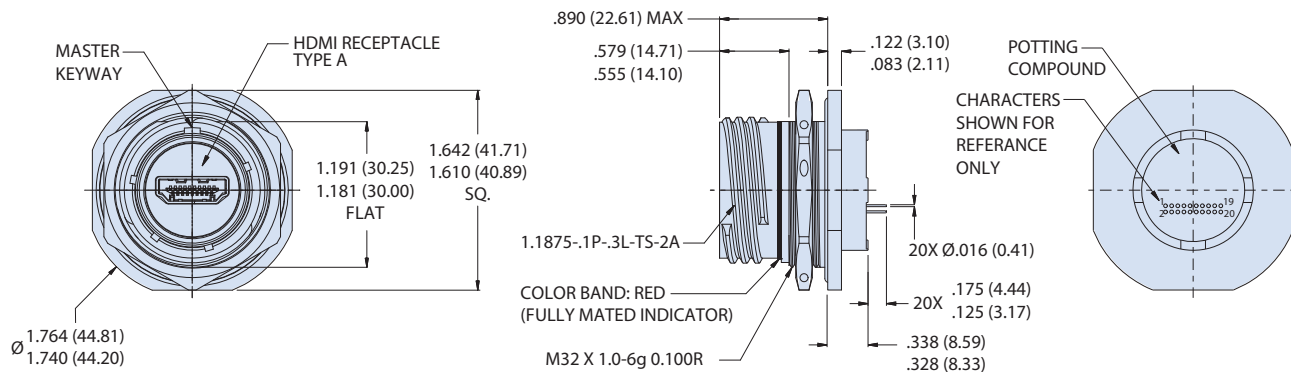
#### DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES



#### CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



#### 07 - JAM-NUT MOUNT RECEPTACLE





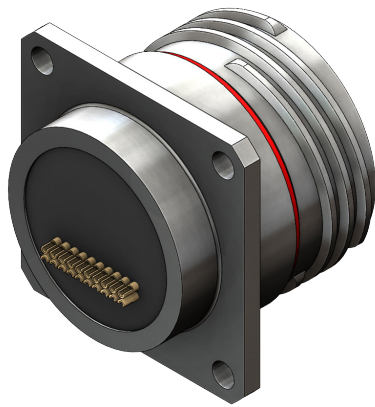


# HDMI 2.0 CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 233-363 Panel mount connectors with solder cups



Part Number Development						
Sample Part Number	233-363	NF	00	-17	N	H
Basic Number	233-363					
Finish	See Material and Finish table					
Connector Style <sup>1</sup>	See Connector Style table					
Shell Size	17					
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999					
HDMI Orientation	H = Horizontal V = Vertical					



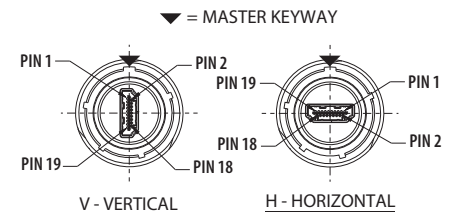
Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel
AB	Marine Bronze
XM	Composite/Electroless Nickel

Additional material / finish options available consult factory

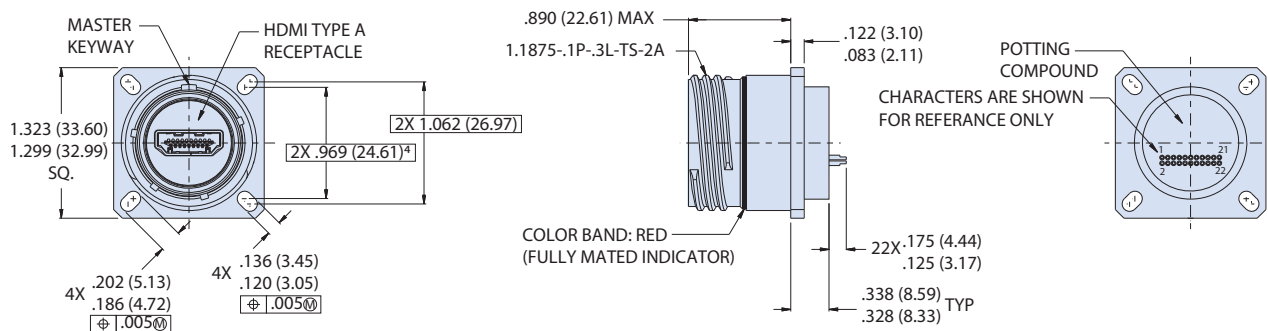
Connector Style	
00	Wall mount receptacle with slotted holes
D0	Wall mount receptacle with thru-holes
CM	Wall mount receptacle with metric clinch nuts
07	Rear panel mount, jam nut receptacle

All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.

### HDMI 2 FEMALE ORIENTATION OPTIONS (PARTIAL FRONT VIEWS SHOWN)



### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES



### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- HDMI Type A female port, front and back
- Front panel mount only
- Material and Finish
  - Shell, jam nut: see material finish table
  - Seals: silicone based elastomer
  - Hardware: stainless steel/passivated
- HDMI:
  - Housing: thermoplastic/NA
  - Shell: copper alloy nickel plated
  - Terminal: copper alloy/gold plated
- HDMI performance: design meets HDMI 2.0 protocol requirement including 18Gbps of bandwidth and supports 4K resolution and 60Hz



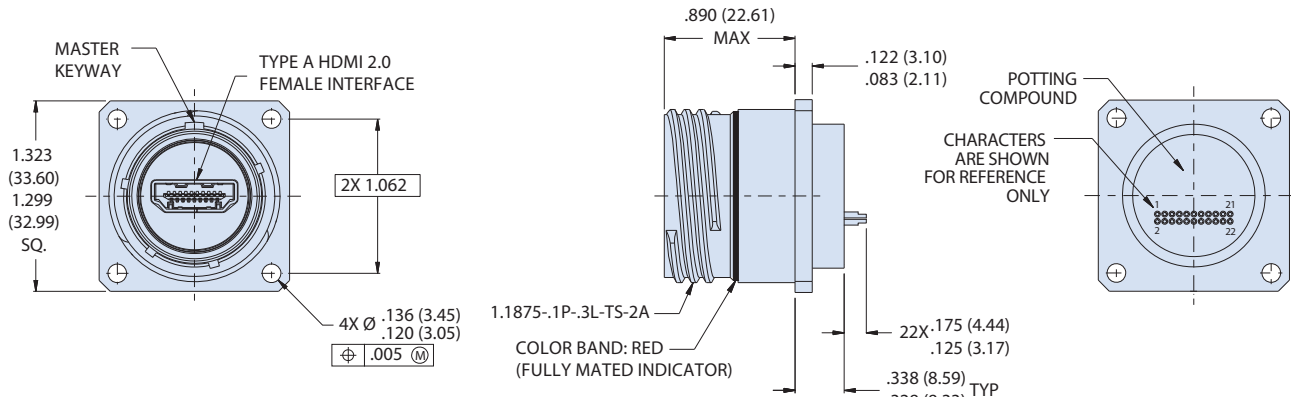
# HDMI 2.0 CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

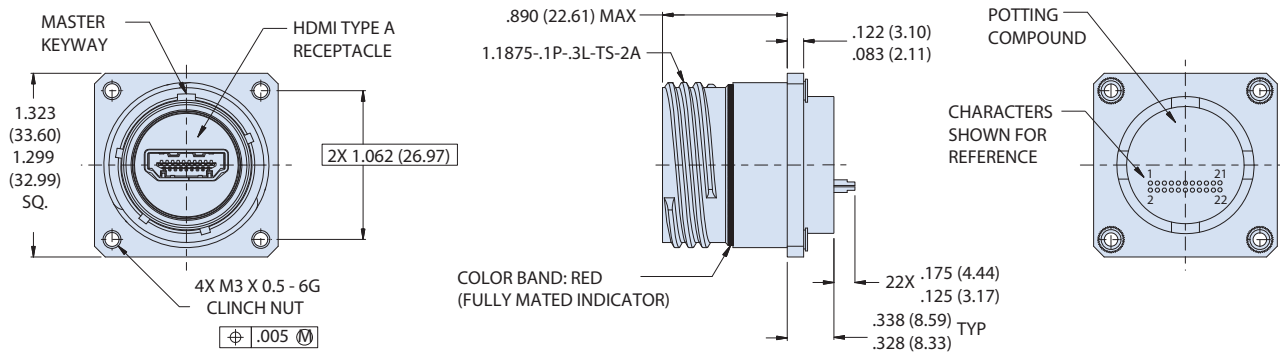


### 233-363 Panel mount receptacles with solder cups

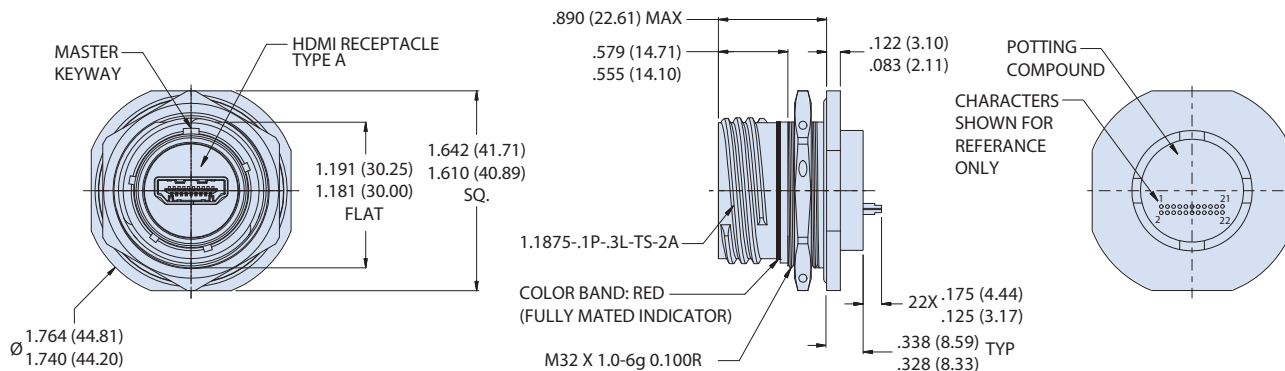
#### DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES



#### CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



#### 07 - JAM-NUT MOUNT RECEPTACLE





# HDMI 2.0 CONNECTORS

# MIL-DTL-38999 Series III Type Connectors



## 233-364 Panel mount receptacles with break-out board



Part Number Development						
Sample Part Number	233-364	NF	00	-17	N	H
Basic Number	233-364					
Finish	See Material and Finish table					
Connector Style <sup>1</sup>	See Connector Style table					
Shell Size	17					
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999					
HDMI Orientation	H = Horizontal V = Vertical					
Shrink Boot	T = Part No. 770-028 (Omit for None)					

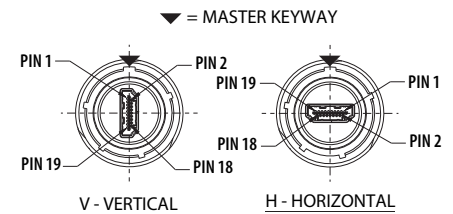


Material and Finish	
NF	Aluminum/Cadmium, Olive Drab
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel
AB	Marine Bronze
XM	Composite/Electroless Nickel

Additional material / finish options available consult factory

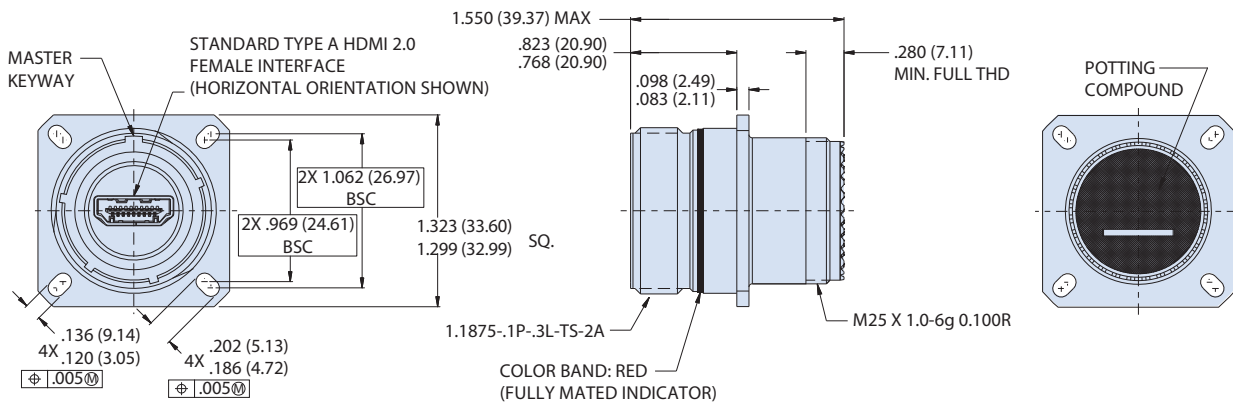
Connector Style	
00	Wall mount receptacle with slotted holes
01	Wall mount receptacle with thru-holes
CM	Wall mount receptacle with metric clinch nuts
CS	Wall mount receptacle with standard clinch nuts
07	Rear panel mount, jam nut receptacle
05	Inline receptacle

### HDMI 2 FEMALE ORIENTATION OPTIONS (PARTIAL FRONT VIEWS SHOWN)



All external dimensions, features, etc. compliant with D38999/20, /24, & /26. Consult factory for additional information.

### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES



### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- HDMI Type A female port, front and back
- Front panel mount only
- Material and Finish
  - Shell, jam nut: see material finish table
  - Seals: silicone based elastomer
  - Hardware: stainless steel/passivated
- HDMI:
  - Housing: thermoplastic/NA
  - Shell: copper alloy nickel plated
  - Terminal: copper alloy/gold plated
- HDMI performance: design meets HDMI 2.0 protocol requirement including 18Gbps of bandwidth and supports 4K resolution and 60Hz



# HDMI 2.0 CONNECTORS

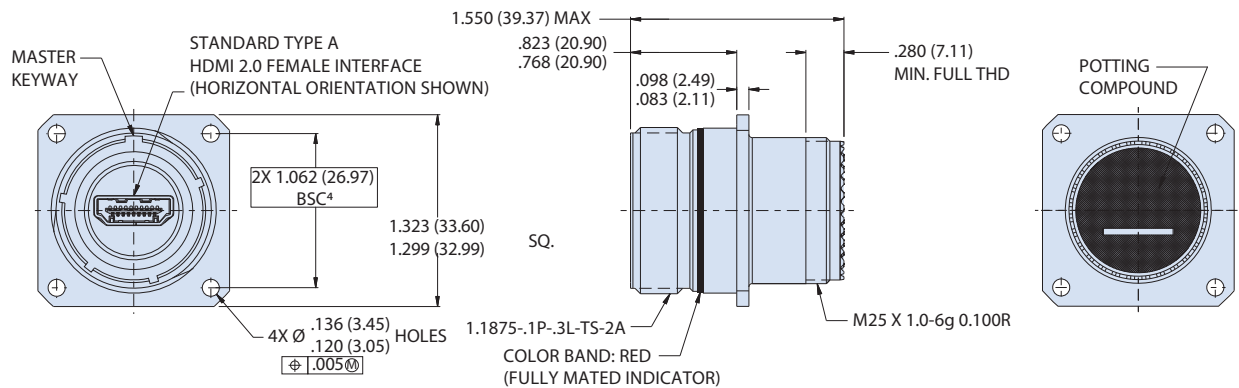
## MIL-DTL-38999 Series III Type Connectors



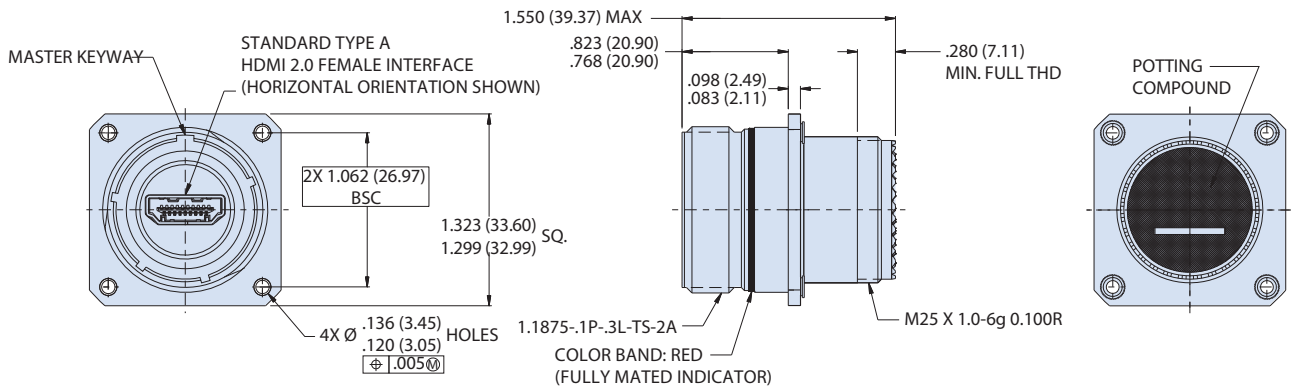
### 233-364 Panel mount receptacles with break-out board

N

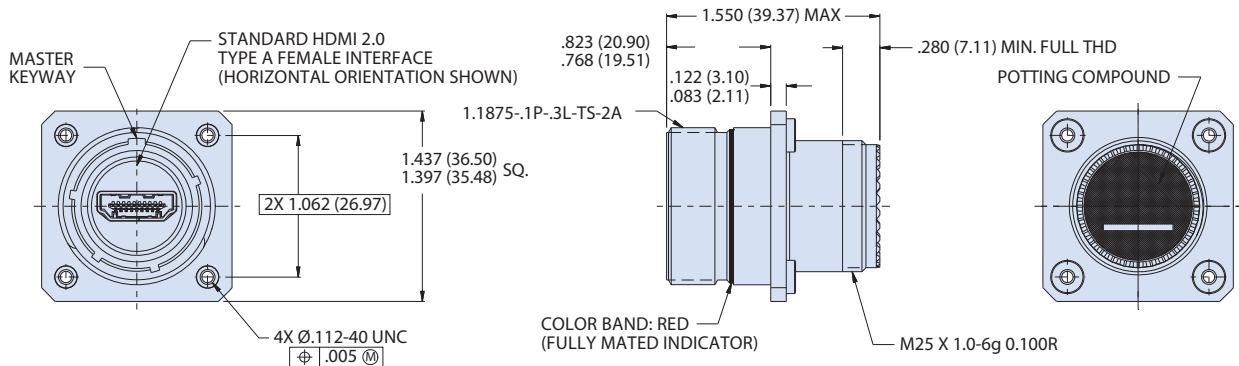
#### DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES



#### CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



#### CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS





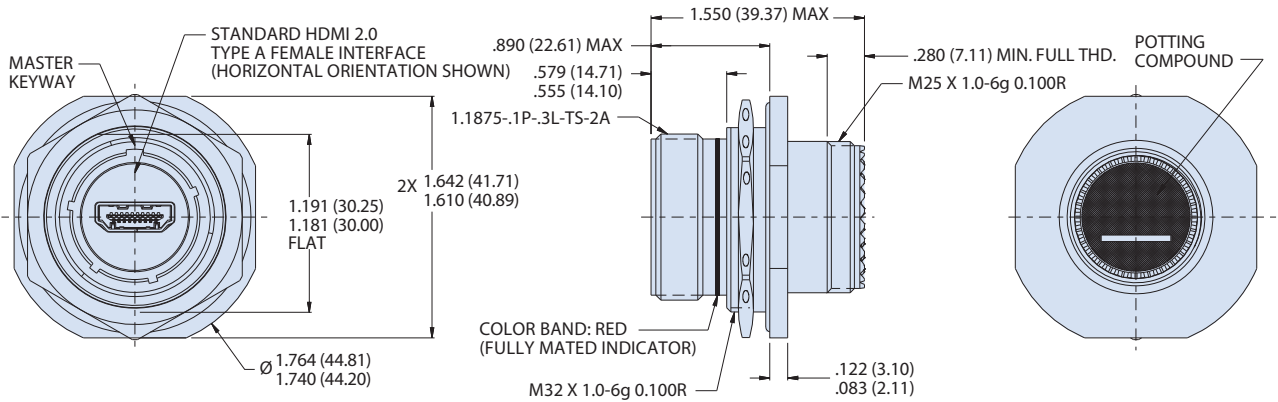
HDMI 2.0 CONNECTORS

MIL-DTL-38999 Series III Type Connectors

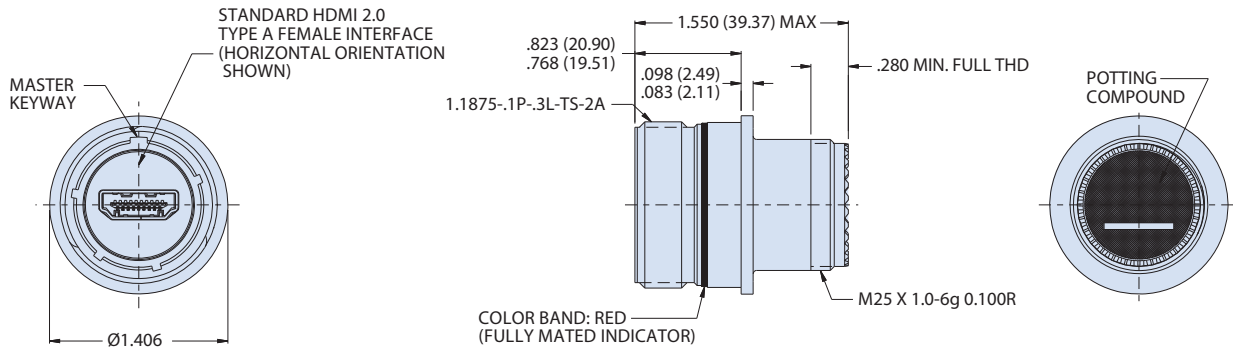


233-364 Panel mount receptacles with break out board

**07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE**



**05 - CABLE RECEPTACLE**



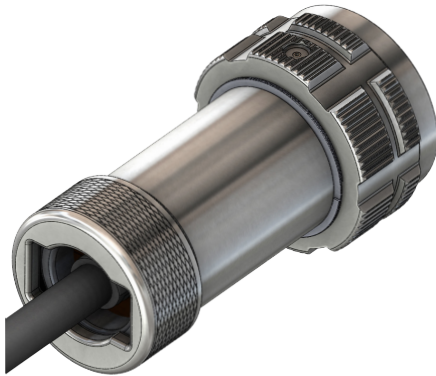


# HDMI 2.0 CONNECTORS MIL-DTL-38999 Series III Type Connectors

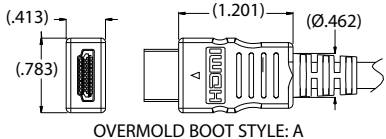
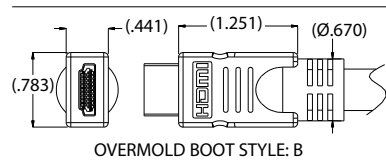
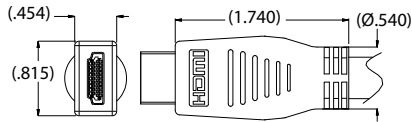


## 233-368 Plug, accepts HDMI Plug

N



Part Number Development							
Sample Part Number	233-368	NF	G6	A	17	N	H
Basic Number	233-368						
Finish	See Material and Finish table						
Connector Style <sup>1</sup>	G6 = Plug						
Overmold Style	A, B, C						
Shell Size	17						
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999						
HDMI Orientation	H = Horizontal V = Vertical						

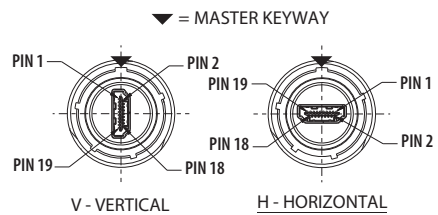


Material and Finish	
NF	Aluminum/Cadmium, Olive Drab (500 hour salt spray)
ME	Aluminum/Electroless Nickel
MT	Aluminum/Nickel PTFE
ZR	Aluminum/Black Zinc-Nickel (Tri-valent CR)
AB	Marine Bronze
XM	Composite/Electroless Nickel

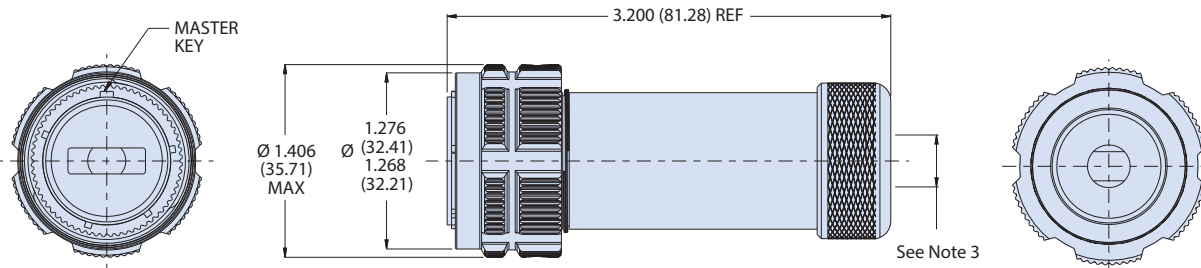
Additional material / finish options available consult factory

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

### HDMI 2 FEMALE ORIENTATION OPTIONS (PARTIAL FRONT VIEWS SHOWN)



### G6 - PLUG



### NOTES

- See Section A for alternate key/keyway positions and panel cutout dimensions
- Meets IP67 in unmated condition, IP68 mated
- Design accommodates cable outside diameter .280 (7.112) nominal
- Accommodates HDMI patch cords with standard plug interface
- Material and Finish
  - Shell, jam nut: see material finish table
  - Seals: silicone based elastomer
  - Hardware: stainless steel/passivated
- HDMI:
  - Housing: thermoplastic/NA
  - Shell: copper alloy nickel plated
  - Terminal: copper alloy/gold plated



# HDMI 2.0 CONNECTORS

## MIL-DTL-38999 Series III Type Connectors

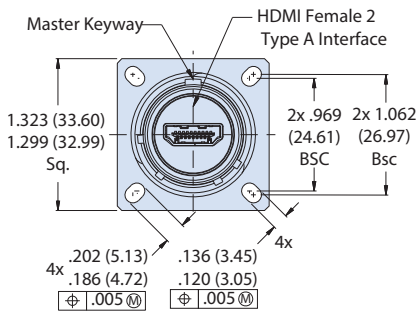


### 2330-0455 Cable assembly with commercial HDMI 2.0

N

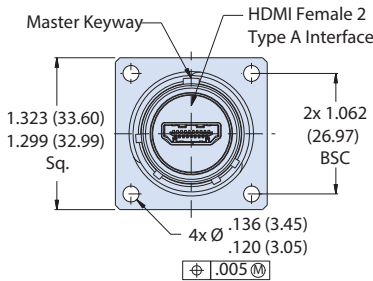
Part Number Development	
Sample Part Number	2330-0455 M 07 -17 N H -X
Series / Basic Part No.	2330-0455
P1 Material/Finish	NF = Aluminum/cadmium olive drab ME = Aluminum/electroless nickel MT = Aluminum/nickel PTFE ZR = Aluminum/zinc-nickel
P1 Connector Style	00 = Wall mount receptacle with slotted holes D0 = Wall mount receptacle with round holes 07 = Jam-nut receptacle G6 = Plug
Shell Size	17
Alternate Polarization	A, B, C, D, E, N = Normal; Per MIL-DTL-38999
HDMI Orientation	H = Horizontal V = Vertical
Overall Length	Provided in 1 foot increments; 01 - 1.0 ft

00 - Wall Mount Receptacle With Slotted Holes



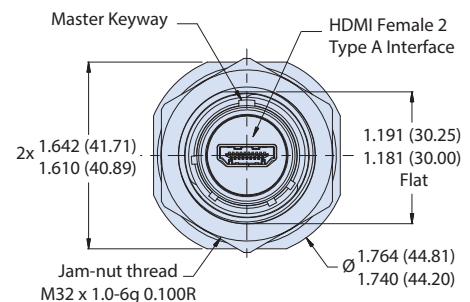
(Horizontal Orientation Shown)

D0 - Wall Mount Receptacle With Round Holes

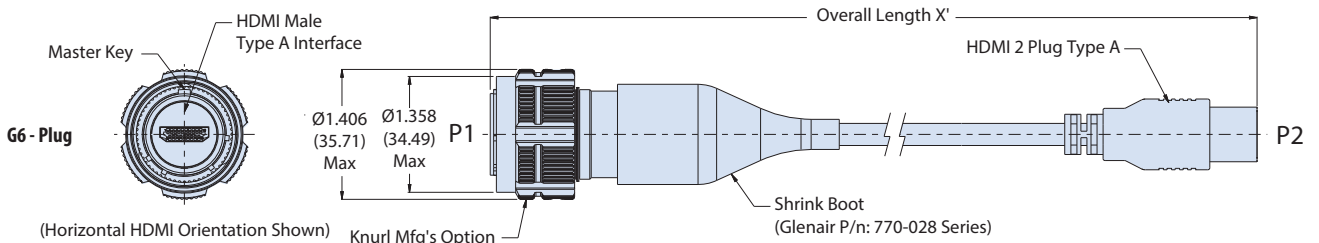
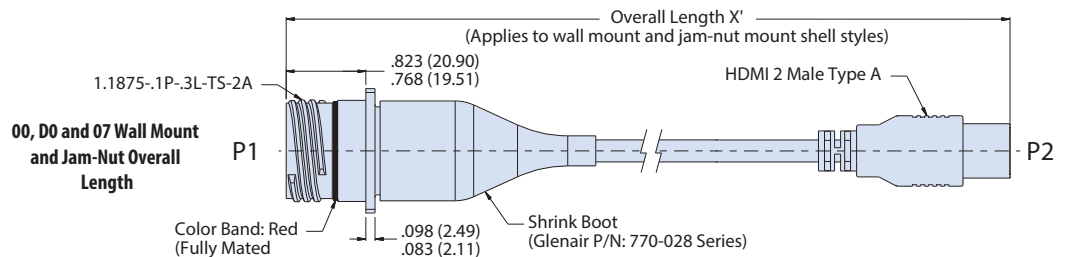


