

Glennair®



Photo: iZBAN Train, Central Data Bank at English Wikipedia

# High-Speed "DataLink" Transmission Connectors

*USB, RJ45 and Quadrax Interconnects in Sealed,  
Ruggedized M5015 and M26482 Type Packaging*

United States ■ United Kingdom ■ Germany ■ France ■ Nordic ■ Italy ■ Spain ■ Japan

HIGH SPEED

# JUNCTION BOXES

**Machined Aluminum Junction Boxes with Ruggedized USB, RJ45 and Quadrax Interconnects for the Most Demanding Environments**



From littoral ships to high speed rail cars, Glenair junction boxes offer the utmost in electromagnetic, environmental and shock protection for delicate high speed data transmission equipment. Need to integrate two different connector standards? Want to combine several inputs into one output? No problem! Glenair junction boxes enable users to customize I/O systems to accommodate military standard and legacy connectors, together with commercial high-speed plugs in virtually any combination and configuration.



# High Speed Data Transmission Table of Contents

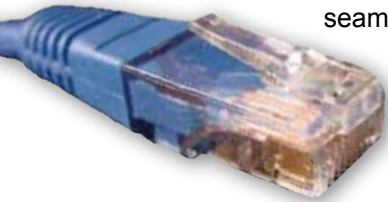


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## RJ45

Adapted from the “registered jack” telephone plug, the RJ45 is a modular connector used in twisted pair Ethernet applications. The RJ45 utilizes 8 contacts that connect with four sets of twisted pair wires. Plugs are commonly terminated to Category 5 cable, which relies on the innate noise rejecting properties of twisted pair wires to eliminate cross talk—although shielded iterations of Cat5 wire are becoming increasingly available. The ubiquity of RJ45 connectors in the personal computer and internet industries make it an ideal choice for users seeking a reliable, seamless integration into an existing interconnection network.



## Universal Serial Bus

Universal Serial Bus—or USB—is a standardized connection device used to link computers and peripheral devices. Introduced in 1996, the USB 1.0 connector eliminates the need for proprietary—and often bulky—serial ports used to connect printers, keyboards and other electronic controllers. The small universal connection is capable of carrying signal and power via four leads in a “plug and play” format, thus reducing the need for redundant cables to a given device.

Shortly after its inception, the second generation “USB 2.0” connector was released, boasting a 4000% increase in transfer speed and an expanded list of compatible devices. Additionally, a host of new connector types—including USB-B, mini and micro—were introduced to accommodate smaller devices, such as phones, PDA’s and cameras. The newest-generation “USB 3.0” connector will add two additional pairs of shielded twisted pair wire, enabling full duplex operation and a transfer rate of 4.8 Gbits/second.



## USB-A

USB-A is the most commonly specified style within the connector family—often found on computer keyboards, mice, printers and flash-memory cards. The USB-A connector has a broad, flat rectangular shell that houses all four contacts on one side. USB-A plugs are typically inserted into “downstream port” receptacles on the USB host or a hub.

## USB-B

Like its type A brethren, the USB-B houses four leads capable of carrying both signal and power. Unlike the type A, however, the plug is square with chamfered outer edges, and distributes the placement of the contacts on opposing sides of the plug, with two contacts on the top and two on the bottom.

## Quadrax

Quadrax contacts, in a sense, act as a “connector within a connector”, housing four discrete size 24 pin or socket contacts within each keyed size 8 crimp body. Two sets of twisted pair wires terminate to the size 24 contacts, while the overall shield is grounded via the outer size 8 shell—affording 360° shielding. These high speed champs boast superb EMI compatibility for high data transfer applications where little or no power is needed. Additionally, standard crimping tools can be used to terminate all components, making shop or field assembly fast and simple.



## Integration

Glenair has bridged the gap between high performance data transmission systems and rugged field-ready circular connectors by integrating the two into a single, refined package. Users will no longer have to worry about damaging delicate high bandwidth connections in harsh conditions. The MIL-DTL-5015 or MIL-DTL-26482 type connector shells provide impact resistance, ingress protection and positive coupling—all in a wide array of finishes and shell styles.





## Special IFO Series Fiber Optic Solutions

Fiber optic connectors, termini and cables are ideally suited for high-reliability settings such as commercial, military, mass-transit and naval applications. Glenair is unique in the industry for our vertical ability to design, produce and deliver high-speed I/O interconnect cables and harnesses including fiber optic cabling for extreme environmental exposure, corrosion resistance, improved fiber tensile strength and resistance to micro-bending.

We are a recognized leader in the manufacture of high-reliability fiber optic connection systems for the most advanced and challenging systems, including every branch of the military as well as industrial markets in every configuration requirement.

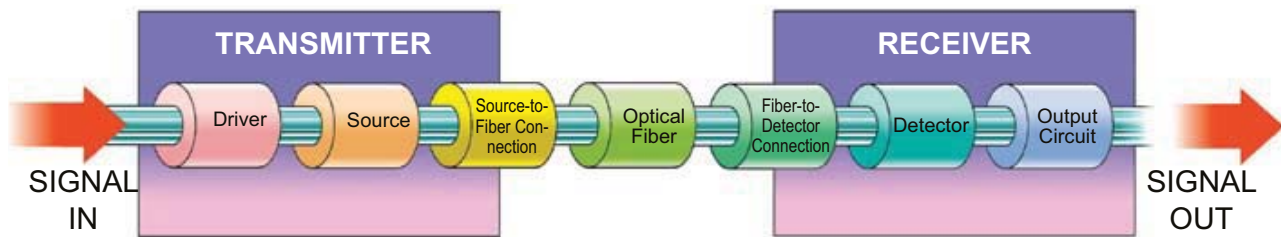


## High-Speed Series IFO Fiber Optic Configurations

Based on our proven harsh environment ITS Ruggedized Connectors Series, the IFO fiber optic version offers several configurations utilizing 2, 4, 6, or 12 fiber optic termini in a single connector.

Available termini can accommodate 9/125 (Single-Mode), 50/125 and 62/125 (Multi-Mode) optical fibers.

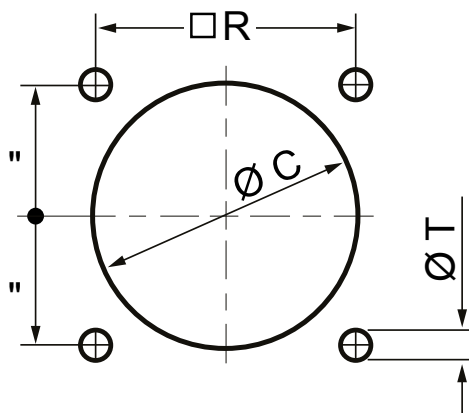
### Basic Fiber Optic Link



## EMI and Spark/Arc Immunity

Optical fiber is particularly useful in high reliability applications due to its electromagnetic immunity. Since fiber optic media uses light to transmit signals, it is not subject to electromagnetic interference, radio frequency interference or voltage surges, and so provides greater transmission reliability. The total electrical isolation of fiber also makes it a safer, spark-free media for use in hazardous environments, such as high speed rail signals, tactical field communications, and Naval applications.





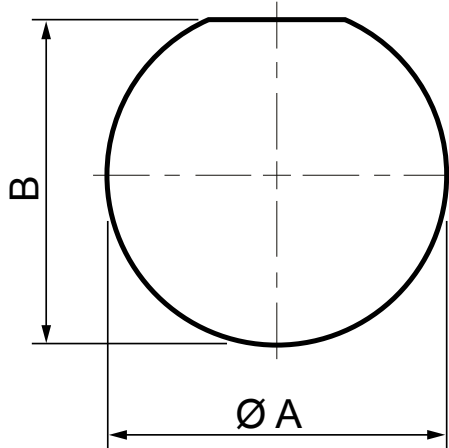
### Panel Cutout for 00 and 02 Front Panel Mounting Connectors

Shell Size	18 <i>USB-A, USB-B, QuadraX, IPT RJ45</i>	20 <i>ITS with 1 RJ45</i>	32 <i>ITS with 2 RJ45</i>
Ø C (mm)	26.5	30.0	48.5
R ± 0.1 (mm)	27	29.4	44.5
Ø T (mm)	3.4	3.4	4.5

### Panel Cutout for 03 and 030 Rear Panel Mounting Connectors

Shell Size	18 <i>USB-A, USB-B, QuadraX, IPT RJ45</i>	20 <i>ITS with 1 RJ45</i>	32 <i>ITS with 2 RJ45s</i>
Ø C (mm)	31.7	35.0	54.3
R ± 0.1 (mm)	27	29.4	44.5
Ø T (mm)	4.5	4.5	5.5

# High Speed Data Transmission Panel Cutout Dimensions



Panel Cutout for 07 and 070 Jam Nut Receptacle Connectors			
Shell Size	<b>18</b> <i>USB-A, USB-B, Quadax, IPT RJ45</i>	<b>20</b> <i>ITS with 1 RJ45</i>	<b>32</b> <i>ITS with 2 RJ45s</i>
<b>Ø A + 0.25 (mm)</b>	35.1	38.30	57.35
<b>B - 0.35 (mm)</b>	33.75	36.85	55.95



**Auto-MDIX**

A protocol which allows two Ethernet devices to negotiate their use of the Ethernet Transmit (Tx) and Receive (Rx) cable pairs. This allows two Ethernet devices with MOI or MDI-X connectors to connect without using a cross-over cable.

**Baud**

A unit of measurement that denotes the number of bits that can be transmitted per second. For example, if a modem is rated at 9600 baud it is capable of transmitting data at a rate of 9600 bits per second.

**Bandwidth**

The maximum capacity of a network channel. Usually expressed in bits per second (bps). Ethernet channels have bandwidths of 10,100, and 1000 Mbps (Gigabit).

**bps**

Bits Per Second is the unit used for measuring line speed, the number of information units transmitted per second.

**Broadcast**

A transmission initiated by one station and sent to all stations on the network.

**Byte**

The amount of memory needed to store one character such as a letter or a number. Equal to 8 bits of digital information. The standard measurement unit of a file size.

**Category 5**

A performance classification for twisted pair cables, connectors and systems. Specified to 100 MHz. Suitable for voice and data applications up to 155 Mbps.

**Category 5e**

Also called Enhanced Category 5. A performance classification for twisted pair cables, connectors and systems. Specified to 100 MHz. Suitable for voice and data applications up to 1000 Mbps.

**Category 6**

A performance classification for twisted pair cables, connectors and systems. Specified up to 250 MHz.

**CSMA/CD**

Carrier Sense Multiple Access/Collision Detect. The Medium Access Control (MAC) protocol used in Ethernet.

**Data Rate**

The speed of the data transmission, measured in bps (bits per second) or Mbps.

**Duplex (Full, Half)**

Full duplex is a communications method that allows for the simultaneous transmission and reception of data. In Half Duplex communication, transmissions and receptions can occur in either direction but not at the same time.

**Ethernet**

The most common network protocol in use. A protocol is a set of rules enabling data communications. Ethernet can operate over several different media including fiber optic, coaxial cable and twisted-pair cabled in Ethernet transmissions.

**IEEE 802.3**

IEEE Working Group for CSMA/CD, the protocol used in Ethernet transmissions.

**IGMP Snooping**

The ability of a switch to observe Internet Group Multicast Protocol (IGMP) traffic in order to learn IP Multicast group membership. The purpose is to restrict multicast transmissions to only those ports which have requested them.

## LAN

Local Area Network. A network of directly-connected machines (located in close proximity), providing high speed communication over physical media such as fiber optics or twisted pair wiring.

## MAC Address

A unique address assigned to a station interface, identifying that station on the network. With Ethernet, this is the unique 48-bit station address. Same as the physical address.

## Megabit (Mb)

Megabit. One million bits of information, usually used to express a data transfer rate ; 1 Megabit/second = 1Mbps.

## Megabyte (MB)

MegaByte. A unit of data storage size which represents one million characters of information.

## Multicast

A transmission initiated by one station to many stations of the network.

## Port Mirroring

Port mirroring allows a switch port to monitor packets from any or all of its ports so that traffic can be analyzed.

## Quality of Service (QoS)

Some switches support OoS (per 802.1 p and 802.10 standards) whereby messages can be assigned levels of priority. OoS is important where time-critical applications can be impaired by data delays.

## RJ45

8-position modular jacks used on twisted pair links for Ethernet cabling.

## RJ-Field

A wide range of connectors which allow to reinforce and seal standard RJ45 cable. See [www.rjfield.com](http://www.rjfield.com)

## SNMP

Simple Network Management Protocol. This is THE standard used for switch management programs.

## Spanning Tree Protocol (STP)

A link management protocol providing path redundancy and preventing network loops by defining a tree to span all switches in a network. It forces redundant data paths into a standby (blocked) state. If a path malfunction occurs, the topology is reconfigured and the link reestablished by activating the standby path.

## TCPIP

Transmission Control Protocol/Internet Protocol. A set of protocols, resulting from ARPA efforts, used by the Internet to support services such as remote login (TELNET), file transfer (FTP) and mail (SMTP).

## TELNET

The Internet standard protocol for remote login (terminal connection) service. TELNET allows a user at one site to interact with a remote timesharing system at another site as if the user's terminal were connected directly to the remote computer.

## VLAN

Virtual Local Area Network. A LAN that maps stations on a basis other than location such as by department, user type or application. Managing traffic, workstations, and bandwidth can be easier with a VLAN and improve network efficiency.

## 10BASE-T

10 Mbps Ethernet on twisted-pair (Category 3) cable.

## 100BASE-T

The twisted pair version of 100 Mbps Ethernet. Requires Category 5 cabling.

## 1000BASE-T

A recent LAN standard for implementing 1000 Mbps Ethernet on Category 5 cable. Also called Gigabit Ethernet.



# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) with Single RJ45 Connector

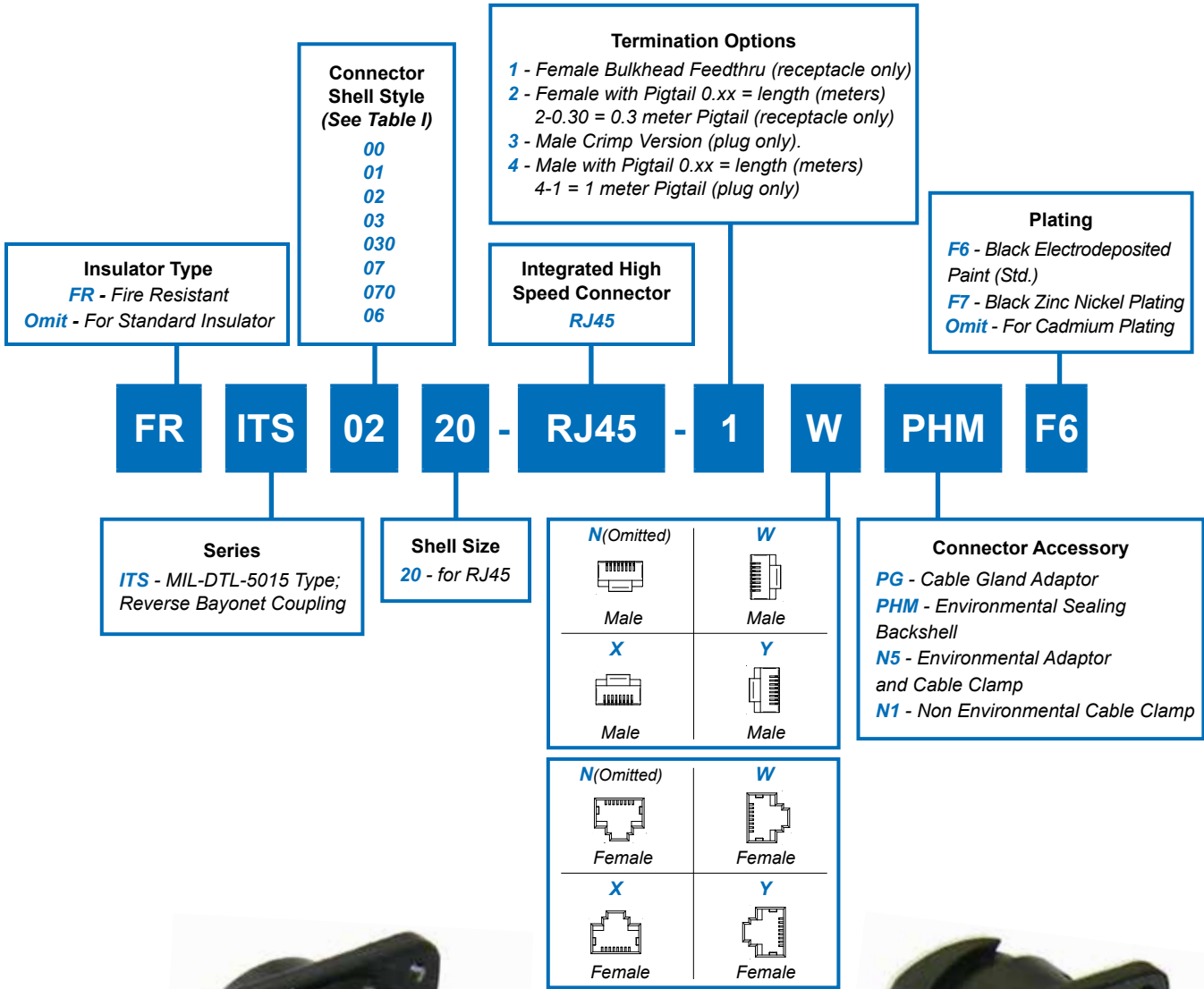


Figure 1  
Receptacle (Front)



Figure 2  
Receptacle (Rear)



# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) with Single RJ45 Connector



**TABLE I**

**Connector Shell  
Detailed Description**

- 00** - Front Panel Mount Square Flange Receptacle with Accessory Threads
- 01** - In Line Cylindrical Receptacle with Accessory Threads
- 02** - Front Panel Mount Square Flange Receptacle; No Accessory Threads
- 03** - Rear Panel Mount Square Flange Receptacle; No Accessory Threads
- 030** - Rear Panel Mount Square Flange Receptacle with Accessory Threads
- 07** - Rear Panel Mount Jam Nut Receptacle; No Accessory Threads
- 070** - Rear Panel Mount Jam Nut Receptacle with Accessory Threads
- 06** - Straight Cylindrical Plug Connector with Accessory Threads

Commercial-grade RJ45 connectors are intended for use in clean, dry environments. Exposure to dirt and moisture can lead to damage or failure. Glenair's sealed RJ45 connectors provide a high level of protection for the most hostile environments. Standard RJ45 jacks are housed in rugged, waterproof ITS Series bayonet connectors. Connectors feature resilient nitrile inserts and electrodeposited corrosion-resistant black paint or black zinc nickel plating. Cadmium plating is also available. A typical ITS RJ45 application consists of a through bulkhead female receptacle (*Figure 1 and 2*) and a male plug crimp RJ45 (*Figure 3*).

**TECHNICAL CHARACTERISTICS**

Category	Cat. 6 (Cat 5E available upon request)
Connection	10BaseT, 100BaseTx, 1000BaseT
Working Voltage	30/42 Volts AC RMS/VDC
Max Current Rating	1.5 Amps at 20° C
Max Contact Resistance	20 mΩ
Min. Insulation Resistance	1.000 mΩ at 500 Volts DC
Dielectric Withstanding Voltage	1000 Volts
Working Temperature	-40° to +68° C
Environmental Rating	IP67 (mated)
Wiring	According to EIA/TIA 568 A



**Figure 3**  
**Plug (Front)**



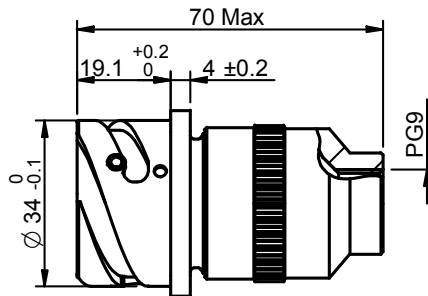
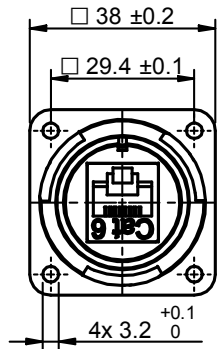
**Figure 4**  
**RJ45 Interconnection Sequence**



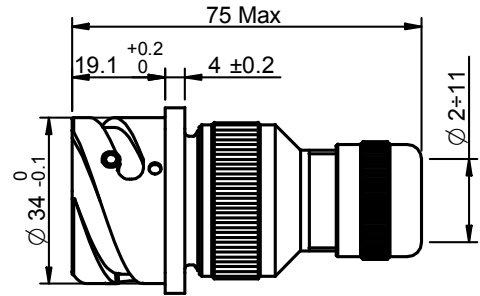
MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) with Single RJ45 Connector

CONFIGURATIONS AVAILABLE : ITS 00

Front View

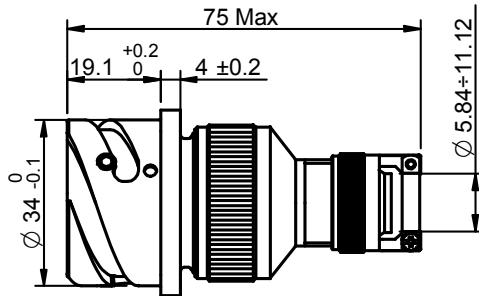
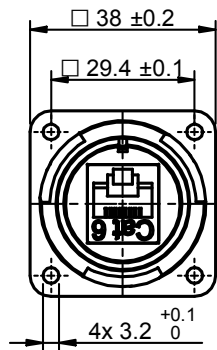


FRITS0020-RJ45-1PGF6

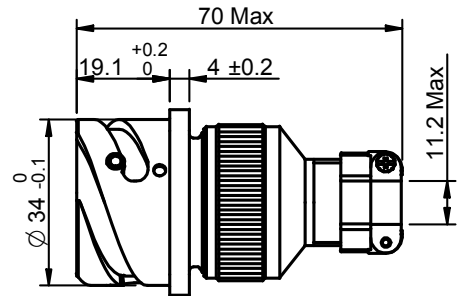


FRITS0020-RJ45-1PHMF6

Front View



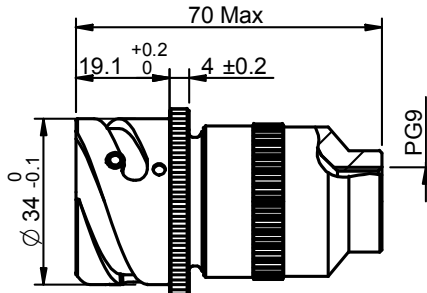
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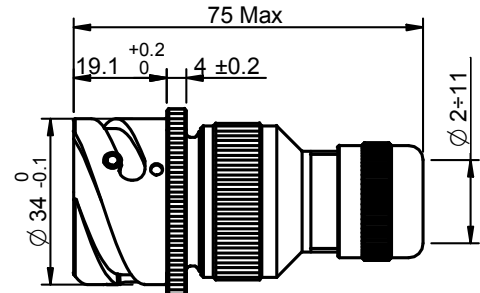
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CONFIGURATIONS AVAILABLE : ITS 01

Front View



FRITS0120-RJ45-1PGF6



FRITS0120-RJ45-1PHMF6

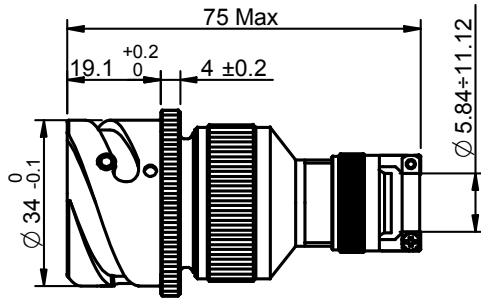
# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) with Single RJ45 Connector



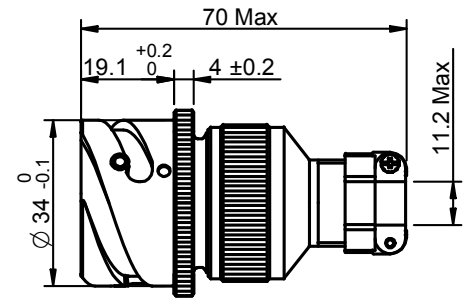
High-Speed  
Connectors

CONFIGURATIONS AVAILABLE : ITS 01

Front View



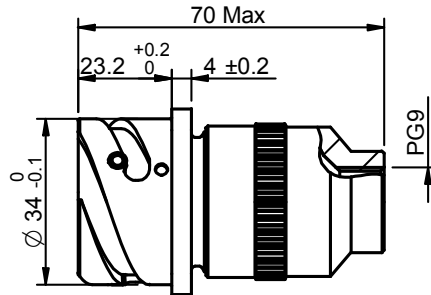
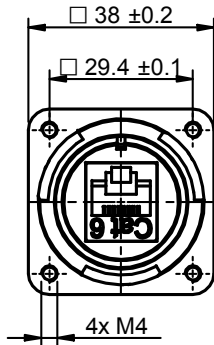
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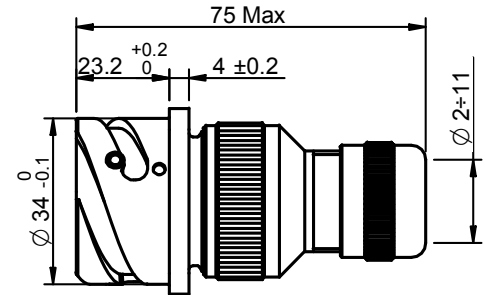
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CONFIGURATIONS AVAILABLE : ITS 030

Front View

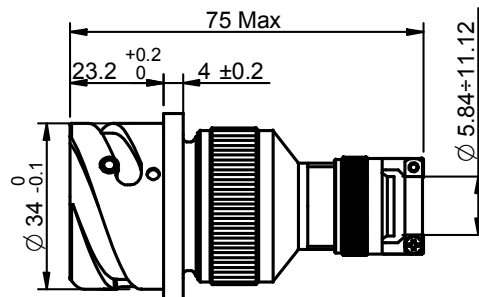
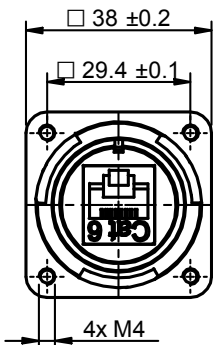


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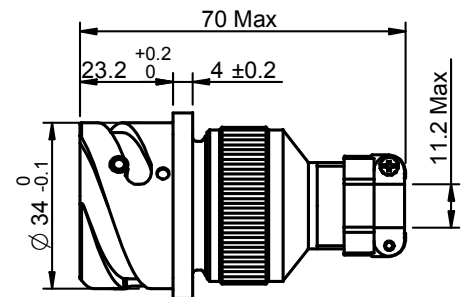


FRITS03020-RJ45-1PHMF6

Front View



FRITS03020-RJ45-1N5F6



FRITS03020-RJ45-1N1F6

Connectors

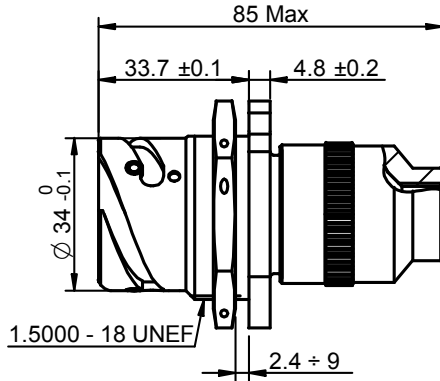
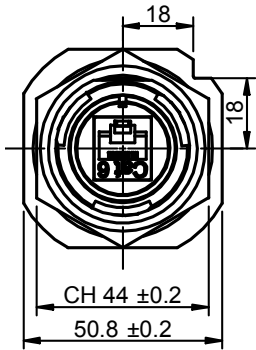




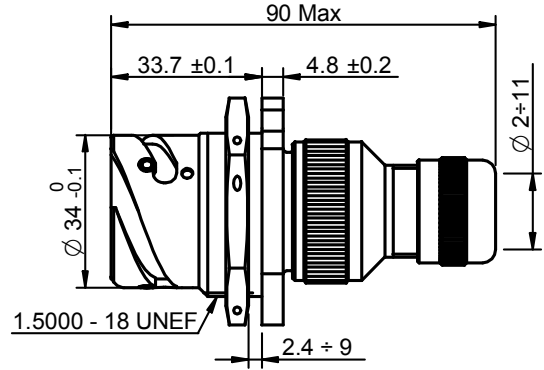
MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) with Single RJ45 Connector

CONFIGURATIONS AVAILABLE : ITS 070

Front View

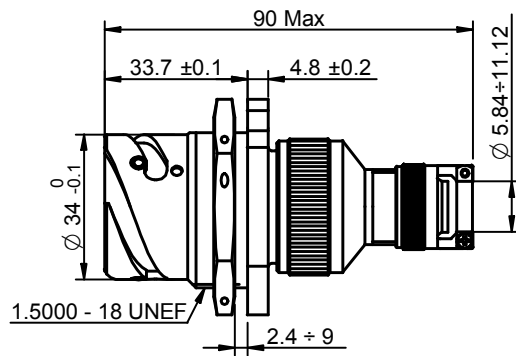
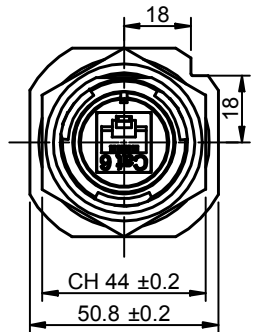


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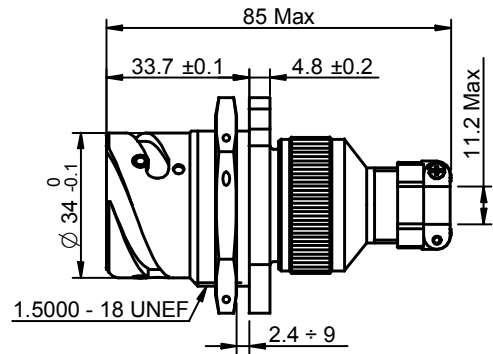


FRITS07020-RJ45-1PHMF6

Front View



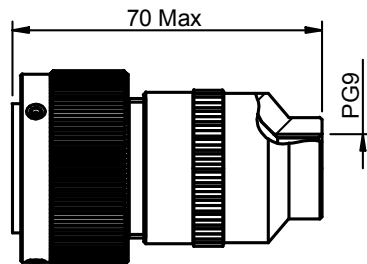
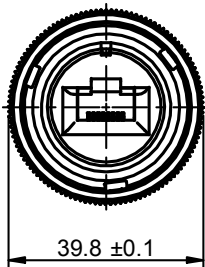
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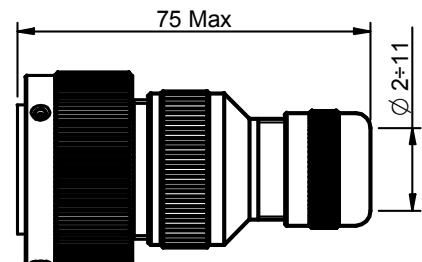
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CONFIGURATIONS AVAILABLE : ITS 06

Front View



FRITS0620-RJ45-3PGF6



FRITS0620-RJ45-3PHMF6

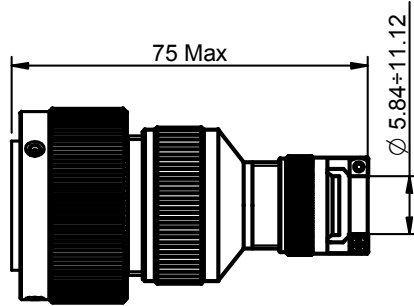
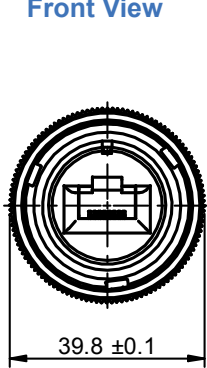
MIL-DTL-5015 Type Reverse Bayonet Coupling  
(Series ITS)  
with Single RJ45 Connector



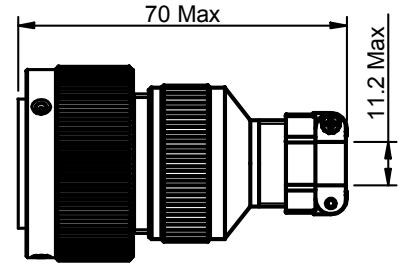
High-Speed  
Connectors

CONFIGURATIONS AVAILABLE : ITS 06

Front View



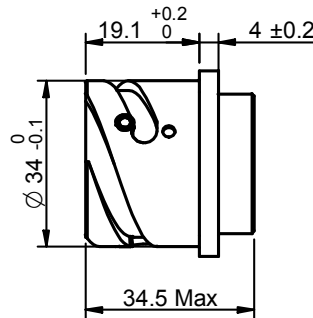
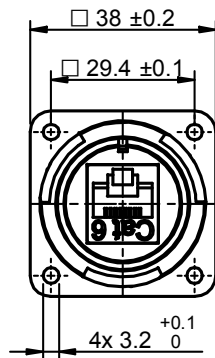
FRITS0620-RJ45-3N5F6



FRITS0620-RJ45-3N1F6

CONFIGURATIONS AVAILABLE : ITS 02

Front View



FRITS0220-RJ45-1F6

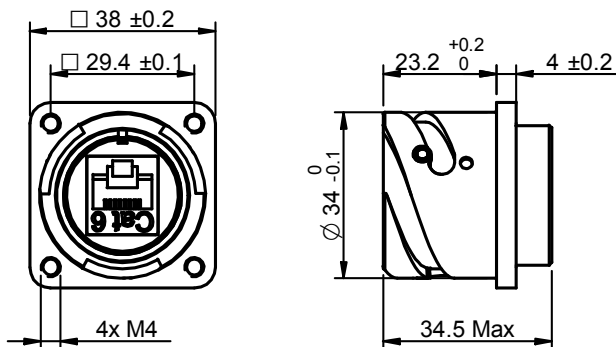
Connectors



MIL-DTL-5015 Type Reverse Bayonet Coupling  
(Series ITS)  
with Single RJ45 Connector

CONFIGURATIONS AVAILABLE : ITS 03

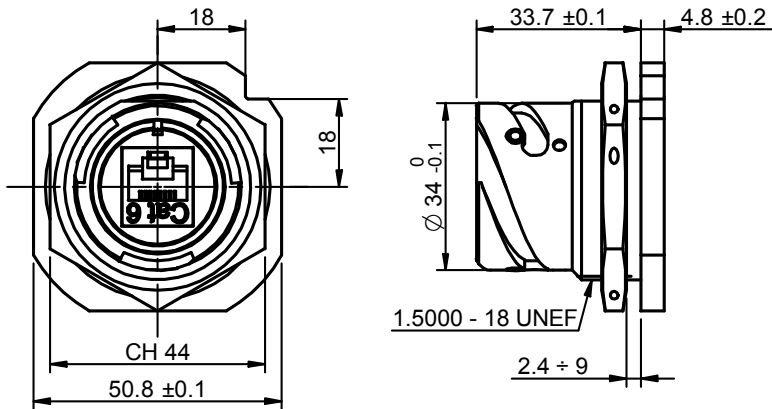
Front View



FRITS0320-RJ45-1F6

CONFIGURATIONS AVAILABLE : ITS 07

Front View



FRITS0720-RJ45-1F6

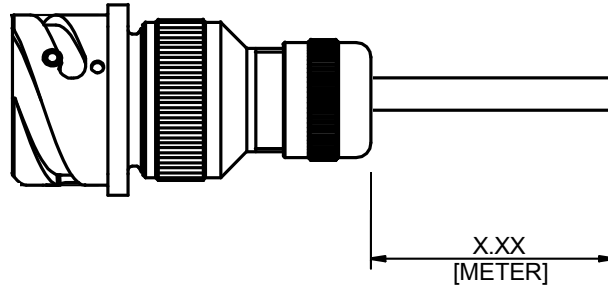


# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) with Single RJ45 Connector



## PIGTAIL GENERAL SKETCHES AND CONFIGURATIONS AVAILABLE

### Female with Pigtail for Configuration : 00 - 01 - 030 - 070



EXAMPLE : FRITS0020-RJ45-21.5PHMF6 → 1.5 mt Pigtail

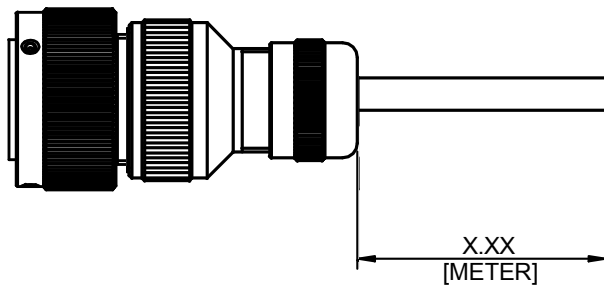
Female with Pigtail for Configuration : 00
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FRITS0020-RJ45-2X.xxN5F6
FRITS0020-RJ45-2X.xxPHMF6
FRITS0020-RJ45-2X.xxPGF6

Female with Pigtail for Configuration : 030
FRITS03020-RJ45-2X.xxN1F6
FRITS03020-RJ45-2-X.xxN5F6
FRITS03020-RJ45-2X.xxPHMF6
FRITS03020-RJ45-2X.xxPGF6

Female with Pigtail for Configuration : 01
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FRITS0120-RJ45-2X.xxN5F6
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FRITS0120-RJ45-2X.xxPGF6

Female with Pigtail for Configuration : 070
FRITS07020-RJ45-2X.xxN1F6
FRITS07020-RJ45-2X.xxN5F6
FRITS07020-RJ45-2X.xxPHMF6
FRITS07020-RJ45-2X.xxPGF6