(Horizontal Orientation Shown)

07 - Jam Nut Receptacle



(Horizontal Orientation Shown)



(Horizontal HDMI Orientation Shown)

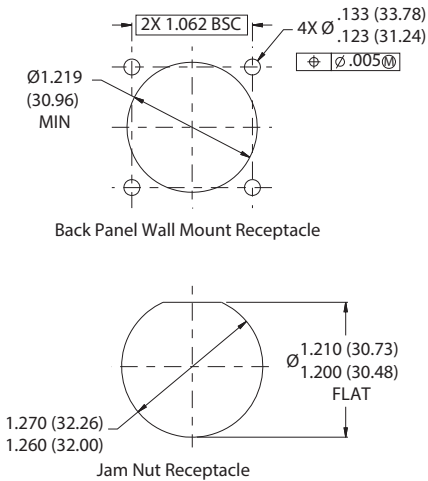
# SuperNine® Datalink connectors

## 2330-0455 Cable assembly with HDMI 2

### MIL-DTL-38999 Series III



Recommended Mounting Holes & Cut Outs



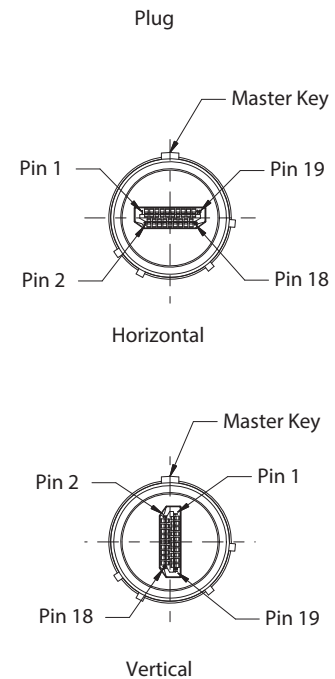
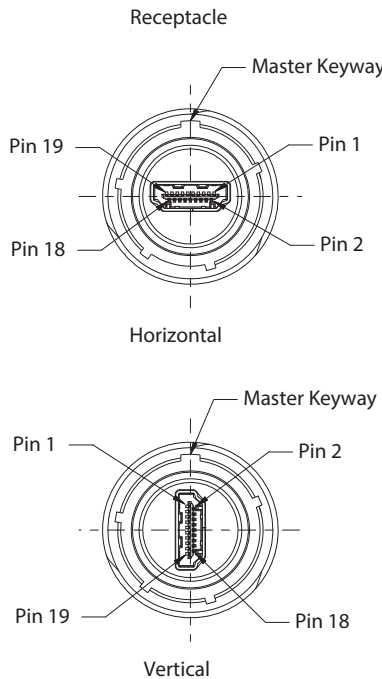
HDMI 2, Connector Pin Assignments			
Pin	Signal	Pin	Signal
1	TMDS DATA2+	11	TMDS CLOCK SHIELD
2	TMDS DATA2 SHIELD	12	TMDS CLOCK-
3	TMDS DATA2-	13	CEC
4	TMDS DATA1+	14	UTILITY
5	TMDS DATA1 SHIELD	15	SCL
6	TMDS DATA1-	16	SDA
7	TMDS DATA0+	17	DDC/CEC GROUND
8	TMDS DATA0 SHIELD	18	+5V POWER
9	TMDS DATA0-	19	HOT PLUG DETECT
10	TMDS CLOCK+		

### HDMI 2 ORIENTATION OPTIONS (PARTIAL FRONT VIEWS SHOWN)

#### NOTES

- Material/finish
  - Shell, jam-nut, barrel: see part number development
  - Insulators: high grade rigid dielectric/N.A.
  - Contacts: copper alloy, gold plated
  - Seals: silicone based elastomer
  - HDMI (shell/contacts): copper alloy
  - Dielectric: thermoplastic PA9T UL94V-0
  - Hardware: stainless steel/passivated
- HDMI specifications:
  - Performance:*
    - HDMI 2
  - Electrical:*
    - Current rating: 0.5 amps min
    - DWV: 300 Vac
    - I.R.: 100 Meg Ohms min.
    - Operating temperature range: -20°C to +85°C
- Connector interface (P1) per MIL-DTL-38999, Series III, Shell size 17
- Connector front interface with HDMI Type A male is designed to mate with HDMI receptacle patch cord or Glenair HDMI receptacle connector 2330-0441

Connector front interface with HDMI Type A female is designed to mate with HDMI male patch cord







# HDMI 2.0 CONNECTORS

## MIL-DTL-38999 Series III Type Connectors



### 233-367 HDMI to PC Tail connector receptacle with standoffs



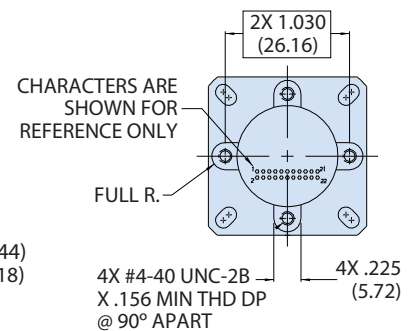
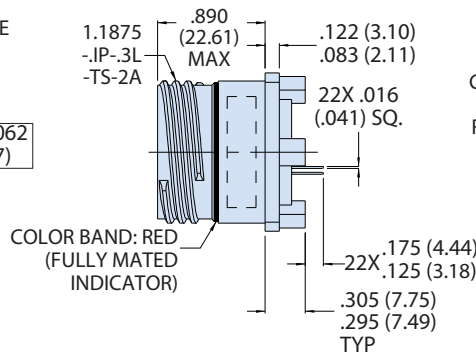
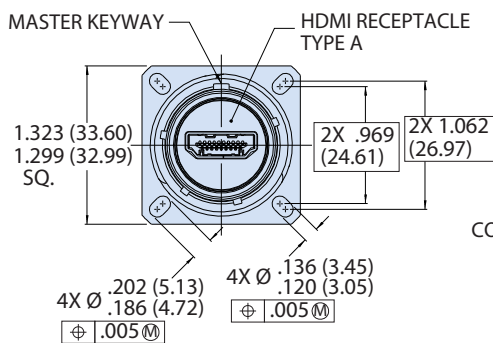
Part Number Development						
Sample Part Number	233-367	NF	00	-17	N	H
Basic Number	233-367					
Finish	See Material and Finish table					
Connector Style	See Connector Style table					
Shell Size	17					
Alternate Key Position <sup>1</sup>	A, B, C, D, E, N = Normal per MIL-DTL-38999					
HDMI Orientation	H = Horizontal V = Vertical					

Material and Finish		
NF		Cadmium, Olive Drab Over Electroless Nickel (500 Hour Salt Spray)
ME	Aluminum	Electroless Nickel (96 Hour Salt Spray)
ZR		Black Zinc-Nickel (Tri-Valent CR)
XM	Composite	Electroless Nickel
Z1	Stainless Steel	Passivate
AB	Marine Bronze	None (Clean Only)

Additional material / finish options available consult factory

Connector Style	
00	Wall mount receptacle with slotted holes
D0	Wall mount receptacle with round holes
CM	Wall mount receptacle with metric clinch nuts
07	Rear panel mount, jam nut receptacle

### DO - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES



### NOTES

- HDMI Performance: Design meets HDMI 2.0 protocol requirement including 18Gbps of bandwidth and supports 4K resolution and 60Hz.
- Receptacle connector designed to meet IP67 unmated condition.
- HDMI Specifications
  - Performance: See Note 1
  - DWV: 300VAC
  - IR: 100 Mega Ohms MIN
  - Operating Temperature: -20°C to +85°C
- Material and Finish
  - Shell, jam nut: see material finish table
  - Seals: silicone based elastomer
- Hardware: stainless steel/passivated
- HDMI:
  - Housing: thermoplastic/NA
  - Shell: copper alloy nickel plated
  - Terminal: copper alloy/gold plated



# HDMI 2.0 CONNECTORS

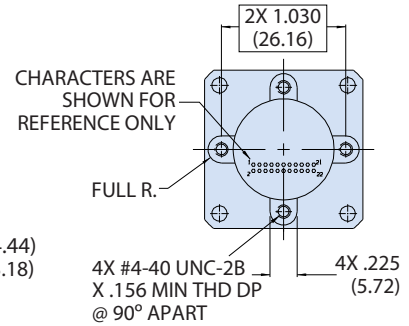
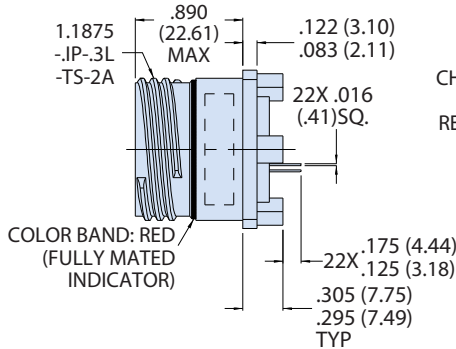
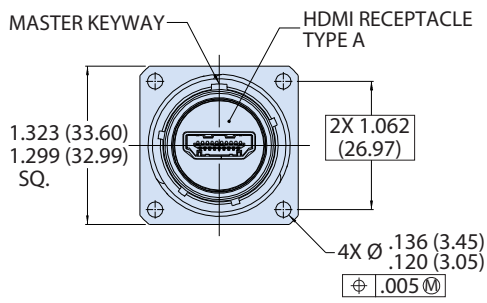
## MIL-DTL-38999 Series III Type Connectors