### Male with Pigtail for Configuration : 06

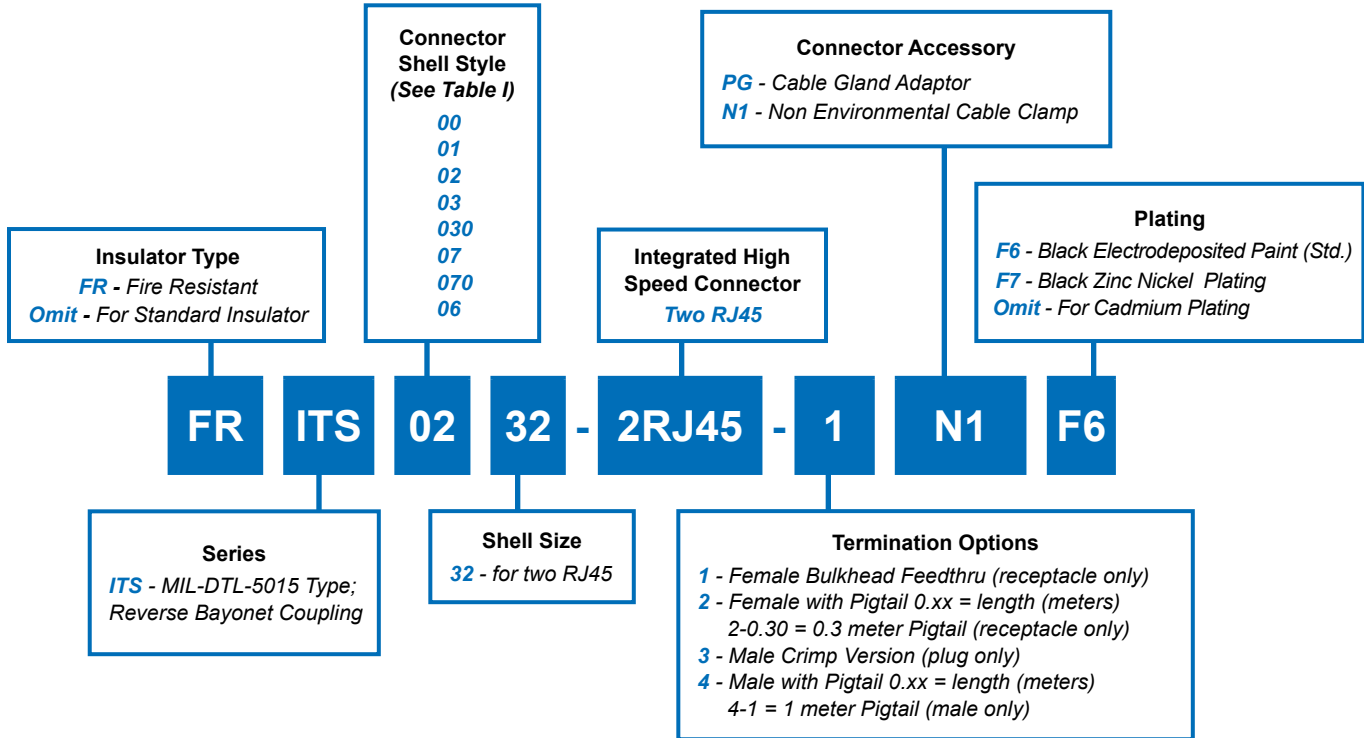


Female with Pigtail for Configuration : 06
FRITS0620-RJ45-4X.xxN1F6
FRITS0620-RJ45-4X.xxN5F6
FRITS0620-RJ45-4X.xxPHMF6
FRITS0620-RJ45-4X.xxPGF6

EXAMPLE : FRITS0620-RJ45-41.5PHMF6 → 1.5 mt Pigtail



# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) with Double RJ45 Connectors



**Figure 1**  
 Receptacle (Front)



**Figure 2**  
 Receptacle (Rear)

# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) with Double RJ45 Connectors



**TABLE I**

**Connector Shell  
Detailed Description**

- 00** - Front Panel Mount Square Flange Receptacle with Accessory Threads
- 01** - In Line Cylindrical Receptacle with Accessory Threads
- 02** - Front Panel Mount Square Flange Receptacle; No Accessory Threads
- 03** - Rear Panel Mount Square Flange Receptacle; No Accessory Threads
- 030** - Rear Panel Mount Square Flange Receptacle with Accessory Threads
- 07** - Rear Panel Mount Jam Nut Receptacle; No Accessory Threads
- 070** - Rear Panel Mount Jam Nut Receptacle with Accessory Threads
- 06** - Straight Cylindrical Plug Connector with Accessory Threads

Commercial-grade RJ45 connectors are intended for use in clean, dry environments. Exposure to dirt and moisture can lead to damage or failure. Glenair's sealed RJ45 connectors provide a high level of protection for the most hostile environments. Two standard RJ45 jacks are housed in rugged, waterproof ITS Series bayonet connectors. Dual connectors feature resilient nitrile inserts and electrodeposited corrosion-resistant black paint or black zinc nickel plating. Cadmium plating is also available. A typical ITS dual RJ45 application consists of a through bulkhead female receptacle (Figure 1 and 2) and a male plug crimp RJ45 (Figure 3).

**TECHNICAL CHARACTERISTICS**

Category	Cat. 6 (Cat 5E available upon request)
Connection	10BaseT, 100BaseTx, 1000BaseT
Working Voltage	30/42 Volts AC RMS/VDC
Max Current Rating	1.5 Amps at 20° C
Max Contact Resistance	20 mΩ
Min. Insulation Resistance	1.000 mΩ at 500 Volts DC
Dielectric Withstanding Voltage	1000 Volts
Working Temperature	-40° to +68° C
Environmental Rating	IP67 (mated)
Wiring	According to EIA/TIA 568 A



**Figure 3  
Plug (Front)**



**Figure 4  
RJ45 Interconnection Sequence**

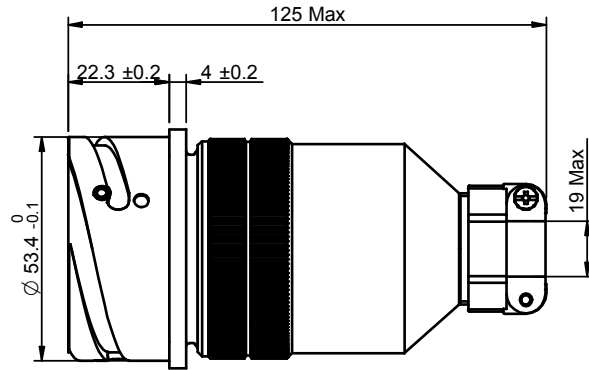
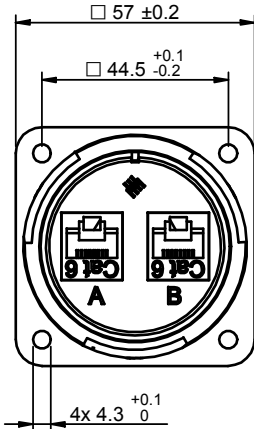


# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) with Double RJ45 Connectors

CONFIGURATIONS AVAILABLE : ITS 00 - DOUBLE RJ45

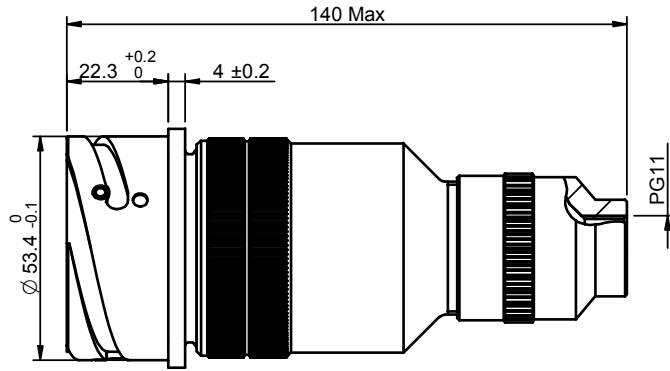
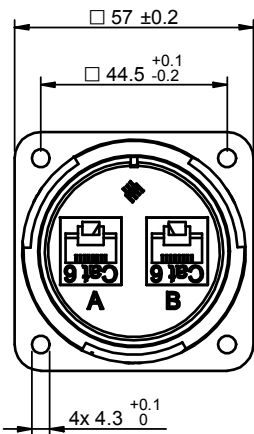
Suitable for n.2 RJ45 cables  $\varnothing$  5,5 / min.

Front View



FRITS0032-2RJ45-1N1F6

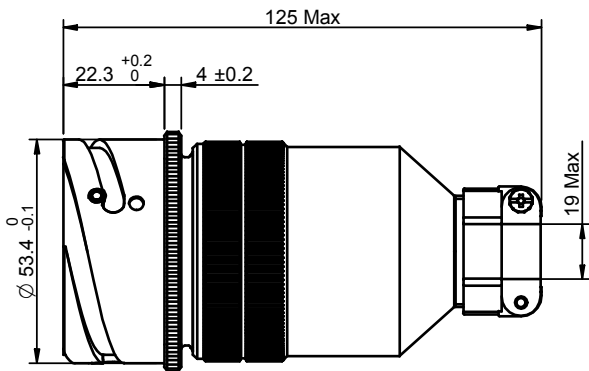
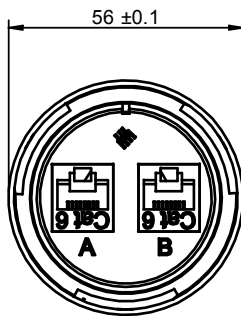
Front View



FRITS0032-2RJ45-1PGF6

CONFIGURATIONS AVAILABLE : ITS 01 - DOUBLE RJ45

Front View



FRITS0132-2RJ45-1N1F6

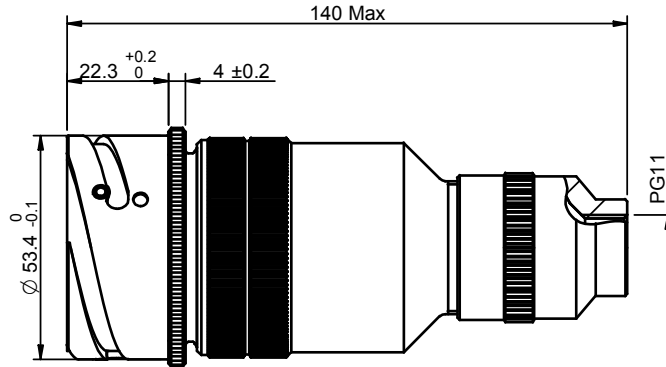
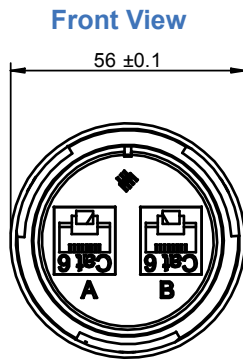
# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) with Double RJ45 Connectors



High-Speed  
Connectors

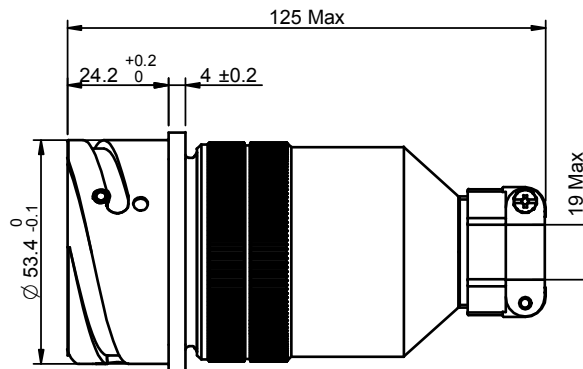
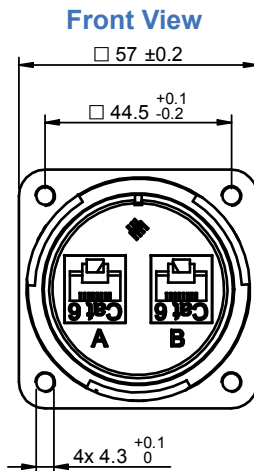
CONFIGURATIONS AVAILABLE : ITS 01 - DOUBLE RJ45

Suitable for n.2 RJ45 cables  $\varnothing$  5,5 / min.

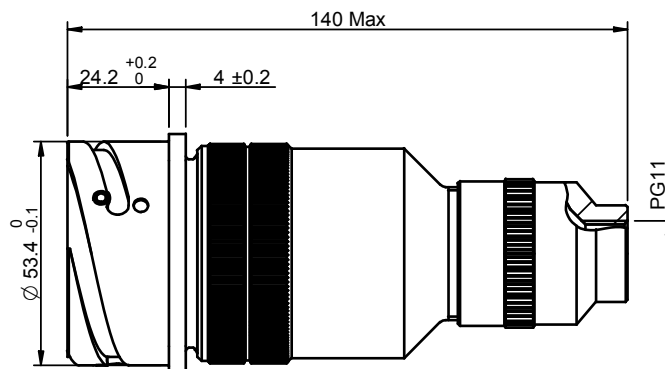
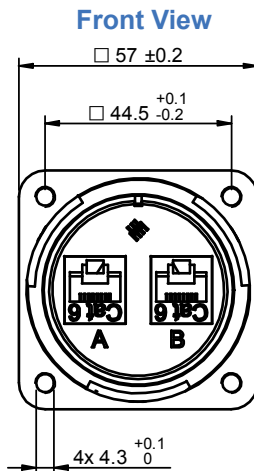


**FRITS0132-2RJ45-1PGF6**

CONFIGURATIONS AVAILABLE : ITS 030 - DOUBLE RJ45



**FRITS03032-2RJ45-1N1F6**



**FRITS03032-2RJ45-1N1F6**

Connectors



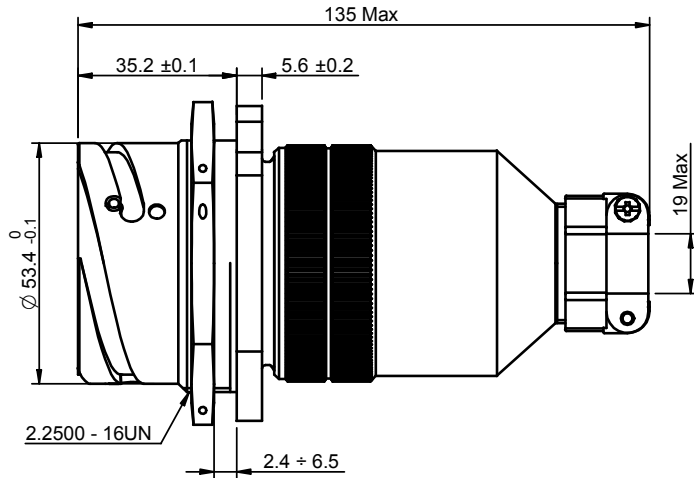
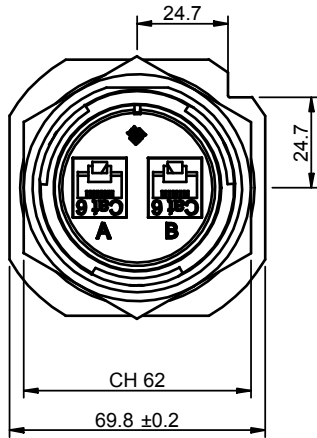


MIL-DTL-5015 Type Reverse Bayonet Coupling  
(Series ITS)  
with Double RJ45 Connectors

CONFIGURATIONS AVAILABLE : ITS 070 - DOUBLE RJ45

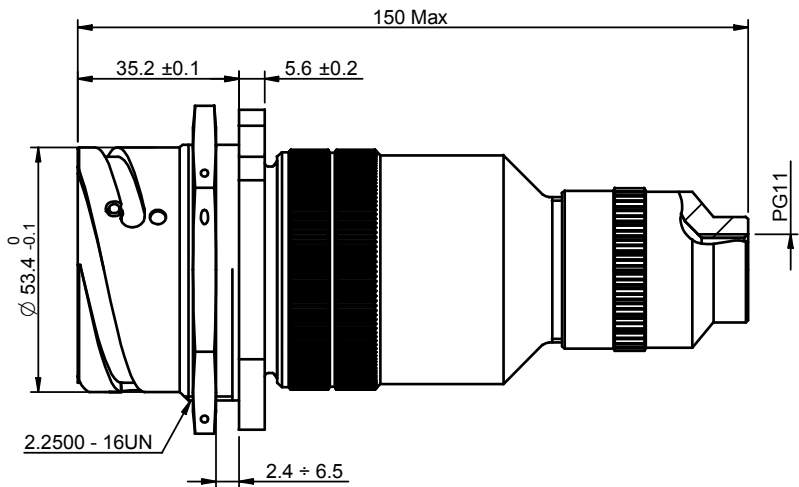
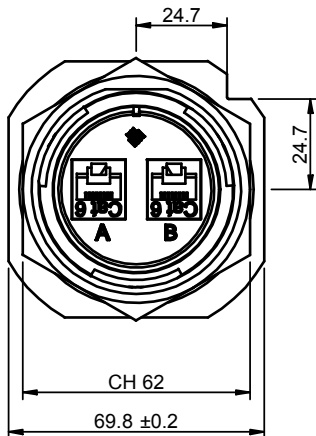
Suitable for n.2 RJ45 cables  $\varnothing$  5,5 / min.

Front View



FRITS07032-2RJ45-1N1F6

Front View



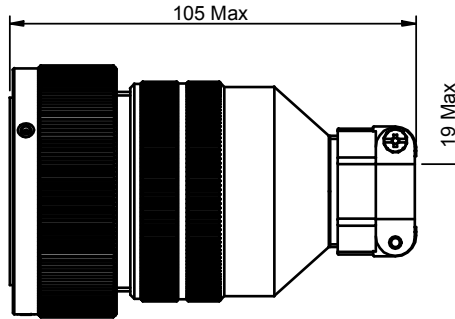
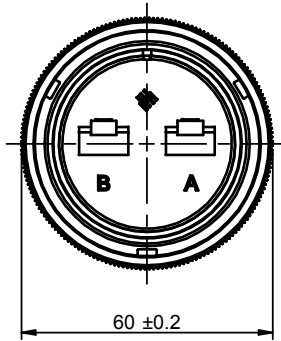
FRITS07032-2RJ45-1PGF6

MIL-DTL-5015 Type Reverse Bayonet Coupling  
(Series ITS)  
with Double RJ45 Connectors



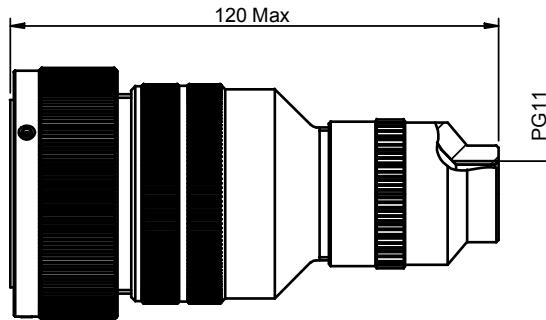
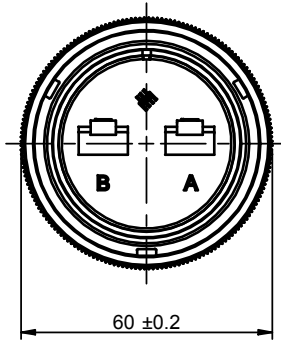
CONFIGURATIONS AVAILABLE : ITS 06 - DOUBLE RJ45

Front View



FRITS0632-2RJ45-3N1F6

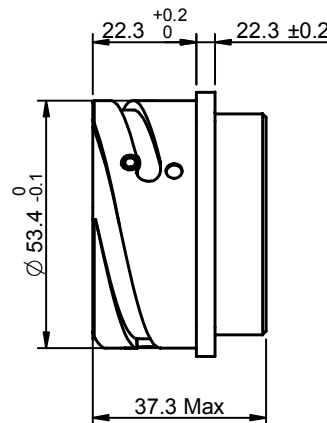
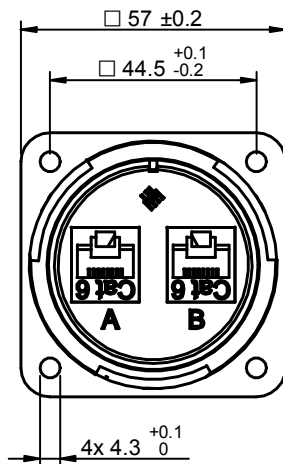
Front View



FRITS0632-2RJ45-3PGF6

CONFIGURATIONS AVAILABLE : ITS 02 - DOUBLE RJ45

Front View



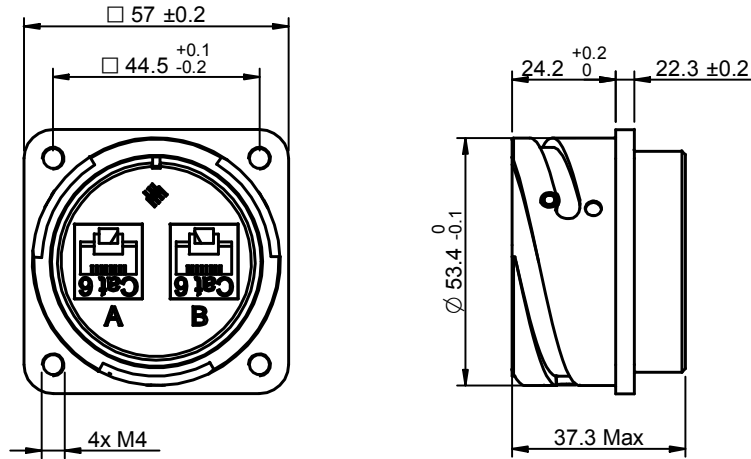
FRITS0232-2RJ45-1F6



MIL-DTL-5015 Type Reverse Bayonet Coupling  
(Series ITS)  
with Double RJ45 Connectors

CONFIGURATIONS AVAILABLE : ITS 03 - DOUBLE RJ45

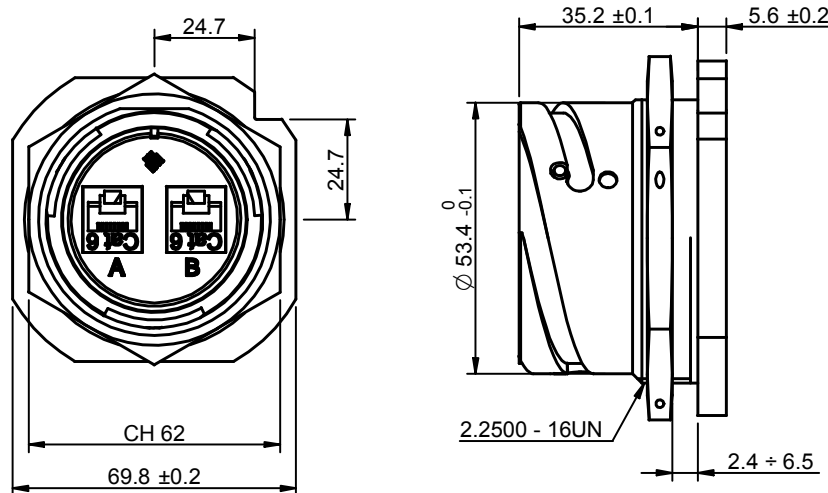
Front View



FRITS0332-2RJ45-1F6

CONFIGURATIONS AVAILABLE : ITS 07 - DOUBLE RJ45

Front View



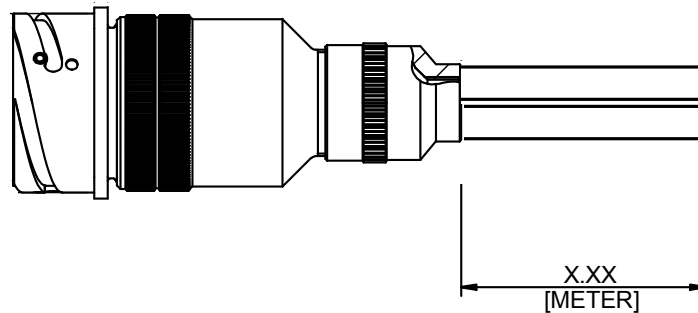
FRITS0732-2RJ45-1F6

# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) with Double RJ45 Connectors



PIGTAIL GENERAL SKETCHES AND CONFIGURATIONS AVAILABLE

## Female with Pigtail for Configuration : 00 - 01 - 030 - 070



EXAMPLE : FRITS0032-2RJ45-21.5PHMF6 → 1.5 mt Pigtail

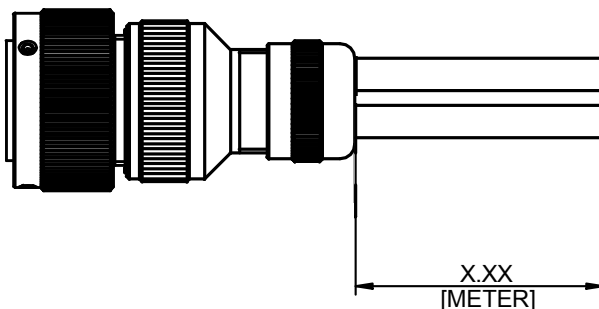
Female with Pigtail for Configuration : 00
FRITS0032-2RJ45-2X.xxN1F6
FRITS0032-2RJ45-2X.xxPGF6

Female with Pigtail for Configuration : 030
FRITS03032-2RJ45-2X.xxN1F6
FRITS03032-2RJ45-2X.xxPGF6

Female with Pigtail for Configuration : 01
FRITS0132-2RJ45-2X.xxN1F6
FRITS0132-2RJ45-2X.xxPGF6

Female with Pigtail for Configuration : 070
FRITS07032-2RJ45-2X.xxN1F6
FRITS07032-2RJ45-2X.xxPGF6

## Male with Pigtail for Configuration : 06



Female with Pigtail for Configuration : 06
FRITS0632-2RJ45-4X.xxN1F6
FRITS0632-2RJ45-4X.xxPGF6

EXAMPLE : FRITS0632-2RJ45-41.5PHMF6 → 1.5 mt Pigtail



# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-A Connector

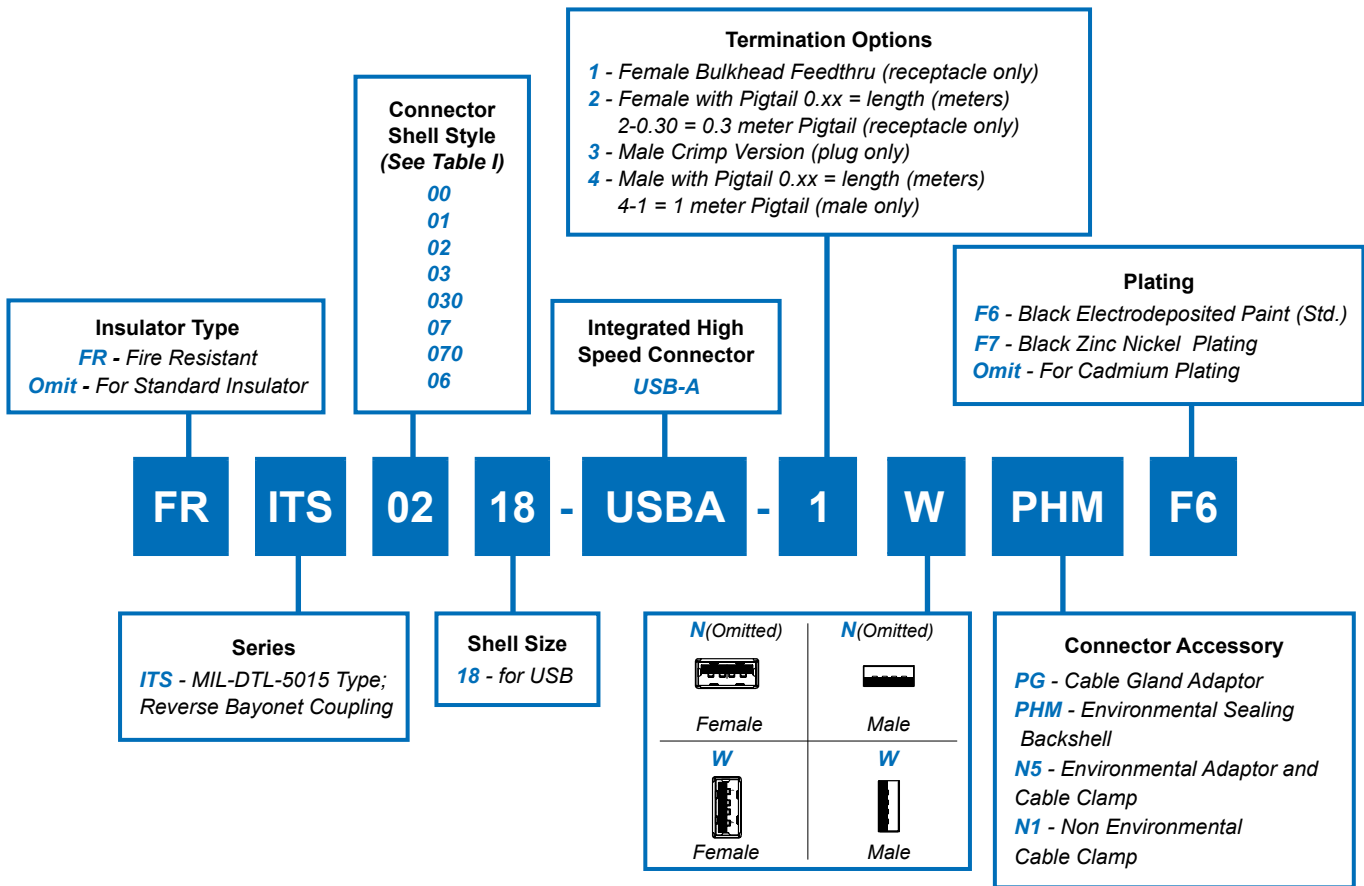


Figure 1  
Receptacle (Front)

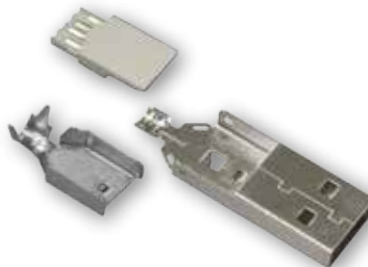


Figure 2  
Plug (Front)



# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-A Connector



**TABLE I**

**Connector Shell  
Detailed Description**

- 00 - Front Panel Mount Square Flange Receptacle with Accessory Threads*
- 01 - In Line Cylindrical Receptacle with Accessory Threads*
- 02 - Front Panel Mount Square Flange Receptacle; No Accessory Threads*
- 03 - Rear Panel Mount Square Flange Receptacle; No Accessory Threads*
- 030 - Rear Panel Mount Square Flange Receptacle with Accessory Threads*
- 07 - Rear Panel Mount Jam Nut Receptacle; No Accessory Threads*
- 070 - Rear Panel Mount Jam Nut Receptacle with Accessory Threads*
- 06 - Straight Cylindrical Plug Connector with Accessory Threads*

Commercial-grade USB-A connectors are intended for use in clean, dry environments. Exposure to dirt and moisture can lead to damage or failure. Glenair's sealed USB-A connectors and feed-thrus provide a high level of protection for the most hostile environments. Standard USB-A connectors are housed in rugged, waterproof ITS and IPT Series bayonet connectors. Connectors feature resilient nitrile inserts and electrodeposited corrosion-resistant black paint or black zinc nickel plating. Cadmium plating is also available. A typical ITS USB-A application consists of a through bulkhead female receptacle (*Figure 1*) and a male plug crimp USB-A (*Figure 2*).

**TECHNICAL CHARACTERISTICS**

Insert Arrangement	USB Type A
Dielectric Withstanding Voltage	500 Volts AC for 1 minute
Current Rating	1 Amp Max
Max. Contact Resistance	30 mΩ
Min. Insulation Resistance	1.000 mΩ at 500 Volts DC
Working Temperature	-55° to +105° C
Environmental Rating	IP67 (mated)

## Assembly Instructions

1. Slide domed nut, rubber bushing, compression fitting and adapter over cable.
2. Strip and prep USB cable.
3. Solder wires to USB Insert.
4. Install USB insert into housing and attach lid.
5. Crimp lid to shield using hex crimp tool.
6. Push assembled USB connector into back side of dielectric; until the metal tab bottoms on the rubber insulator.
7. Install strain relief components and securely tighten.
8. For use with M24758A conduit, remove stock backshell and replace with M24758/29 conduit adapter.



**Solder wires to USB-A  
Insert**



**Install insert, attach  
lid, and crimp shield**



**Push terminated USB connector  
into the dielectric until the tab  
bottoms in the notch**

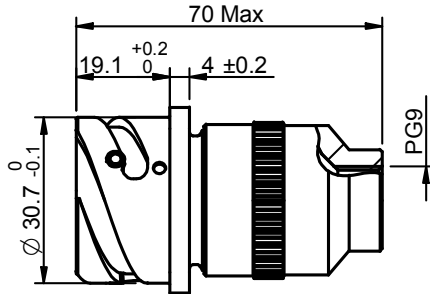
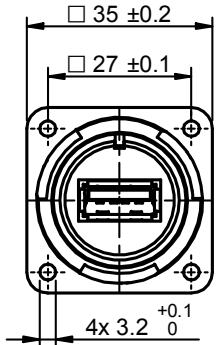


**Attach adapter, fitting,  
bushing and nut. Securely  
tighten.**

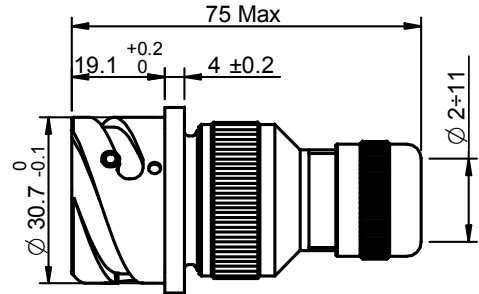
# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-A Connector

CONFIGURATIONS AVAILABLE : ITS 00

Front View

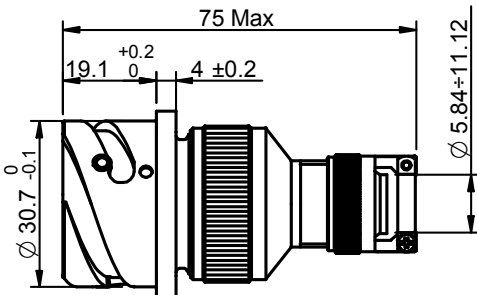
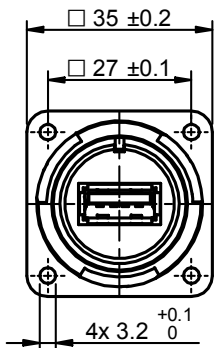


FRITS0018-USBA-1PGF6

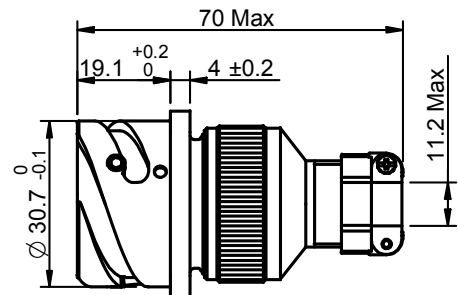


FRITS0018-USBA-1PHMF6

Front View



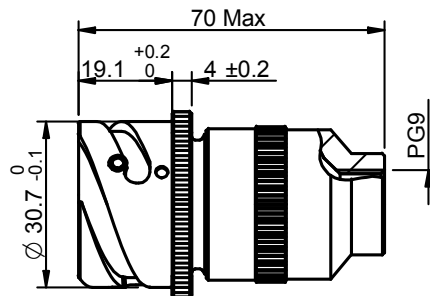
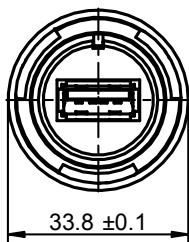
FRITS0018-USBA-1N5F6



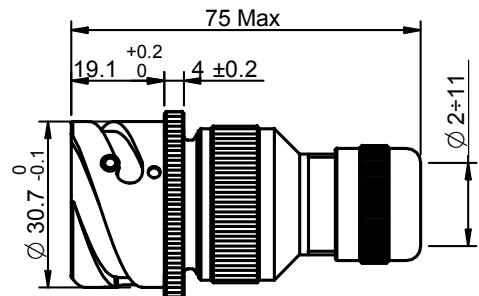
FRITS0018-USBA-1N1F6

CONFIGURATIONS AVAILABLE : ITS 01

Front View



FRITS0118-USBA-1PGF6



FRITS0118-USBA-1PHMF6

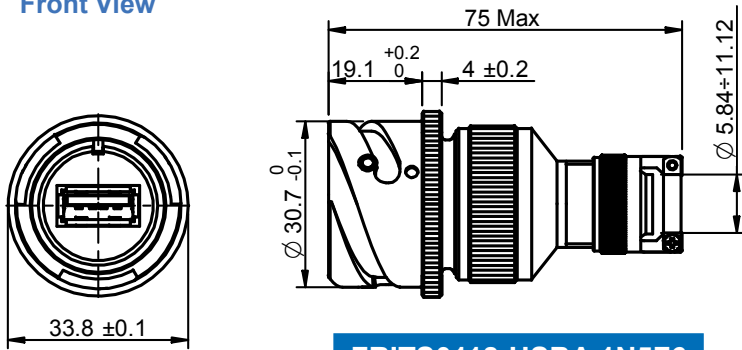
# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-A Connector



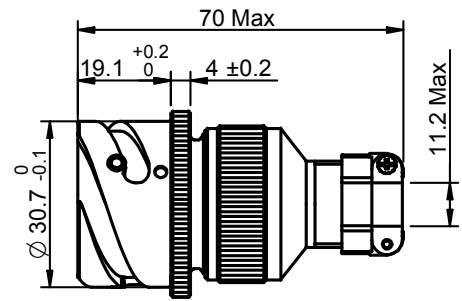
High-Speed  
Connectors

CONFIGURATIONS AVAILABLE : ITS 01

Front View



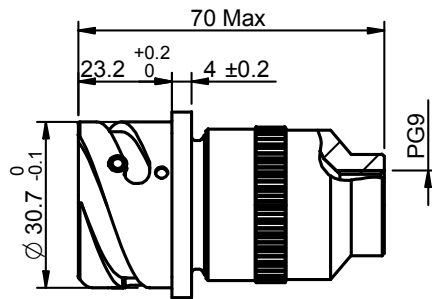
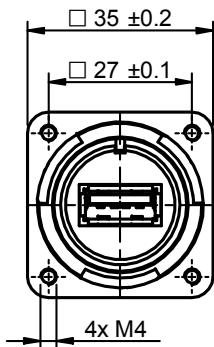
FRITS0118-USBA 1N5F6



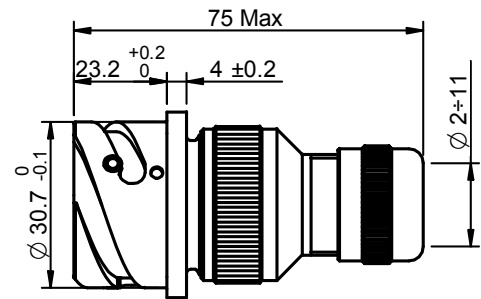
FRITS0118-USBA-1N1F6

CONFIGURATIONS AVAILABLE : ITS 030

Front View

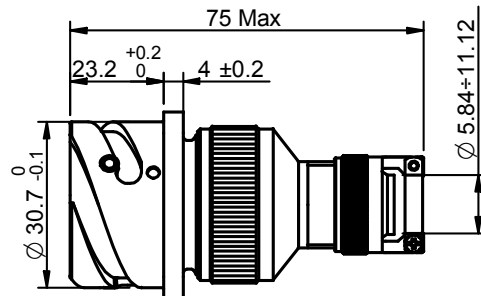
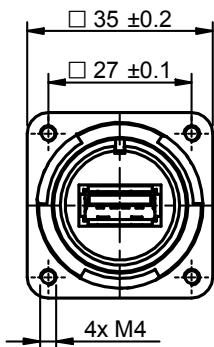


FRITS03018-USBA-1PGF6

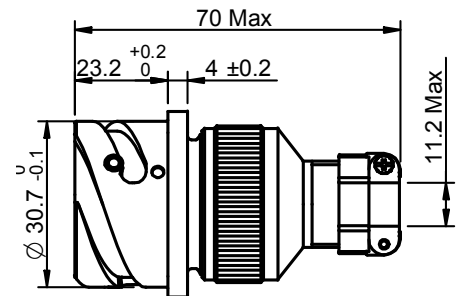


FRITS03018-USBA-1PHMF6

Front View



FRITS03018-USBA-1N5F6



FRITS03018-USBA-1N1F6

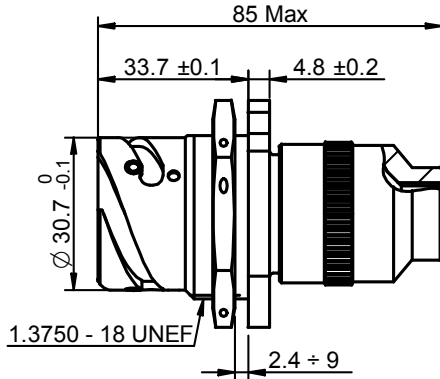
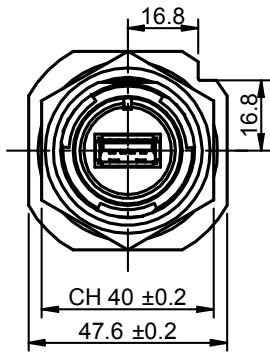
Connectors