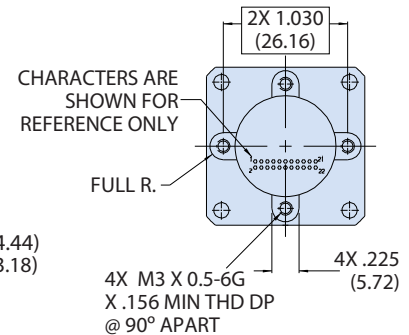
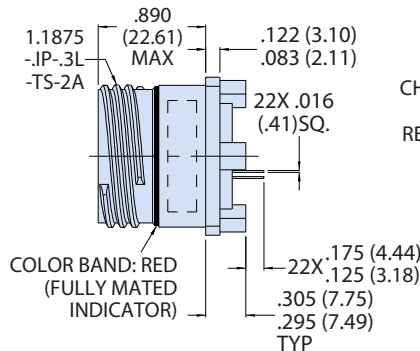
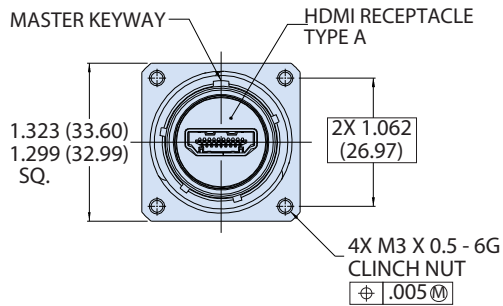
### 233-367 HDMI to PC Tail connector receptacle with standoffs

N

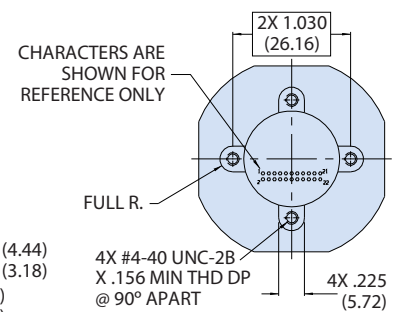
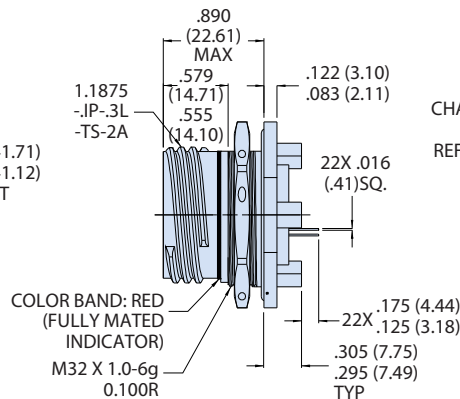
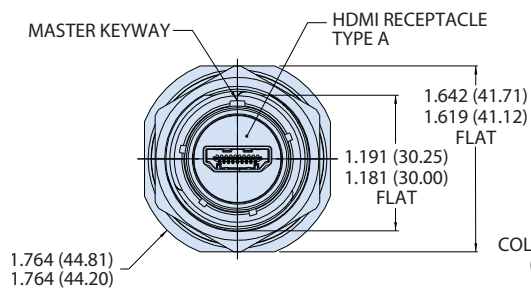
#### DO - WALL MOUNT RECEPTACLE WITH ROUND HOLES



#### CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



#### 07 - JAM NUT MOUNT RECEPTACLE



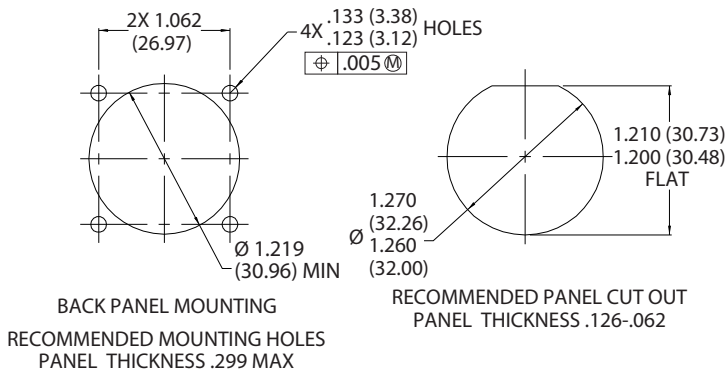


# HDMI 2.0 CONNECTORS

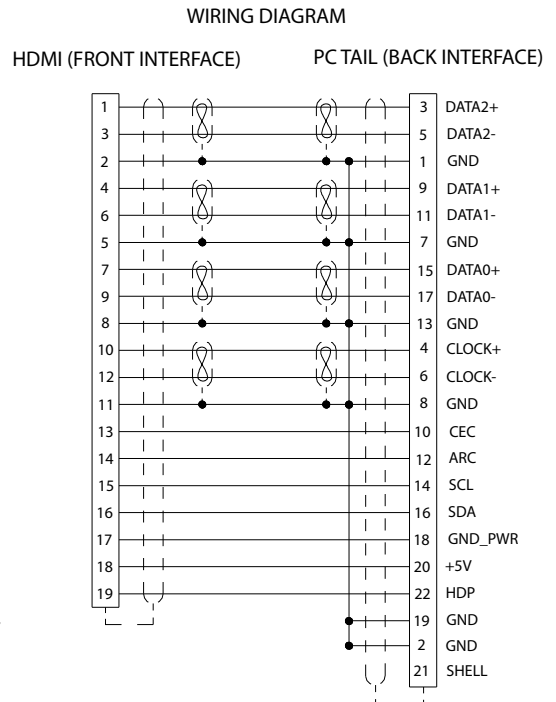
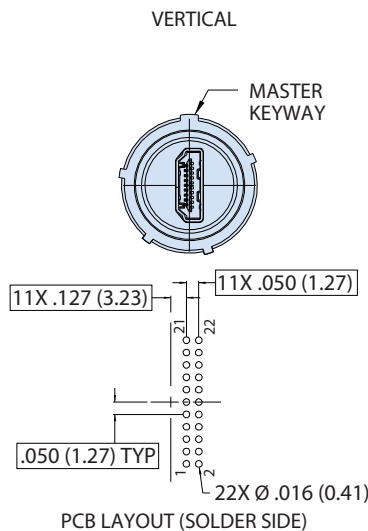
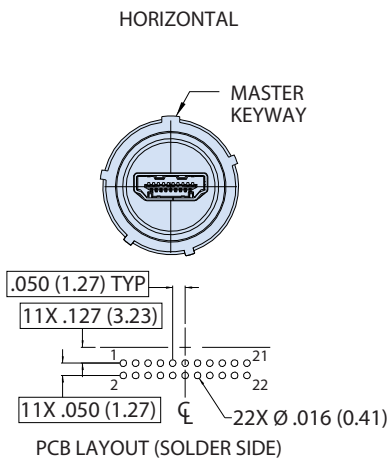
## MIL-DTL-38999 Series III Type Connectors



### 233-367 HDMI to PC Tail connector receptacle with standoffs



#### HDMI ORIENTATION OPTIONS (PARTIAL VIEWS SHOWN)





DISPLAYPORT

# MIL-DTL-38999 Series III Type Connectors



## 233-376 Connector receptacle with shielded DisplayPort coupler

N

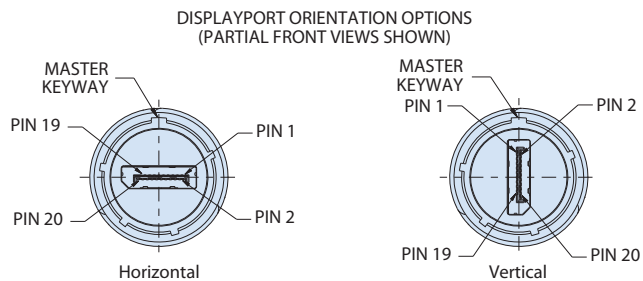
Part Number Development						
<b>Sample Part Number</b>	<b>233-376</b>	<b>NF</b>	<b>00</b>	<b>-17</b>	<b>N</b>	<b>H</b>
<b>Basic Number</b>	<b>233-376</b>					
<b>Finish</b>	See Material and Finish table					
<b>Connector Style</b>	See Connector Style table					
<b>Shell Size</b>	<b>17</b>					
<b>Alternate Key Position</b>	<b>A, B, C, D, E, N</b> = Normal per MIL-DTL-38999					
<b>DisplayPort Orientation</b>	<b>H</b> = Horizontal <b>V</b> = Vertical					

Material and Finish		
<b>NF</b>	Aluminum	Cadmium, Olive Drab Over Electroless Nickel (500 Hour Salt Spray)
<b>ME</b>		Electroless Nickel (96 Hour Salt Spray)
<b>ZR</b>		Black Zinc-Nickel (Tri-Valent CR)
<b>XM</b>	Composite	Electroless Nickel
<b>Z1</b>	Stainless Steel	Passivate
<b>AB</b>	Marine Bronze	None (Clean Only)

Additional material / finish options available consult factory

Wiring Diagram					
Signal Name	P1	P2	Signal Name	P1	P2
ML_LANE 0(p)	1	1	ML_LANE 3(n)	12	12
ML_LANE 0(n)	3	3	GND	11	11
GND	2	2	CONFIG1	13	13
ML_LANE 1(p)	4	4	CONFIG2	14	14
ML_LANE 1(n)	6	6	AUX CH(p)	15	15
GND	5	5	AUX CH(n)	17	17
ML_LANE 2(p)	7	7	GND	16	16
ML_LANE 2(n)	9	9	Hot Plug Detect	18	18
GND	8	8	DP_PWR Return	19	19
ML_LANE 3(p)	10	10	DP_PWR	20	20

Connector Style	
<b>00</b>	Wall mount receptacle with slotted holes
<b>01</b>	Wall mount receptacle with round holes
<b>02</b>	Wall mount receptacle with metric clinch nuts
<b>03</b>	Wall mount receptacle with standard clinch nuts
<b>04</b>	Rear panel mount, jam nut receptacle
<b>05</b>	Rear panel mount, inline receptacle



### NOTES

- Interpret drawing per ASME Y14.5 - 2009.
- Modified major diameter 31.80 - 31.95 (1.252 - 1.257).
- Material/finishes:
  - Shell, jam nut: see Material/Finish table
  - (Composite coupling nut no plating required).
  - Seals: silicone based elastomer
  - Hardware: stainless steel/passivated
- Displayport
  - Housing: thermoplastic/N.A.
  - Shell: copper alloy/nickel plated
  - Terminal: copper alloy/ gold plated
- Displayport specifications:
  - Performance: see note 8.
  - D.W.V.: 500 VAC (unmated)
  - I.R.: 100 Mega ohms min.
  - Operating temperature range: -20°C to +85°C
- Front panel mount only.
- Receptacle connector designed to meet IP67 unmated condition.
- Performance: design meets displayport 1.4 Benchmark data transfer rate requirements.