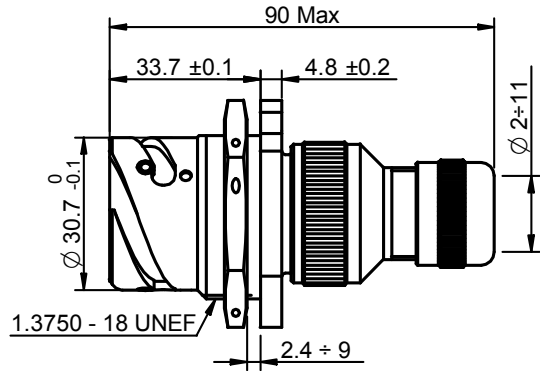
MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-A Connector

CONFIGURATIONS AVAILABLE : ITS 070

Front View

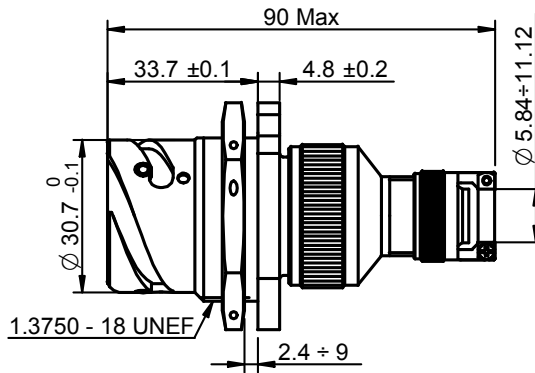
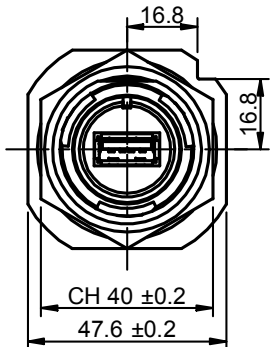


FRITS07018-USBA - 1 - PG F6

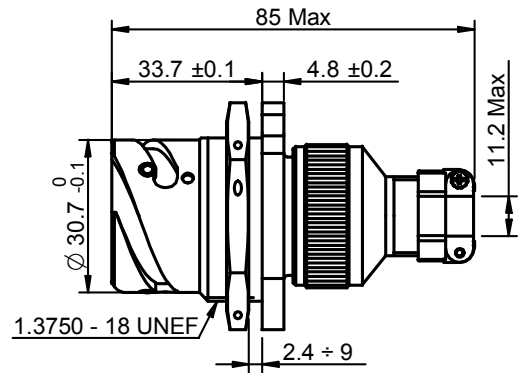


FRITS07018-USBA-1PHM F6

Front View



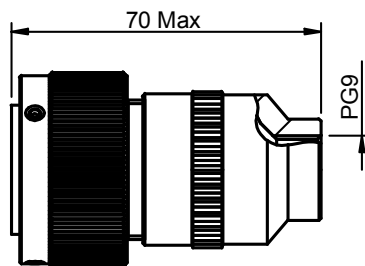
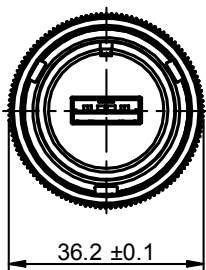
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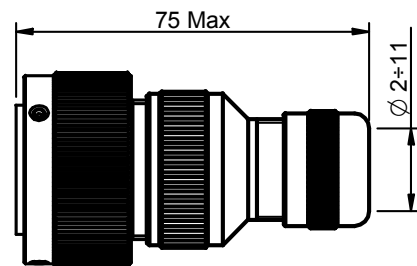
FRITS07018-USBA-1N1F6

CONFIGURATIONS AVAILABLE : ITS 06

Front View



FRITS0618-USBA-3PGF6



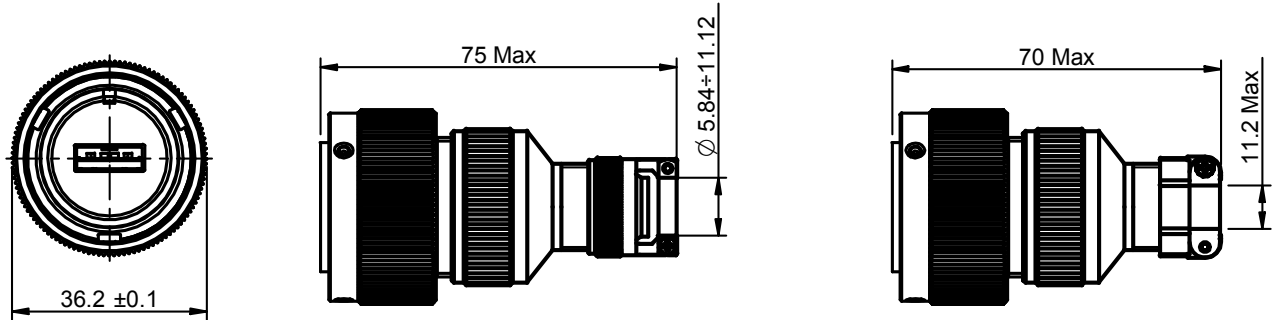
FRITS0618-USBA-3PHMF6

MIL-DTL-5015 Type Reverse Bayonet Coupling  
(Series ITS)  
USB-A Connector



CONFIGURATIONS AVAILABLE : ITS 06

Front View

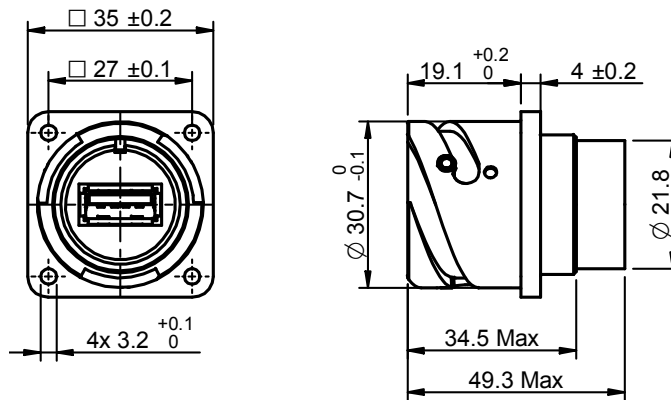


FRITS0618-USBA-3N5F6

FRITS0618-USBA-3N1F6

CONFIGURATIONS AVAILABLE : ITS 02

Front View



FRITS0218-USBA-1F6

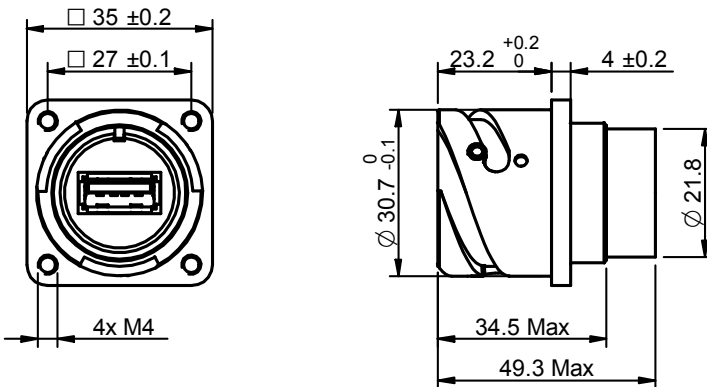




MIL-DTL-5015 Type Reverse Bayonet Coupling  
(Series ITS)  
USB-A Connector

CONFIGURATIONS AVAILABLE : ITS 03

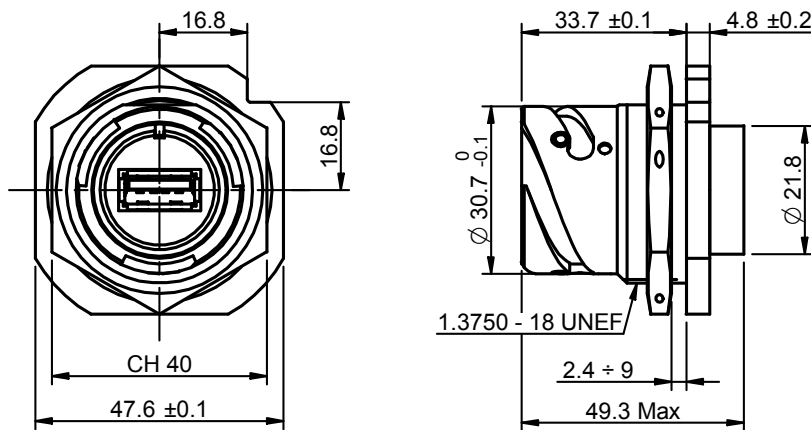
Front View



FRITS0318-USBA-1F6

CONFIGURATIONS AVAILABLE : ITS 07

Front View



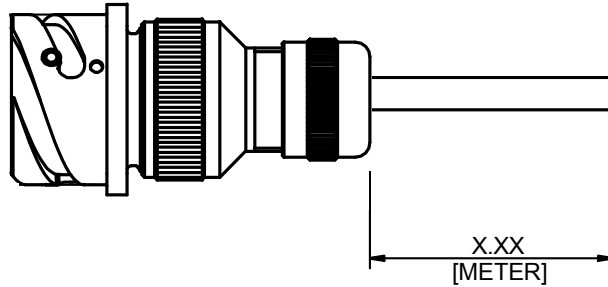
FRITS0718-USBA-1F6

# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-A Connector



PIGTAIL GENERAL SKETCHES AND CONFIGURATIONS AVAILABLE

## Female with Pigtail for Configuration : 00 - 01 - 030 - 070



EXAMPLE : FRITS0018-USBA-21.5PHMF6 → 1.5 mt Pigtail

### Female with Pigtail for Configuration : 00

FRITS0018-USBA-2X.xxN1F6
FRITS0018-USBA-2X.xxN5F6
FRITS0018-USBA-2 X.xxPHMF6
FRITS0018-USBA-2X.xxPGF6

### Female with Pigtail for Configuration : 030

FRITS03018-USBA-2X.xxN1F6
FRITS03018-USBA-2X.xxN5F6
FRITS03018-USBA-2X.xxPHMF6
FRITS03018-USBA-2X.xxPGF6

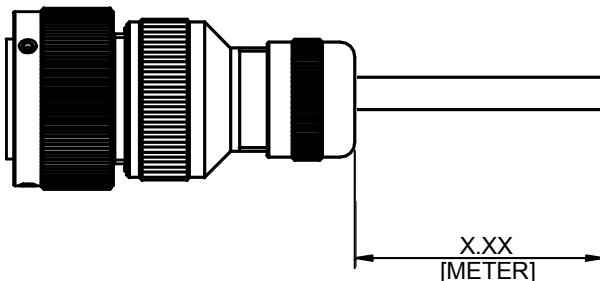
### Female with Pigtail for Configuration : 01

FRITS0118-USBA-2X.xxN1F6
FRITS0118-USBA-2X.xxN5F6
FRITS0118-USBA-2X.xxPHMF6
FRITS0118-USBA-2X.xxPGF6

### Female with Pigtail for Configuration : 070

FRITS07018-USBA-2X.xxN1F6
FRITS07018-USBA-2X.xxN5F6
FRITS07018-USBA-2X.xxPHMF6
FRITS07018-USBA-2X.xxPGF6

## Male with Pigtail for Configuration : 06



### Female with Pigtail for Configuration : 06

FRITS0618-USBA-4X.xxN1F6
FRITS0618-USBA-4X.xxN5F6
FRITS0618-USBA-4X.x PHMF6
FRITS0618-USBA-4X.xxPGF6

EXAMPLE : FRITS0618-USBA-41.5PHMF6 → 1.5 mt Pigtail



# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-B Connector

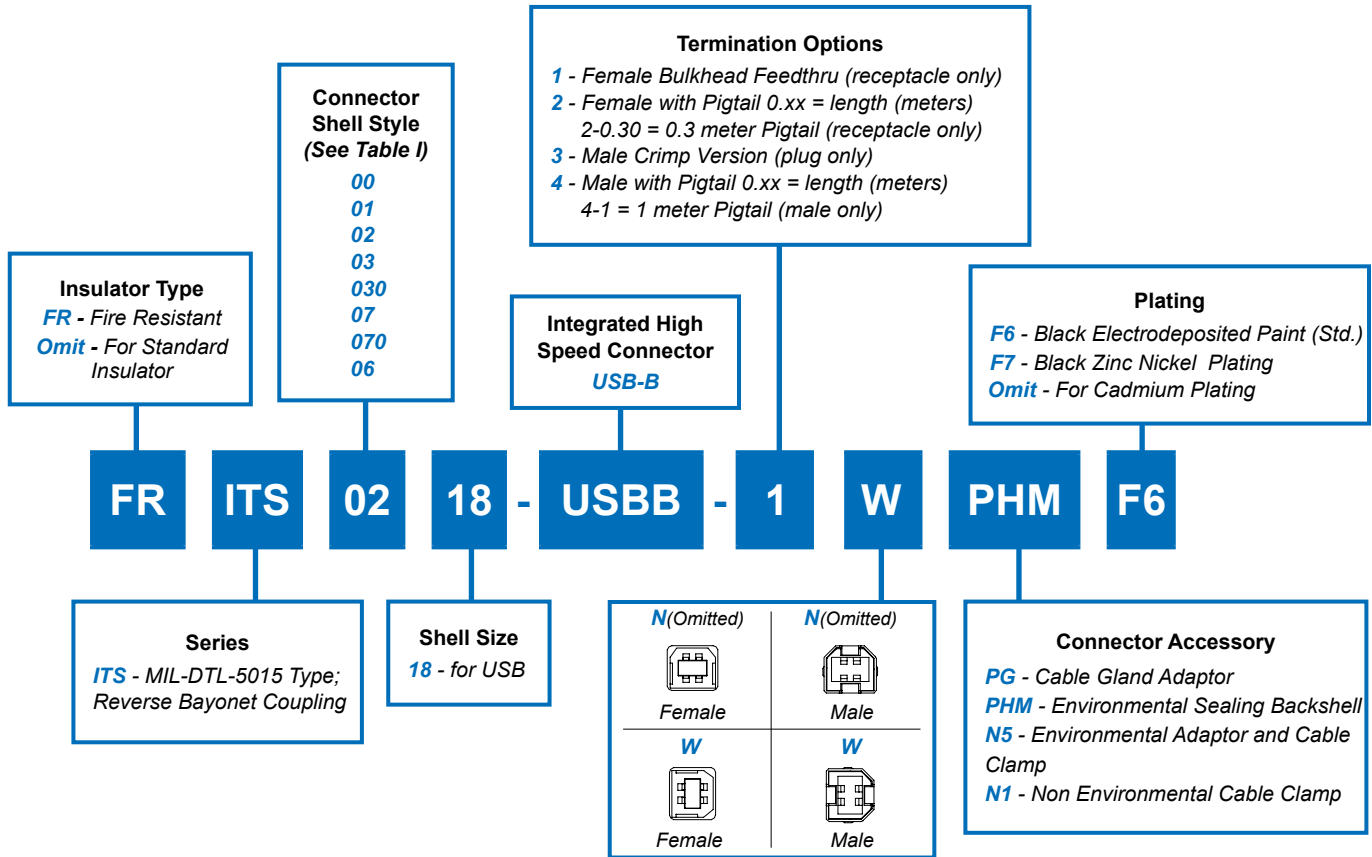


Figure 1  
Receptacle (Front)



Figure 2  
Plug (Front)



# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-B Connector



**TABLE I**

**Connector Shell  
Detailed Description**

- 00 - Front Panel Mount Square Flange Receptacle with Accessory Threads*
- 01 - In Line Cylindrical Receptacle with Accessory Threads*
- 02 - Front Panel Mount Square Flange Receptacle; No Accessory Threads*
- 03 - Rear Panel Mount Square Flange Receptacle; No Accessory Threads*
- 030 - Rear Panel Mount Square Flange Receptacle with Accessory Threads*
- 07 - Rear Panel Mount Jam Nut Receptacle; No Accessory Threads*
- 070 - Rear Panel Mount Jam Nut Receptacle with Accessory Threads*
- 06 - Straight Cylindrical Plug Connector with Accessory Threads*

Commercial-grade USB-B connectors are intended for use in clean, dry environments. Exposure to dirt and moisture can lead to damage or failure. Glenair's sealed USB-B connectors and feed-thrus provide a high level of protection for the most hostile environments. Standard USB-B connectors are housed in rugged, waterproof ITS and IPT Series bayonet connectors. Connectors feature resilient nitrile inserts and electrodeposited corrosion-resistant black paint or black zinc nickel plating. Cadmium plating is also available. A typical ITS USB-B application consists of a through bulkhead female receptacle (Figure 1) and a male plug crimp USB-B (Figure 2).

**TECHNICAL CHARACTERISTICS**

Insert Arrangement	USB Type B
Dielectric Withstanding Voltage	500 Volts AC for 1 minute
Current Rating	1 Amp Max
Max. Contact Resistance	30 mΩ
Min. Insulation Resistance	1.000 mΩ at 500 Volts DC
Working Temperature	-55° to +105° C
Environmental Rating	IP67 (with metal cap)

## Assembly Instructions

1. Slide domed nut, rubber bushing, compression fitting and adapter over cable.
2. Strip and prep USB cable.
3. Solder wires to USB Insert.
4. Install USB insert into housing and attach lid.
5. Crimp lid to shield using hex crimp tool.
6. Push assembled USB connector into back side of dielectric; until the metal tab bottoms on the rubber insulator.
7. Install strain relief components and securely tighten.
8. For use with M24758A conduit, remove stock backshell and replace with M24758/29 conduit adapter.



**Solder wires to USB-B  
Insert**



**Install insert, attach  
lid, and crimp shield**



**Push terminated USB connector  
into the dielectric until the tab  
bottoms in the notch**

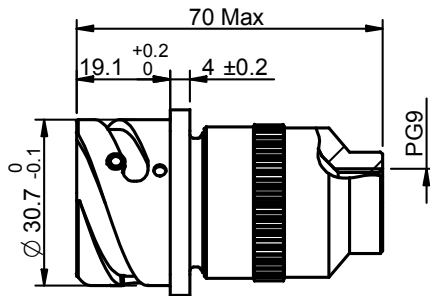
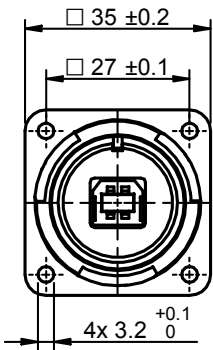


**Attach adapter, fitting,  
bushing and nut. Securely  
tighten.**

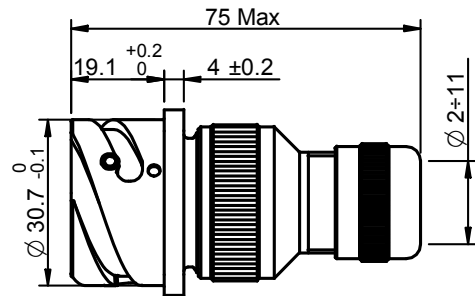
# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-B Connector

## CONFIGURATIONS AVAILABLE : ITS 00

Front View

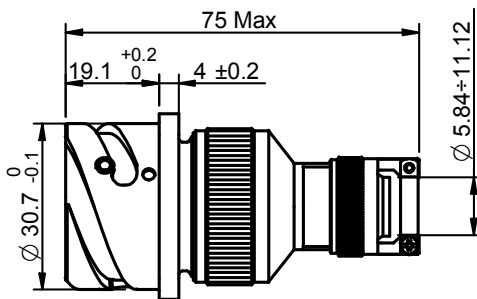
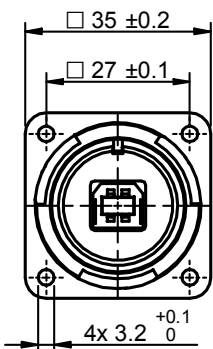


FRITS0018-USBB-1PGF6

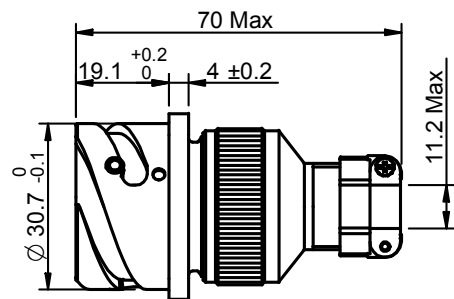


FRITS0018-USBB-1PHMF6

Front View



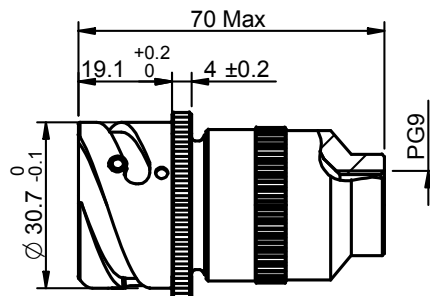
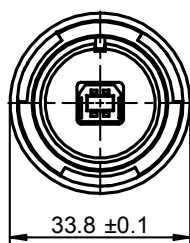
FRITS0018-USBB-1N5F6



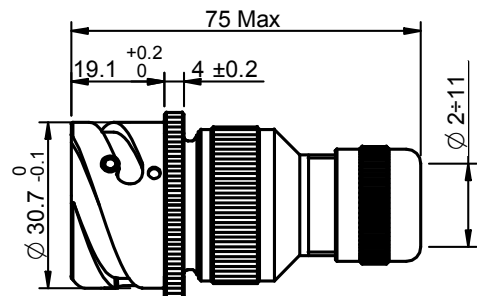
FRITS0018-USBB-1N1F6

## CONFIGURATIONS AVAILABLE : ITS 01

Front View



FRITS0118-USBB-1PGF6



FRITS0118-USBB-1PHMF6



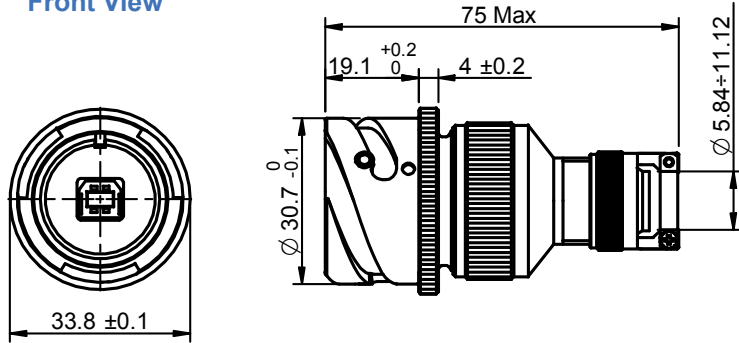
# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-B Connector



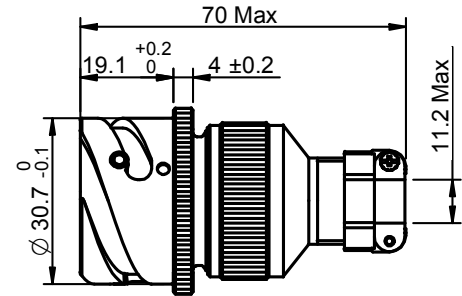
High-Speed  
Connectors

CONFIGURATIONS AVAILABLE : ITS 01

Front View



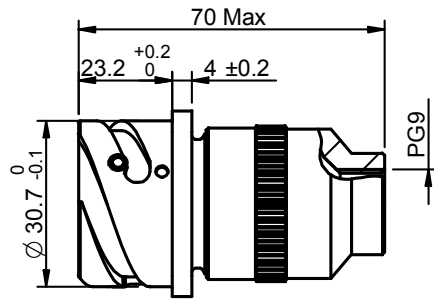
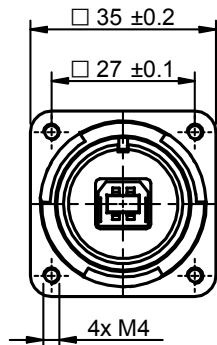
FRITS0118-USB-1N5F6



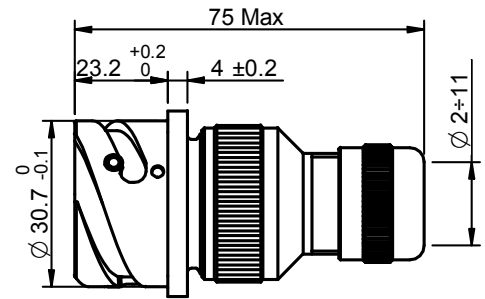
FRITS0118-USB-1N1F6

CONFIGURATIONS AVAILABLE : ITS 030

Front View

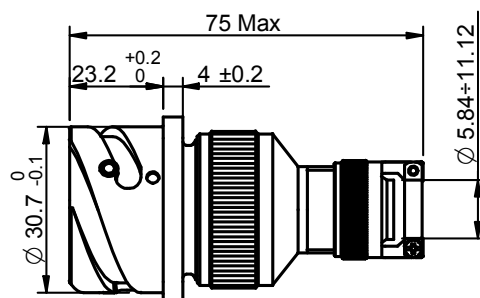
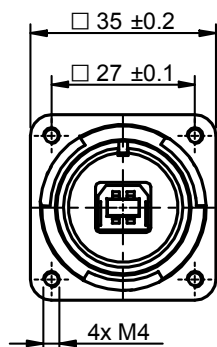


FRITS03018-USB-1PGF6

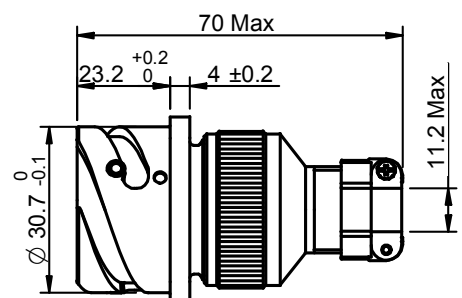


FRITS03018-USB-1PHMF6

Front View



FRITS03018-USB-1N5F6



FRITS03018-USB-1N1F6

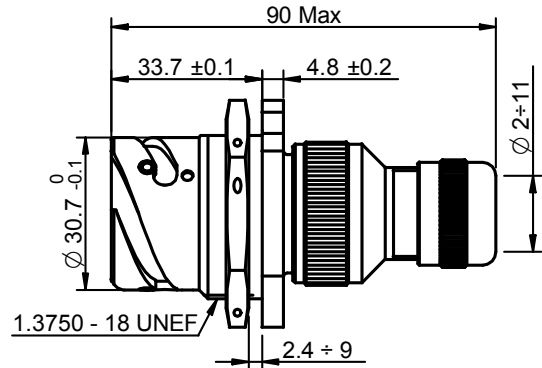
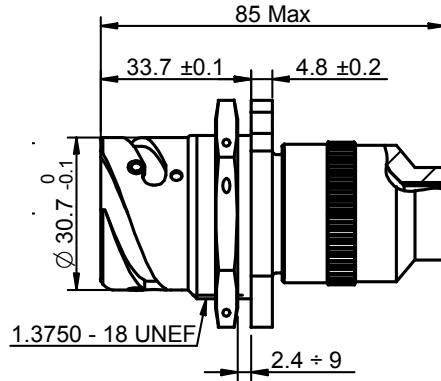
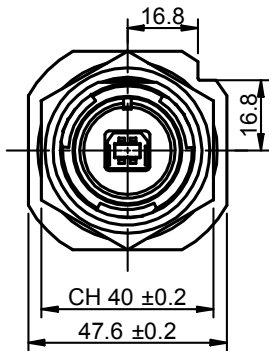
Connectors



# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-B Connector

## CONFIGURATIONS AVAILABLE : ITS 070

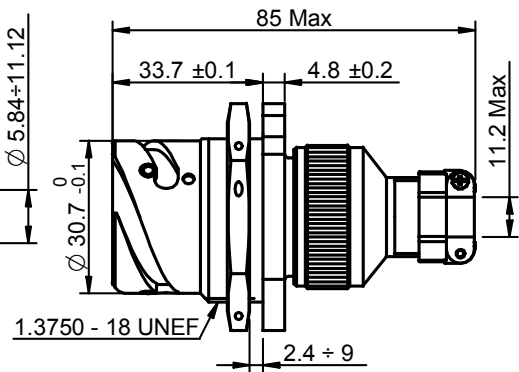
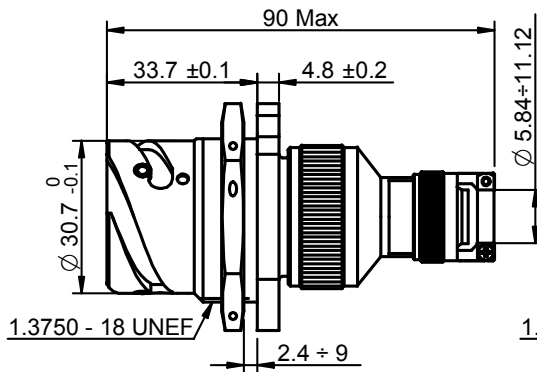
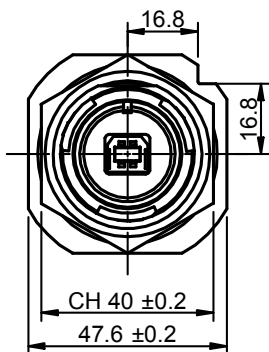
Front View



FRITS07018-USBB-1PG F6

FRITS07018-USBB-1PHM F6

Front View

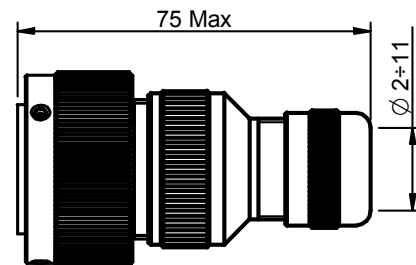
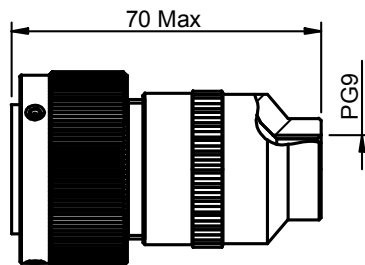
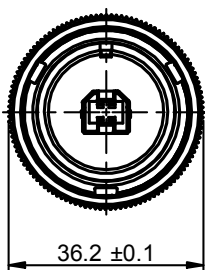


FRITS07018-USBB-1N5F6

FRITS07018-USBB-1N1F6

## CONFIGURATIONS AVAILABLE : ITS 06

Front View



FRITS0618-USBB-3PGF6

FRITS0618-USBB-3PHMF6

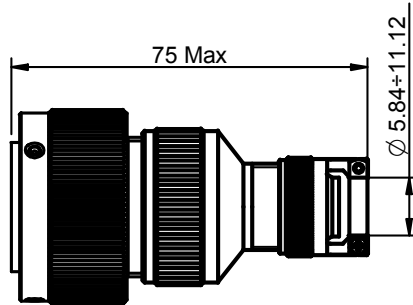
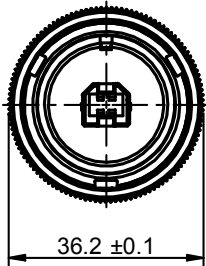
MIL-DTL-5015 Type Reverse Bayonet Coupling  
(Series ITS)  
USB-B Connector



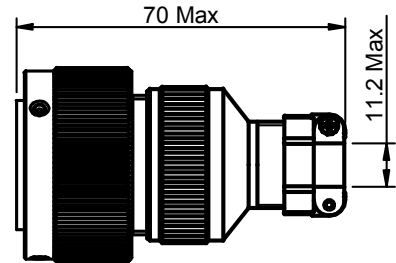
High-Speed  
Connectors

CONFIGURATIONS AVAILABLE : ITS 06

Front View



FRITS0618-USBB-3N5F6

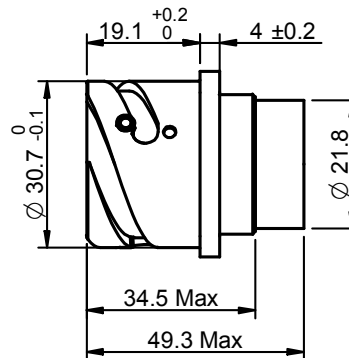
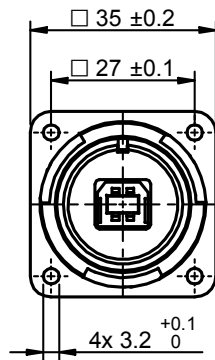


FRITS0618-USBB-3N1F6

Connectors

CONFIGURATIONS AVAILABLE : ITS 02

Front View



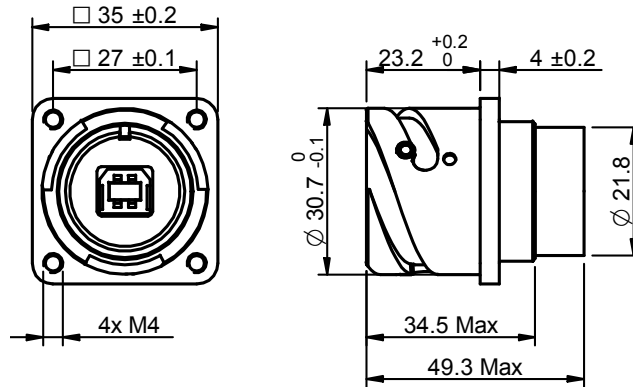
FRITS0218-USBB-1F6



MIL-DTL-5015 Type Reverse Bayonet Coupling  
(Series ITS)  
USB-B Connector

CONFIGURATIONS AVAILABLE : ITS 03

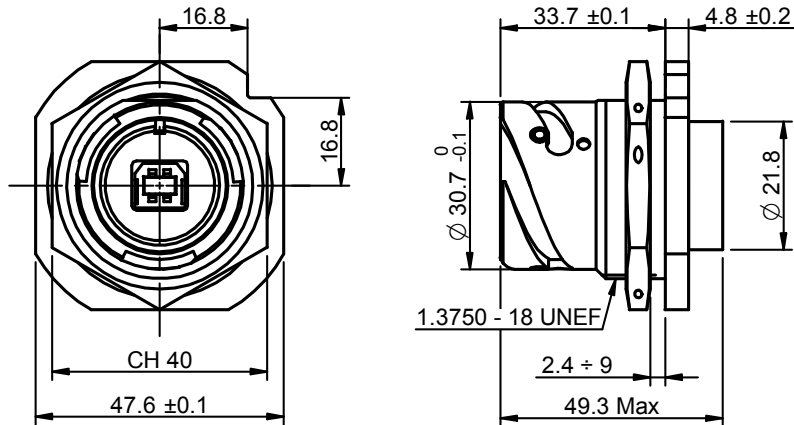
Front View



FRITS0318-USB-1F6

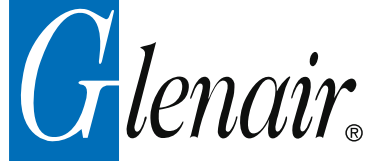
CONFIGURATIONS AVAILABLE : ITS 07

Front View



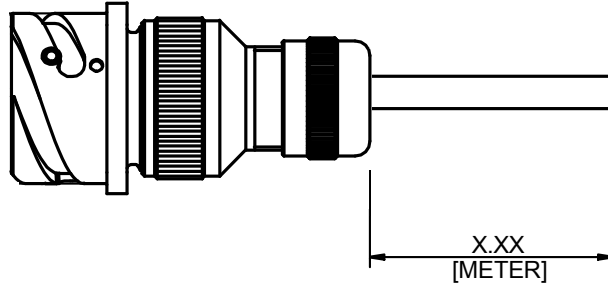
FRITS0718-USB-1F6

# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITS) USB-B Connector



PIGTAIL GENERAL SKETCHES AND CONFIGURATIONS AVAILABLE

## Female with Pigtail for Configuration : 00 - 01 - 030 - 070



EXAMPLE : FRITS0018-USBB-21.5PHMF6 → 1.5 mt Pigtail

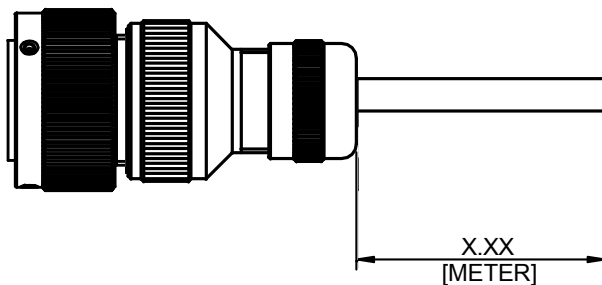
Female with Pigtail for Configuration : 00
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FRITS0018-USBB-2X.xxN5F6
FRITS0018-USBB-2X.xxPHMF6
FRITS0018-USBB-2X.xxPGF6

Female with Pigtail for Configuration : 030
FRITS03018-USBB-2X.xxN1F6
FRITS03018-USBB-2X.xxN5F6
FRITS03018-USBB-2X.xxPHMF6
FRITS03018-USBB-2X.xxPGF6

Female with Pigtail for Configuration : 01
FRITS0118-USBB-2X.xxN1F6
FRITS0118-USBB-2X.xxN5F6
FRITS0118-USBB-2X.xxPHMF6
FRITS0118-USBB-2X.xxPGF6

Female with Pigtail for Configuration : 070
FRITS07018-USBB-2X.xxN1F6
FRITS07018-USBB-2X.xxN5F6
FRITS07018-USBB-2X.xxPHMF6
FRITS07018-USBB-2X.xxPGF6

## Male with Pigtail for Configuration : 06



Female with Pigtail for Configuration : 06
FRITS0618-USBB-4X.xxN1F6
FRITS0618-USBB-4X.xxN5F6
FRITS0618-USBB-4X.xxPHMF6
FRITS0618-USBB-4X.xxPGF6

EXAMPLE : FRITS0618-USBB-41.5PHMF6 → 1.5 mt Pigtail



MIL-DTL-5015 Type Reverse Bayonet or Threaded Coupling (Series IT and ITS) USB-A Memory Key