DISPLAYPORT

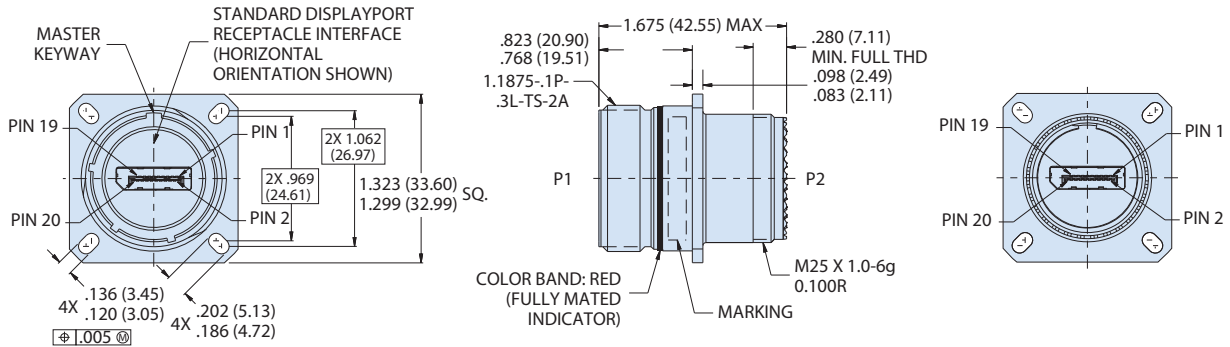
# MIL-DTL-38999 Series III Type Connectors



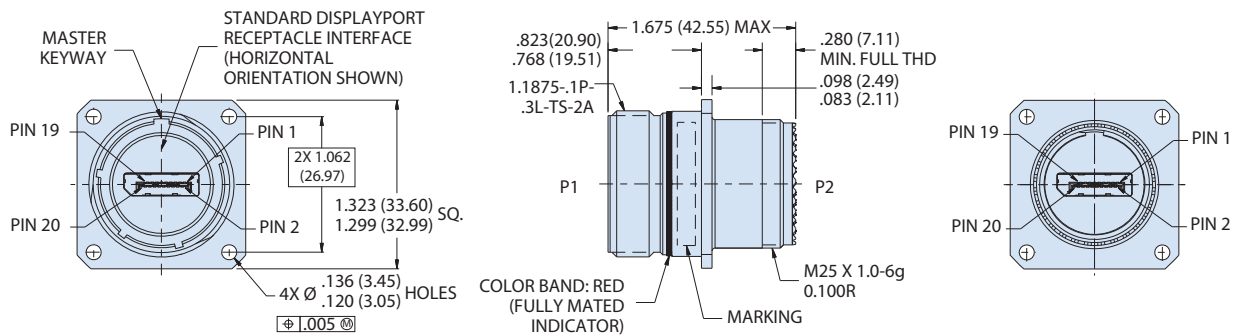
## 233-376 Connector receptacle with shielded DisplayPort coupler

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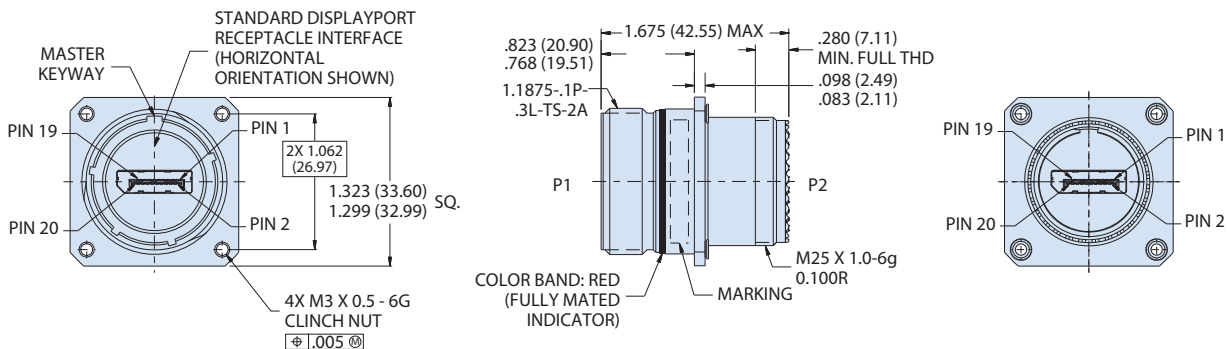
### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES



### DO - WALL MOUNT RECEPTACLE WITH ROUND HOLES



### CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



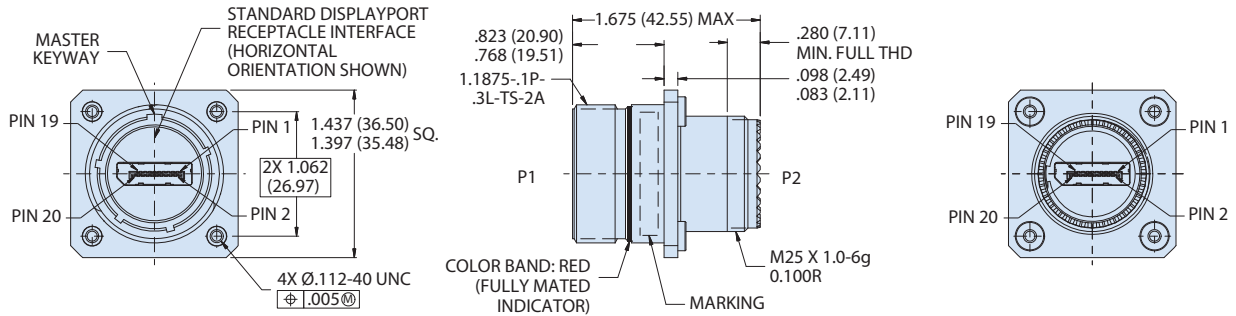


# DISPLAYPORT MIL-DTL-38999 Series III Type Connectors

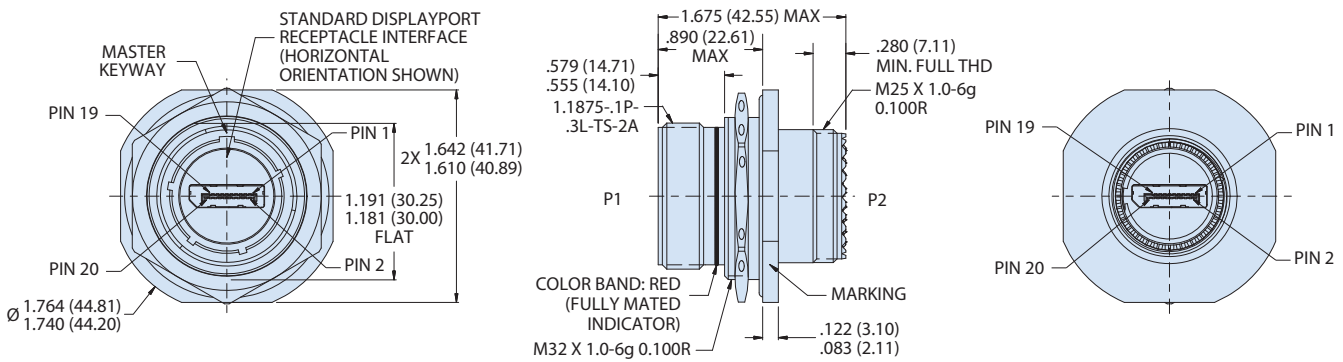


## 233-376 Connector receptacle with shielded DisplayPort coupler

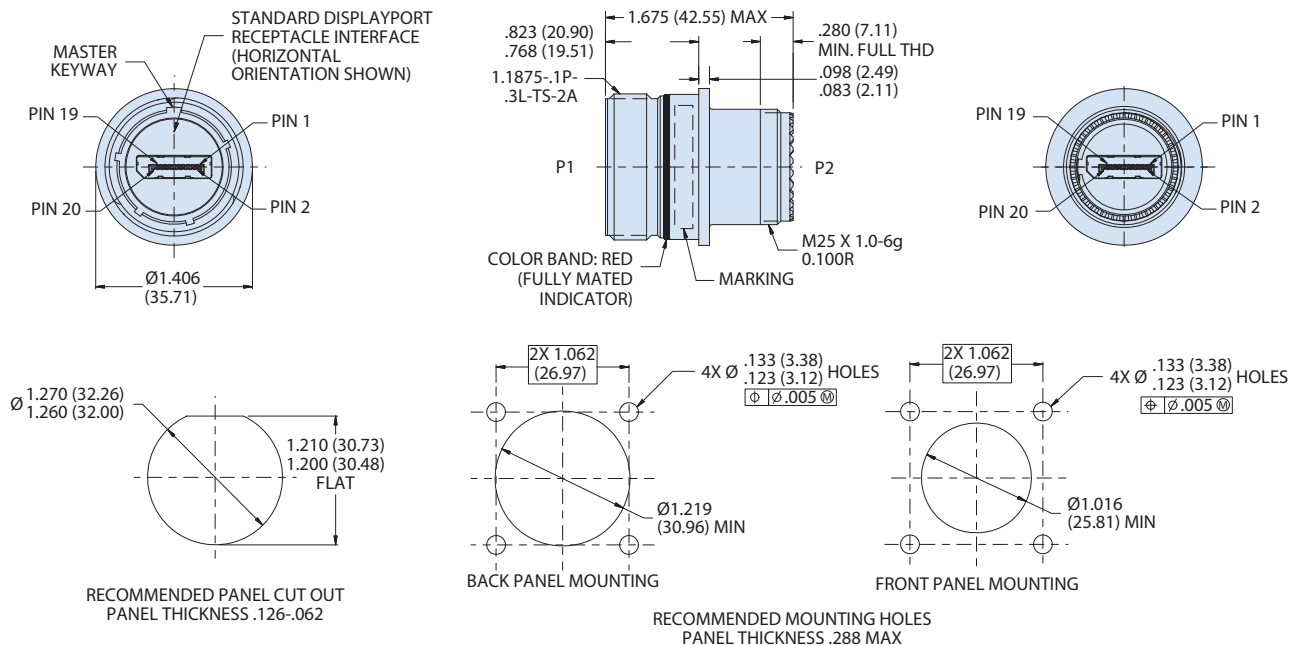
### CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS



### 07 - JAM NUT MOUNT RECEPTACLE



### 05 - INLINE RECEPTACLE





DISPLAYPORT

# MIL-DTL-38999 Series III Type Connectors



## 233-379 Connector receptacle with DisplayPort to PC tail termination



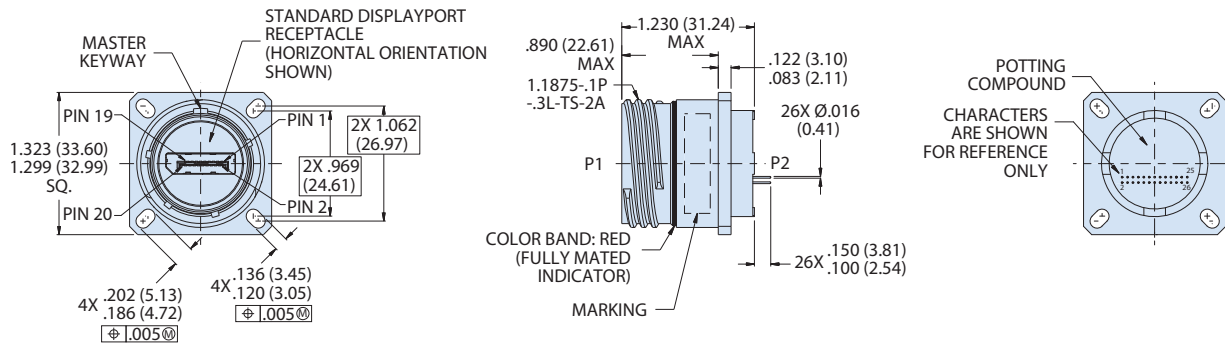
Part Number Development						
Sample Part Number	233-379	NF	00	-17	N	H
Basic Number	233-379					
Finish	See Material and Finish table					
Connector Style	See Connector Style table					
Shell Size	17					
Alternate Key Position	A, B, C, D, E, N = Normal per MIL-DTL-38999					
DisplayPort Orientation	H = Horizontal V = Vertical					

Material and Finish		
NF	Aluminum	Cadmium, Olive Drab Over Electroless Nickel (500 Hour Salt Spray)
ME		Electroless Nickel (96 Hour Salt Spray)
ZR		Black Zinc-Nickel (Tri-Valent CR)
XM	Composite	Electroless Nickel
Z1	Stainless Steel	Passivate
AB	Marine Bronze	None (Clean Only)

Connector Style	
00	Wall mount receptacle with slotted holes
D0	Wall mount receptacle with round holes
CM	Wall mount receptacle with metric clinch nuts
CS	Wall mount receptacle with standard clinch nuts
07	Rear panel mount, jam nut receptacle

Additional material / finish options available consult factory

### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES



### NOTES

- Interpret drawing per ASME Y14.5 - 2009.
- Modified major diameter 31.80 - 31.95 (1.252 - 1.257).
- Material/finishes:
  - Shell, jam nut: see Material/Finish table
  - (Composite coupling nut no plating required).
  - Seals: silicone based elastomer
  - Hardware: stainless steel/passivated
- Displayport
  - Housing: thermoplastic/N.A.
  - Shell: copper alloy/nickel plated
  - Terminal: copper alloy/ gold plated
- Displayport specifications:
  - Performance: see note 8.
  - D.W.V.: 500 VAC (unmated)
  - I.R.: 100 Mega ohms min.
  - Operating temperature range: -20°C to +85°C
- Front panel mount only.
- Receptacle connector designed to meet IP68 unmated condition.
- Performance: design meets displayport 1.4 benchmark data transfer rate requirements.



DISPLAYPORT

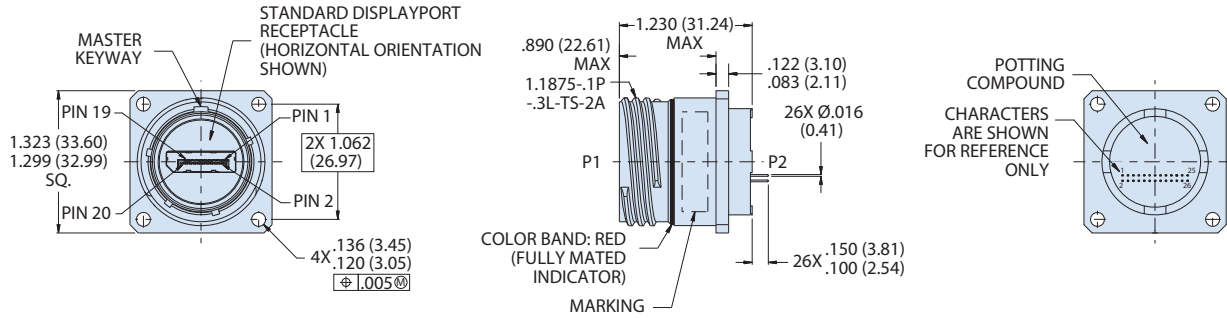
# MIL-DTL-38999 Series III Type Connectors



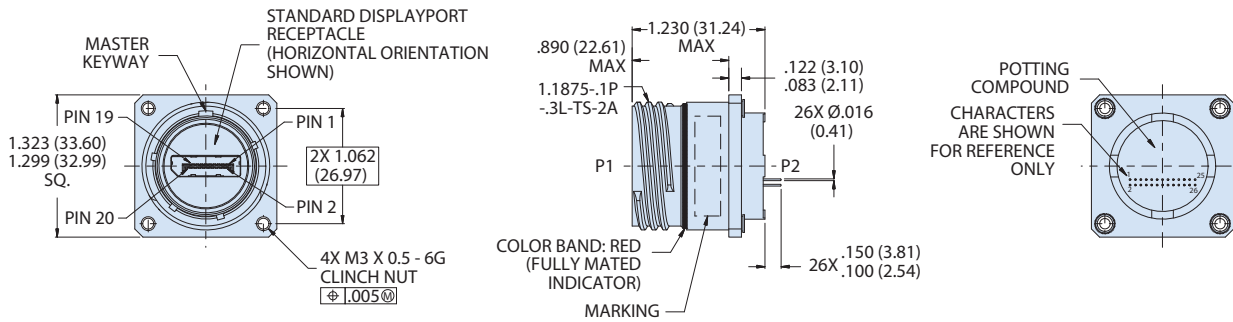
## 233-379 Connector receptacle with DisplayPort to PC tail termination

N

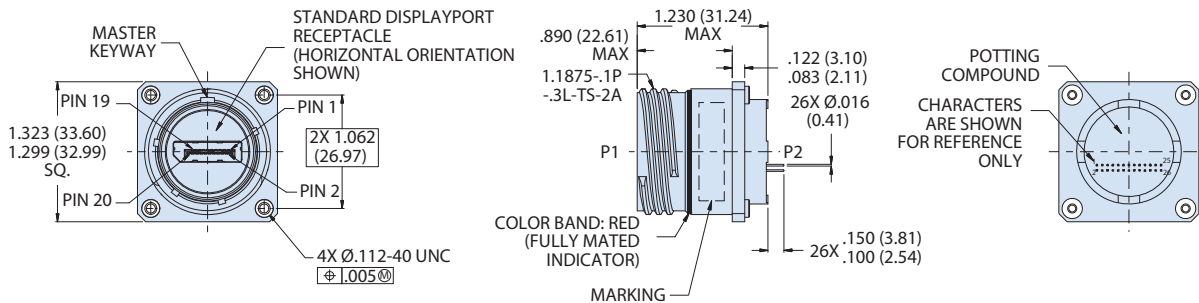
### DO - WALL MOUNT RECEPTACLE WITH ROUND HOLES



### CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



### CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS







DISPLAYPORT

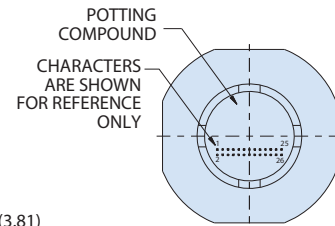
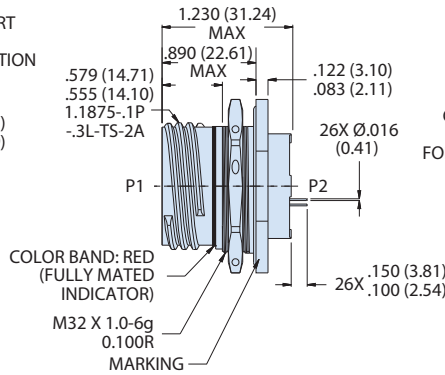
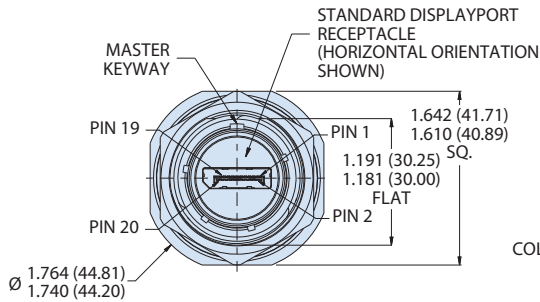
# MIL-DTL-38999 Series III Type Connectors