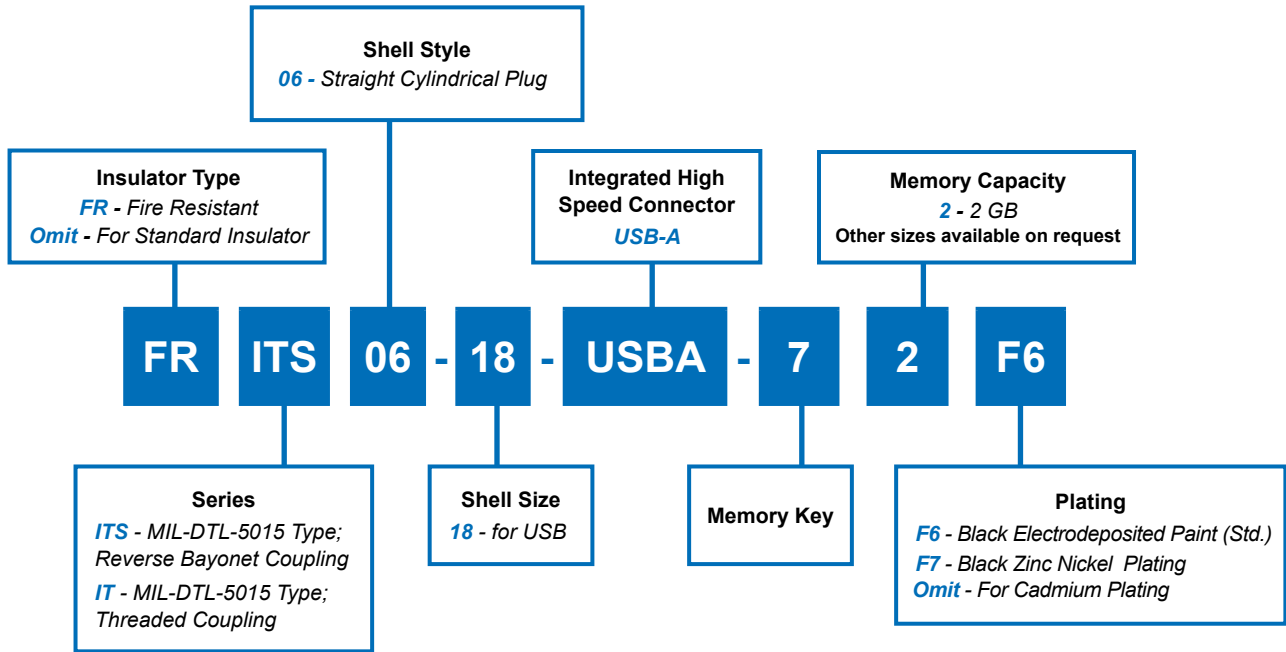


Figure 1  
ITS  
with USB-A Memory Key



# MIL-DTL-5015 Type Reverse Bayonet or Threaded Coupling (Series IT and ITS) USB-A Memory Key

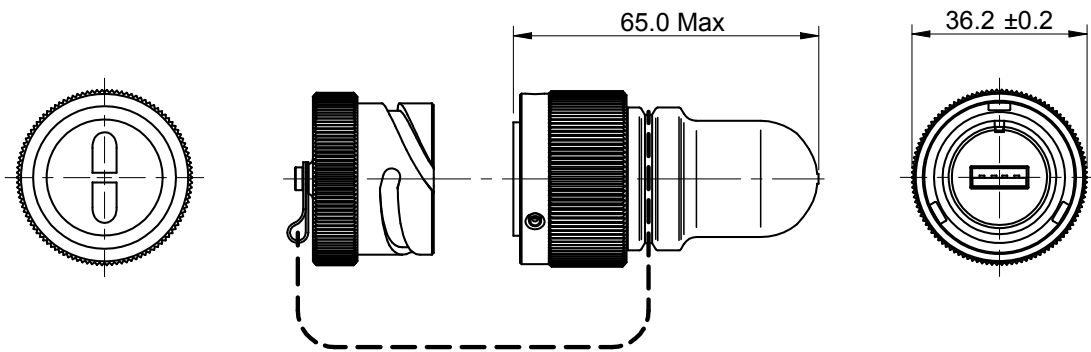
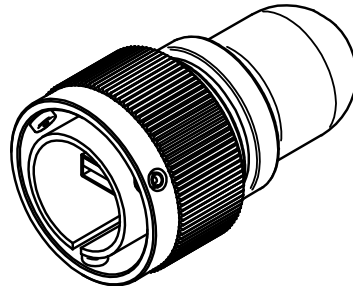


Glenair combines the convenience of a USB-A memory key with the durability and environmental sealing of threaded or bayonet coupling MIL-DTL-5015 Type Connectors. Available in a robust aluminum shell with black electrodeposited paint or black zinc nickel plating, the Glenair USB-A memory key mates with your choice of IT or ITS type connectors with female USB-A contacts. Cadmium plating is also available.

Standard capacity: 2GB

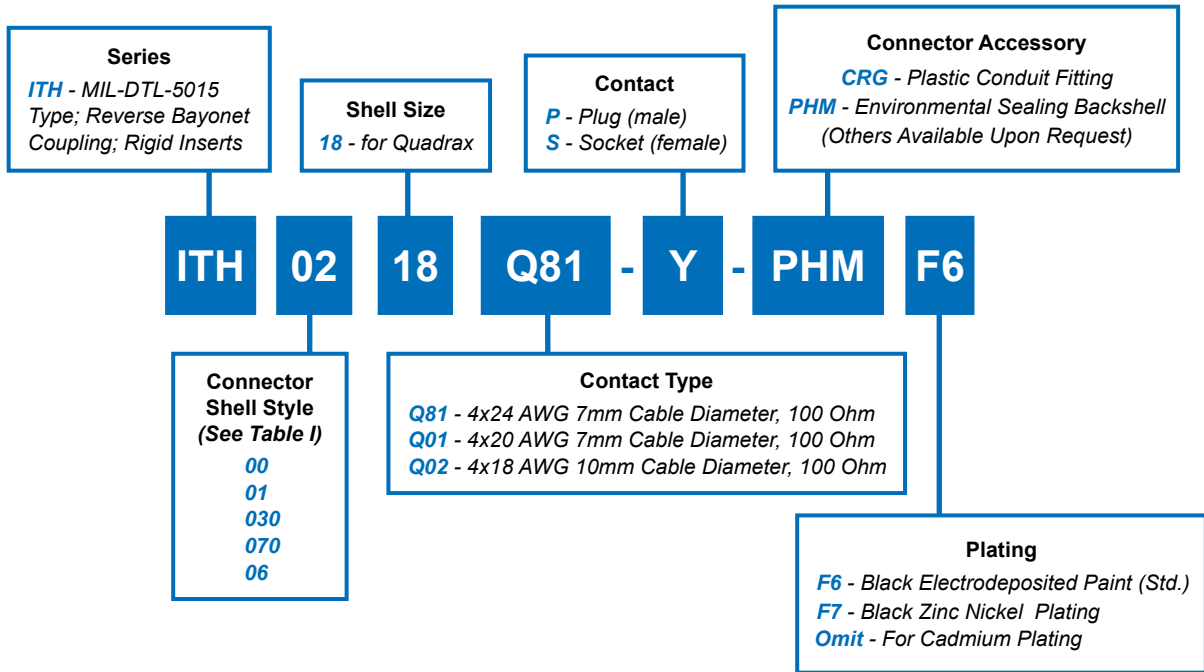
TECHNICAL CHARACTERISTICS	
Inserts and Grommet	Suitable Rubber
Gaskets	Neoprene Rubber
Metallic Parts	Aluminum Alloy RoHS Compliant Finish Available
Contact	USB Type A Insert
Insulator	P.B.T UL 94-V0
Environmental Rating	IP67 (mated)
Memory Capability	2GB Standard *

\* (for other sizes available, please contact the factory)





# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITH) Quadrax Connector



**Figure 1**  
Receptacle (Front)



**Figure 2**  
Plug (Front)

# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITH) Quadrax Connector



**TABLE I**

**Connector Shell  
Detailed Description**

**00** - Front Panel Mount  
Square Flange Receptacle  
with Accessory Threads

**01** - In Line Cylindrical  
Receptacle with Accessory  
Threads

**030** - Rear Panel Mount  
Square Flange Receptacle  
with Accessory Threads

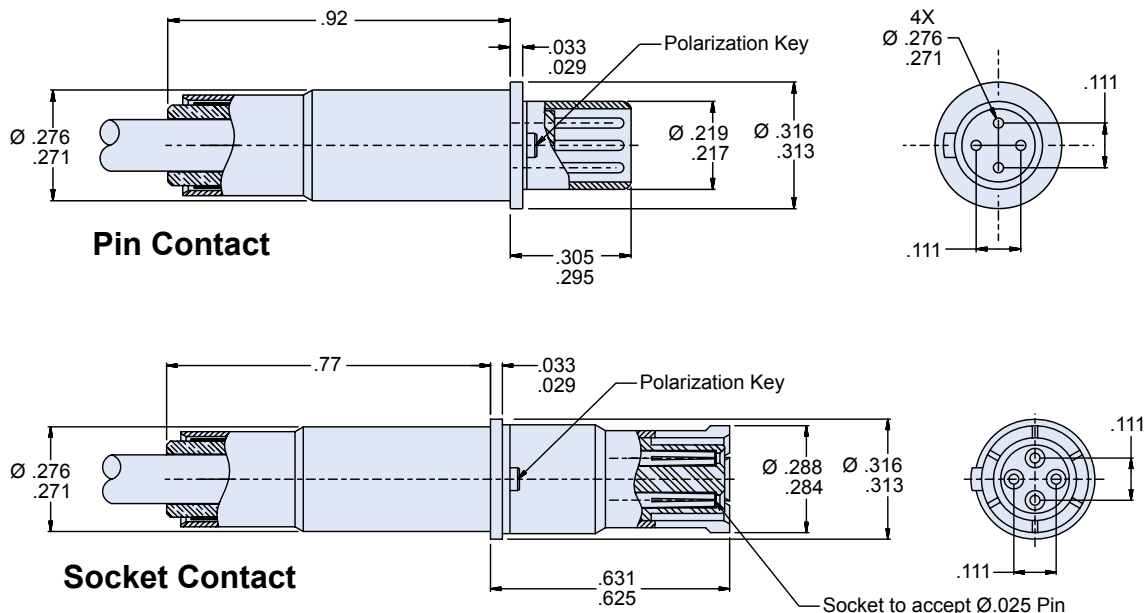
**070** - Rear Panel Mount  
Jam Nut Receptacle with  
Accessory Threads

**06** - Straight Cylindrical Plug  
Connector with Accessory  
Threads

High Speed quadrax connectors offer a host of data transmission benefits, but are often hamstrung by their lack of environmental sealing and durability. Glenair recognized this and created a high speed quadrax contact housed within a rugged ITH series reverse bayonet 5015 type connector. Users can now satisfy their high speed data transmission needs with the reliability of an environmentally sealed and backshell compatible connection system. The ITH Gigastar connector is available with three different contacts and black electrodeposited and black zinc nickel plating options. Cadmium plating is also available.

TECHNICAL CHARACTERISTICS	
Suitable for cables equivalent to CAT. 5	
Attenuation	.3 dB @ 100MHz (typical per contact pair)
Crosstalk	≥40 dB @ 100 MHz (typical)
Max Contact Resistance	15 mΩ
Characteristic Impedance	150 Ω (100 MHz - 1 GHz)
Working Temperature	-40° C to +100° C
Environmental Rating	IP67 (mated)
Contacts	Q81 - 4x24 AWG 7mm Cable Diameter, 100 Ohm Q01 - 4x20 AWG 7mm Cable Diameter, 100 Ohm Q02 - 4x18 AWG 10mm Cable Diameter, 100 Ohm

## QUADRAX CONTACTS

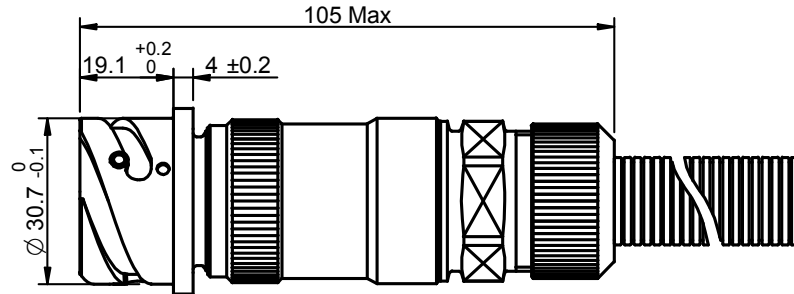
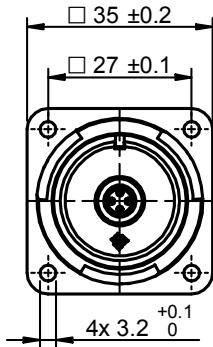




# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITH) Quadrx Connector

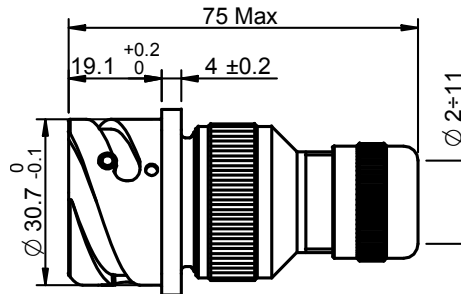
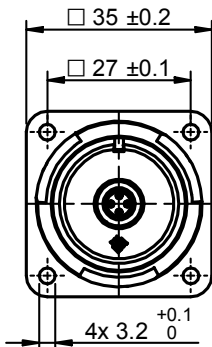
CONFIGURATIONS AVAILABLE : ITH 00

Front View



ITH0018QXX-Y-CRGF6

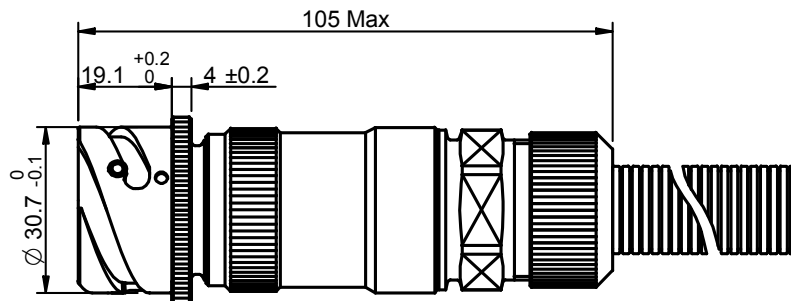
Front View



ITH0018QXX-Y-PHMF6

CONFIGURATIONS AVAILABLE : ITH 01

Front View



ITH0118QXX-Y-CRGF6

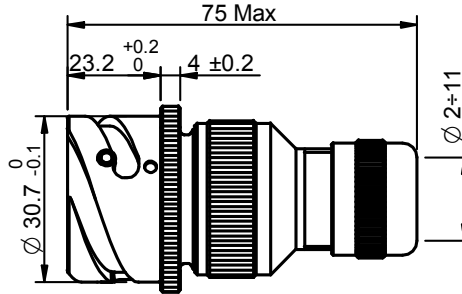
MIL-DTL-5015 Type Reverse Bayonet Coupling  
(Series ITH)  
Quadrx Connector



High-Speed  
Connectors

CONFIGURATIONS AVAILABLE : ITH 01

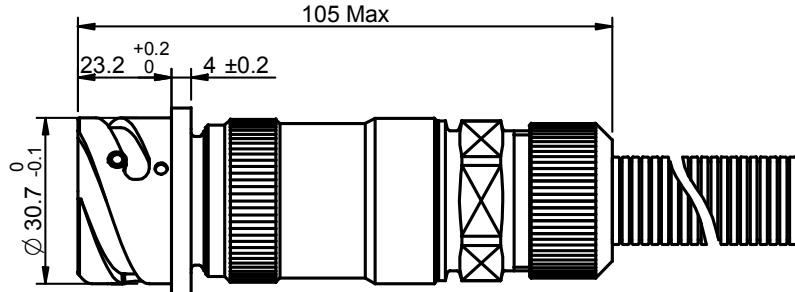
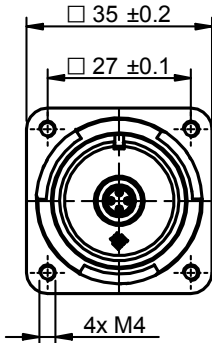
Front View



ITH0118QXX-Y-PHMF6

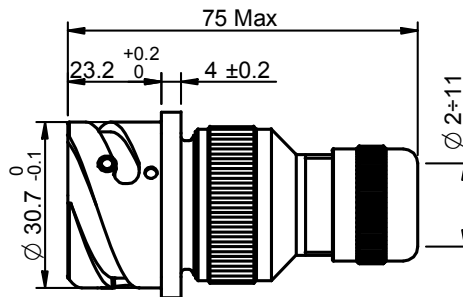
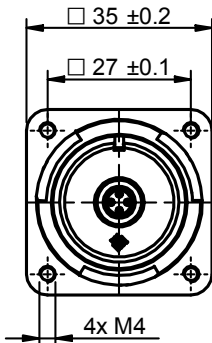
CONFIGURATIONS AVAILABLE : ITH 030

Front View



ITH03018QXX-Y-CRGF6

Front View



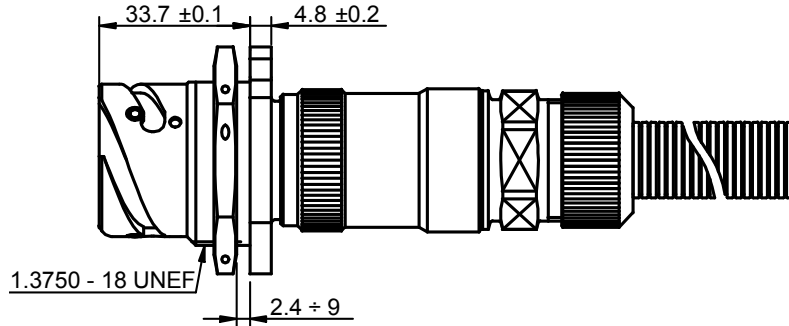
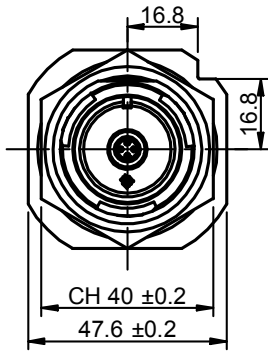
ITH03018QXX-Y-PHMF6

Connectors

# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITH) Quadrax Connector

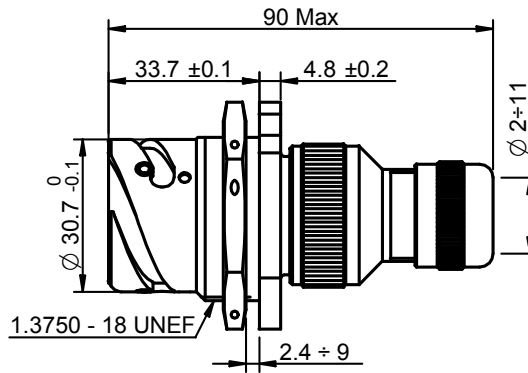
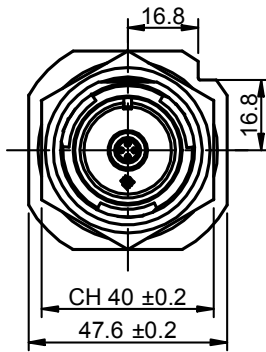
CONFIGURATIONS AVAILABLE : ITH 070

Front View



**ITH07018QXX-Y-CRGF6**

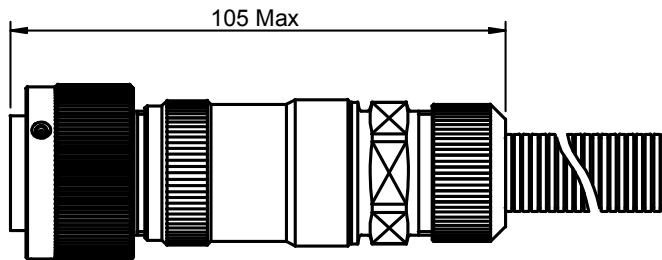
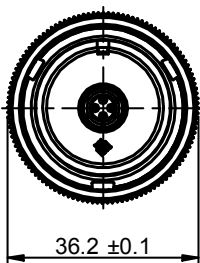
Front View