## 233-379 Connector receptacle with DisplayPort to PC tail termination

N

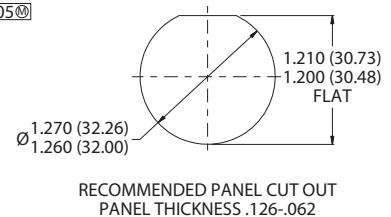
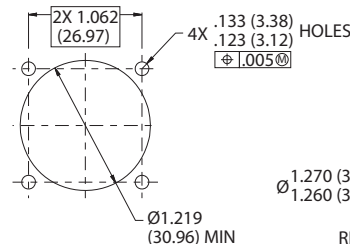
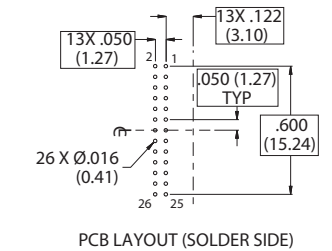
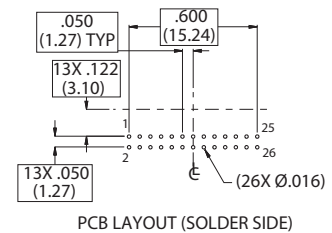
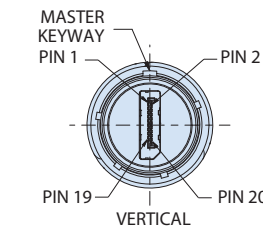
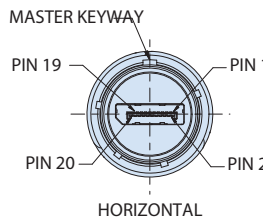
### 07 - JAM NUT MOUNT RECEPTACLE



**WIRING DIAGRAM**

SIGNAL NAME	P1 (DP CONNECTOR SIDE)	P2 (PCB SIDE)
ML_LANE 0(p)	1	3 ML_LANE 0(p)
ML_LANE 0(n)	3	7 ML_LANE 0(n)
GND	2	5 GND
ML_LANE 1(p)	4	9 ML_LANE 1(p)
ML_LANE 1(n)	6	13 ML_LANE 1(n)
GND	5	11 GND
ML_LANE 2(p)	7	15 ML_LANE 2(p)
ML_LANE 2(n)	9	19 ML_LANE 2(n)
GND	8	17 GND
ML_LANE 3(p)	10	21 ML_LANE 3(p)
ML_LANE 3(n)	12	25 ML_LANE 3(n)
GND	11	23 GND
CONFIG1	13	10 CONFIG1
CONFIG2	14	8 CONFIG2
AUX CH(p)	15	20 AUX CH(p)
AUX CH(n)	17	22 AUX CH(n)
GND	16	18 GND
HOT PLUG DETECT	18	14 HOT PLUG DETECT
DP_PWR RETURN	19	24 DP_PWR RETURN
DP_PWR	20	26 DP_PWR
		12 GND
		6 GND
		1 NC
		2 NC
		16 NC
		4 (TO SHIELD)
SHIELD	SHIELD	

### DISPLAYPORT ORIENTATION OPTIONS (PARTIAL FRONT VIEWS SHOWN)



RECOMMENDED MOUNTING HOLES  
PANEL THICKNESS .288 MAX



DISPLAYPORT

# MIL-DTL-38999 Series III Type Connectors



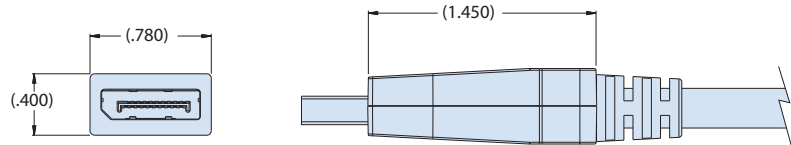
## 233-389 DisplayPort plug with strain relief cable sealing backshell

N

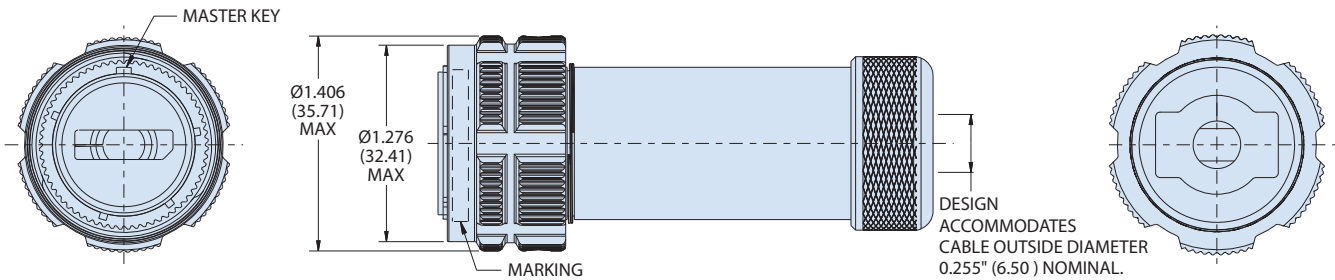
Part Number Development							
Sample Part Number	233-389	NF	G6	A	17	N	H
Basic Number	233-389						
Material/Finish	See Material and Finish table						
Connector Style	G6 = Plug						
Overmold Boot Style	A						
Shell Size	17						
Alternate Position	A, B, C, D, E, N = Normal per MIL-DTL-38999						
DisplayPort Orientation	H = Horizontal V = Vertical						

Material and Finish		
NF		Cadmium, Olive Drab Over Electroless Nickel (500 Hour Salt Spray)
ME	Aluminum	Electroless Nickel (96 Hour Salt Spray)
ZR		Black Zinc-Nickel (Tri-Valent CR)
ZI	Stainless Steel	Passivate
AB	Marine Bronze	None (Clean Only)

Additional material / finish options available consult factory



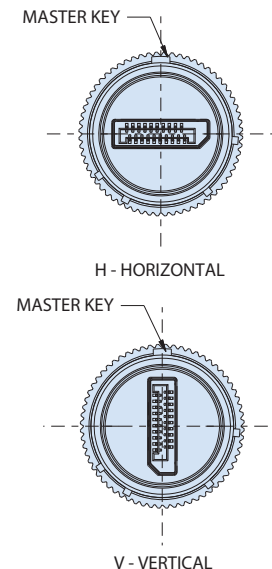
RECOMMENDED DISPLAYPORT PLUG OVERMOLD - STYLE A



### NOTES

- Interpret drawing per ASME Y14.5 - 2009.
- Modified major diameter 31.80 - 31.95 (1.252 - 1.257).
- Material/finishes:
  - Barrel, coupling nut: see Material/Finish table (composite coupling nut no plating required).
  - Insulators: high grade rigid dielectric/N.A.
  - Seals: silicone based elastomer
  - USB adapter housing: UL94V-0 compliant ABS or PPS
  - Hardware: stainless steel/passivated
- Displayport specifications:
  - Performance: DP 1.4
  - D.W.V.: 500 VAC (unmated)
  - I.R.: 100 Mega ohms min.
  - Operating temperature range: -20°C to +85°C
- Front panel mount only.
- Plug connector designed to meet IP68 unmated condition.
- Design accommodates cable outside diameter 0.255" (6.50 mm) nominal.

### DISPLAYPORT ORIENTATION OPTIONS



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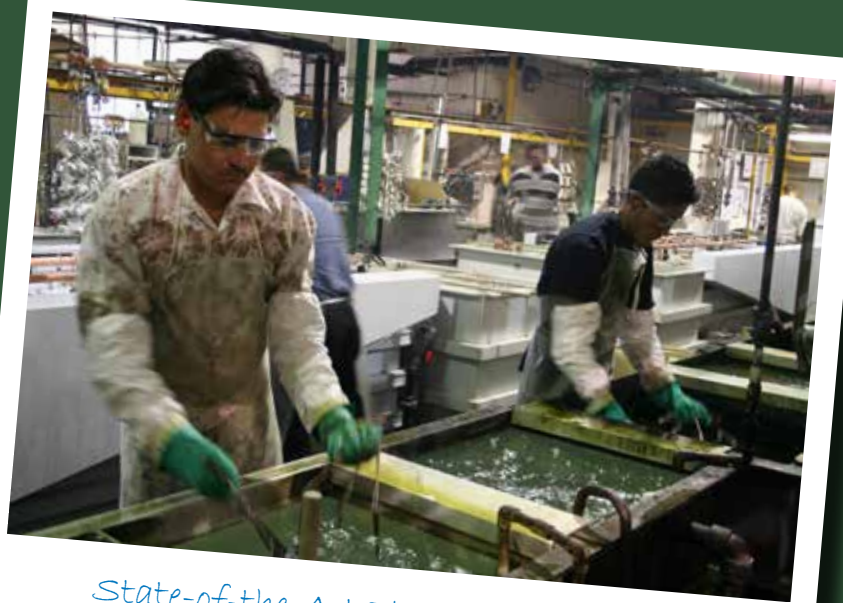
Huge "Same-Day" Inventory!



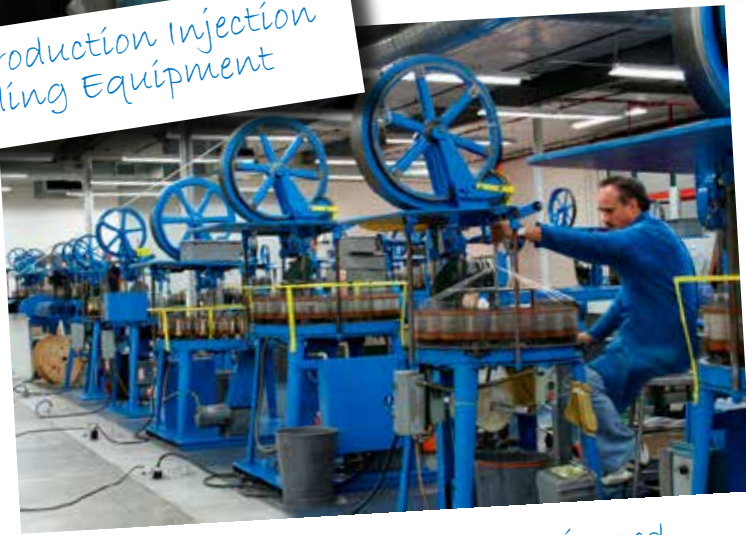
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