**ITH07018QXX-Y-PHMF6**

CONFIGURATIONS AVAILABLE : ITH 06

Front View



**ITH0618QXX-Y-CRGF6**



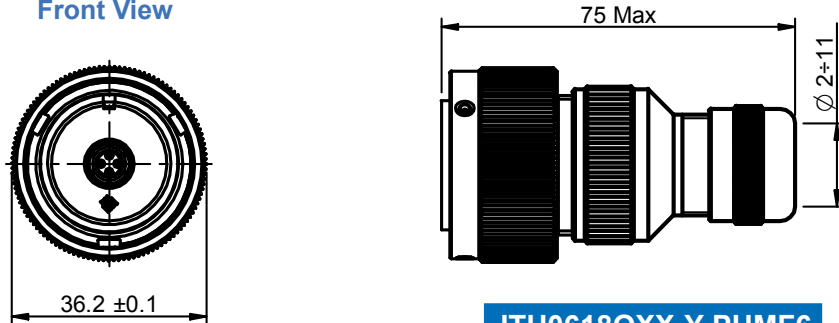
# MIL-DTL-5015 Type Reverse Bayonet Coupling (Series ITH) Quadrx Connector



High-Speed  
Connectors

CONFIGURATIONS AVAILABLE : ITH 06

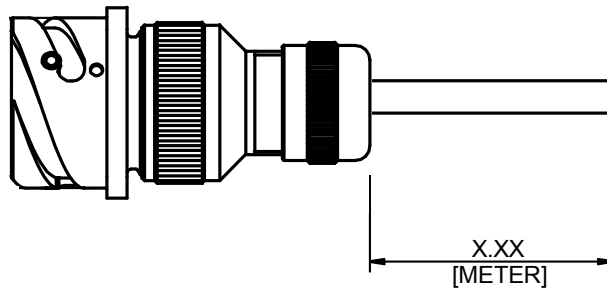
Front View



**ITH0618QXX-Y-PHMF6**

CONFIGURATIONS AVAILABLE : ITH 01

Female with Pigtail for Configuration : 00 - 01 - 030 - 070



EXAMPLE : ITH0018QXX-Y-1.5PHMF6 → 1.5 mt Pigtail

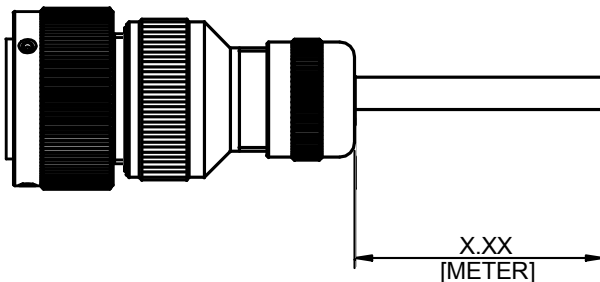
Female with Pigtail for Configuration : 00
ITH0018QXX-Y-Z.zzCRGF6
ITH0018QXX-Y-Z.zzPHMF6

Female with Pigtail for Configuration : 030
ITH03018QXX-Y-Z.zzCRGF6
ITH03018QXX-Y-Z.zzPHMF6

Female with Pigtail for Configuration : 01
ITH0118QXX-Y-Z.zzCRGF6
ITH0118QXX-Y-Z.zzCRGF6

Female with Pigtail for Configuration : 070
ITH07018QXX-Y-Z.zzCRGF6
ITH07018QXX-Y-Z.zzPHMF6

Male with Pigtail for Configuration : 06



Female with Pigtail for Configuration : 06
ITH0618QXX-Y-Z.zzCRGF6
ITH0618QXX -Y-Z.zzPHMF6

EXAMPLE : ITH0618QXX-Y-1.5PHMF6 → 1.5 mt Pigtail

Connectors



# MIL-DTL-26482 Type Reverse Bayonet Coupling (Series IPT) with Single RJ45 Connector

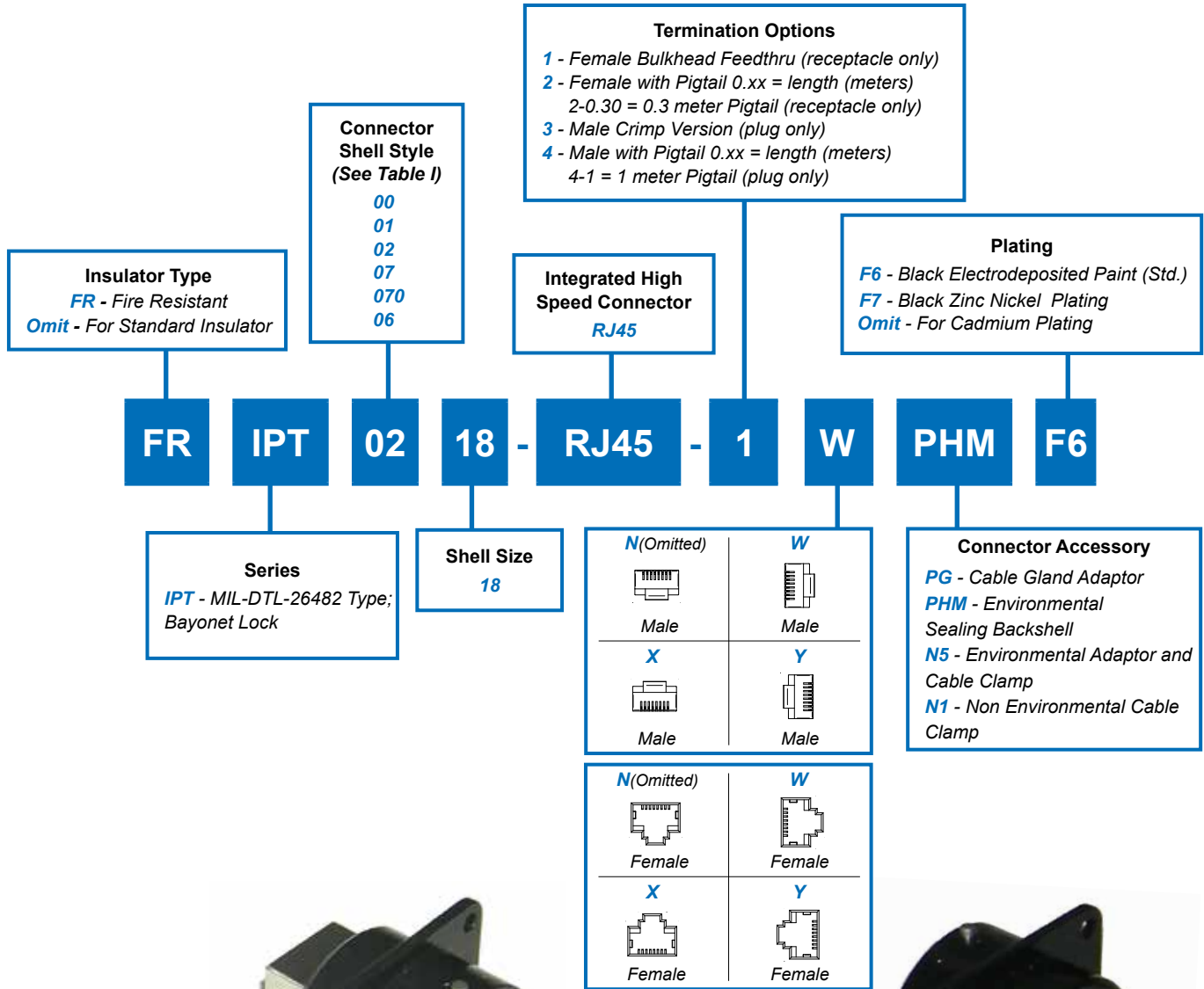


Figure 1  
Receptacle (Front)



Figure 2  
Receptacle (Rear)

# MIL-DTL-26482 Type Reverse Bayonet Coupling (Series IPT) with Single RJ45 Connector



## TABLE I

### Connector Shell Detailed Description

**00** - Front Panel Mount  
Square Flange Receptacle  
with Accessory Threads

**01** - In Line Cylindrical  
Receptacle with Accessory  
Threads

**02** - Front Panel Mount  
Square Flange Receptacle;  
No Accessory Threads

**07** - Rear Panel Mount  
Jam Nut Receptacle; No  
Accessory Threads

**070** - Rear Panel Mount  
Jam Nut Receptacle with  
Accessory Threads

**06** - Straight Cylindrical  
Plug Connector with  
Accessory Threads

Commercial-grade RJ45 connectors are intended for use in clean, dry environments. Exposure to dirt and moisture can lead to damage or failure. Glenair's sealed RJ45 connectors provide a high level of protection for the most hostile environments. Standard RJ45 jacks are housed in rugged, waterproof IPT Series bayonet connectors. Connectors feature resilient nitrile inserts and electrodeposited corrosion-resistant black paint or black zinc nickel plating. Cadmium plating is also available. A typical IPT RJ45 application consists of a through bulkhead female receptacle (Figure 1 and 2) and a male plug crimp RJ45 (Figure 3).

### TECHNICAL CHARACTERISTICS

Category	Cat. 6 (Cat 5E available upon request)
Connection	10BaseT, 100BaseTx, 1000BaseT
Working Voltage	30/42 Volts AC RMS/VDC
Max Current Rating	1.5 Amps at 20° C
Max Contact Resistance	20 mΩ
Min. Insulation Resistance	1.000 mΩ at 500 Volts DC
Dielectric Withstanding Voltage	1000 Volts
Working Temperature	-40° to +68° C
Environmental Rating	IP67 (mated)



**Figure 3**  
Plug (Front)



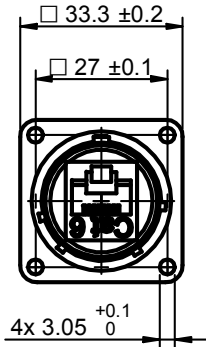
**Figure 4**  
RJ45 Interconnection Sequence



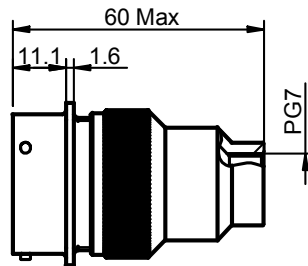
MIL-DTL-26482 Type Reverse Bayonet Coupling (Series IPT) with Single RJ45 Connector

CONFIGURATIONS AVAILABLE : IPT 00

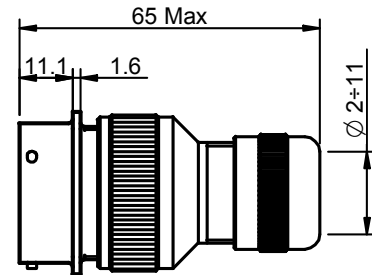
Front View



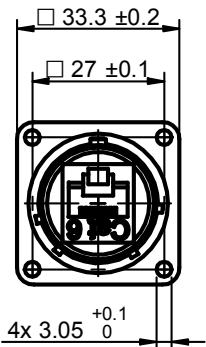
FRIPT0018-RJ45-1PGF6



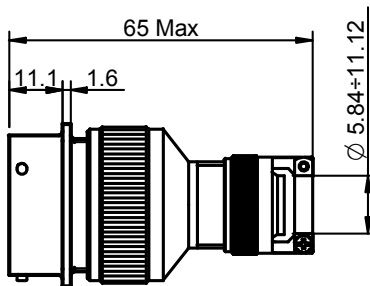
FRIPT0018-RJ45-1PHMF6



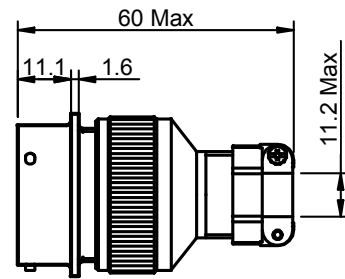
Front View



FRIPT0018-RJ45-1N5F6

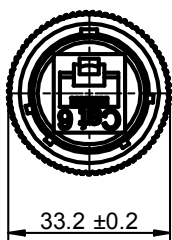


FRIPT0018-RJ45-1N1F6

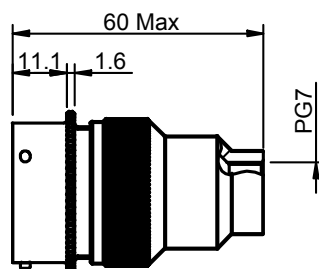


CONFIGURATIONS AVAILABLE : IPT 01

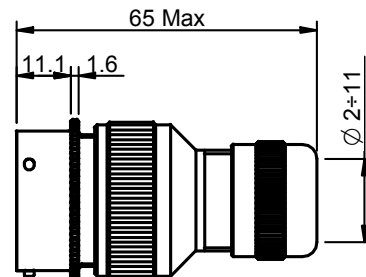
Front View



FRIPT0118-RJ45-1PGF6



FRIPT0118-RJ45-1PHMF6



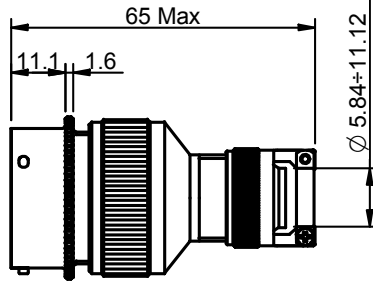
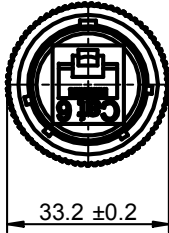
MIL-DTL-26482 Type Reverse Bayonet Coupling  
(Series IPT)  
with Single RJ45 Connector



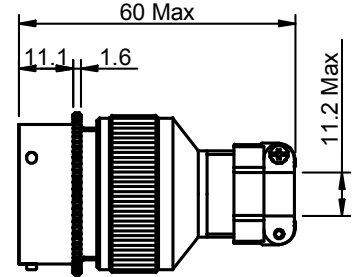
High-Speed  
Connectors

CONFIGURATIONS AVAILABLE : IPT 01

Front View



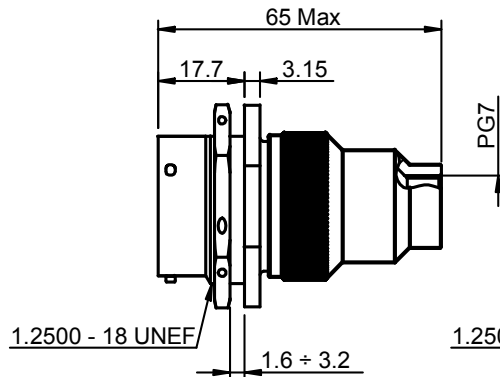
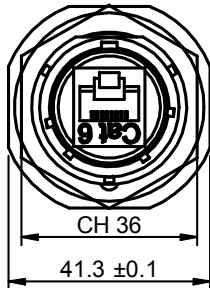
FRIPT0118-RJ45-1N5F6



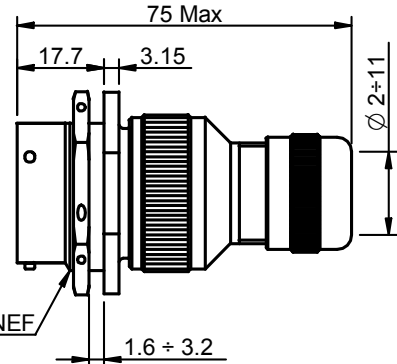
FRIPT0118-RJ45-1N1F6

CONFIGURATIONS AVAILABLE : IPT 070

Front View

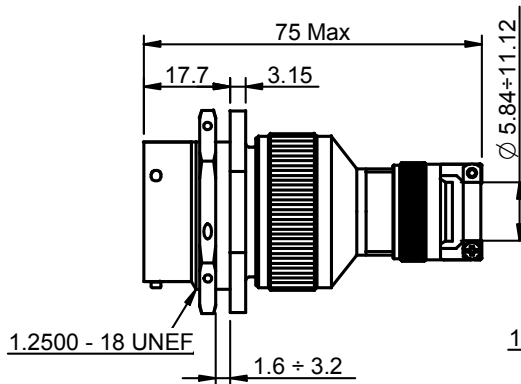
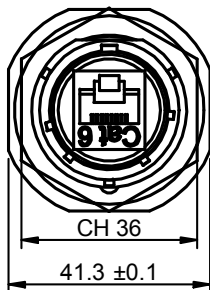


FRIPT07018-RJ45-1PGF6

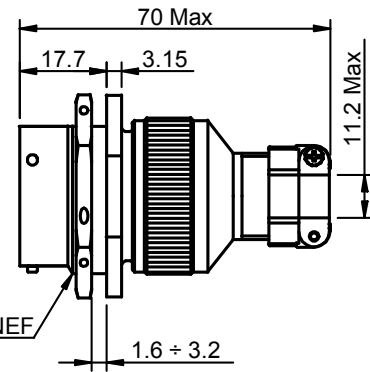


FRIPT07018-RJ45-1PHMF6

Front View



FRIPT07018-RJ45-1N5F6



FRIPT07018-RJ45-1N1F6

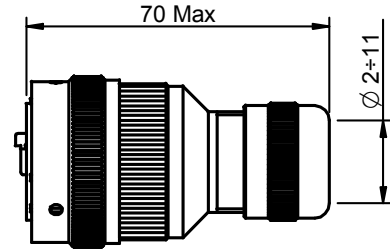
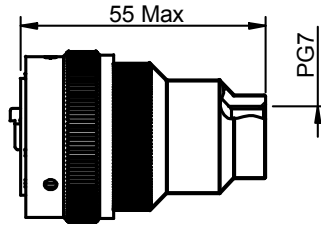
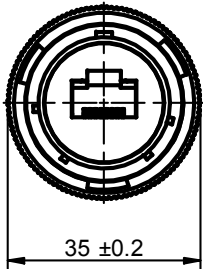
Connectors



MIL-DTL-26482 Type Reverse Bayonet Coupling (Series IPT) with Single RJ45 Connector

CONFIGURATIONS AVAILABLE : IPT 06

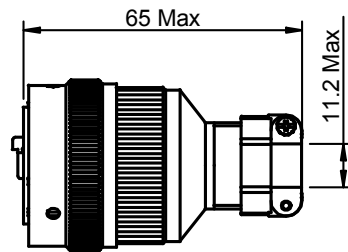
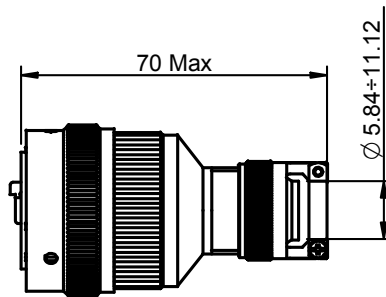
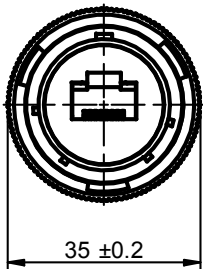
Front View



FRIPT0618-RJ45-3PGF6

FRIPT0618-RJ45-3PHMF6

Front View



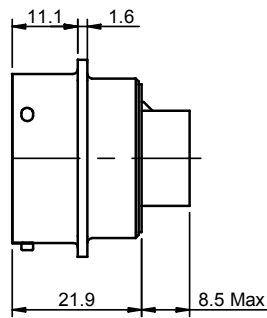
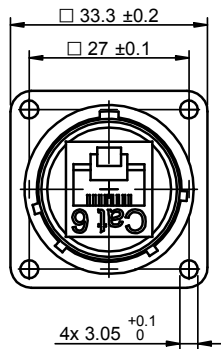
FRIPT0618-RJ45-3N5F6

FRIPT0618-RJ45-3N1F6

CONFIGURATIONS AVAILABLE : IPT 02 and IPT 07

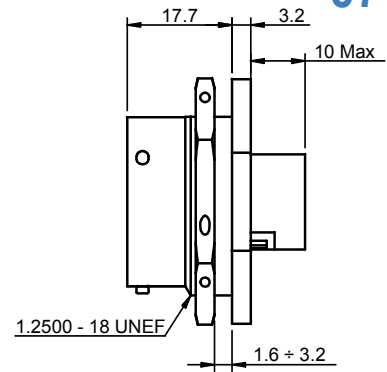
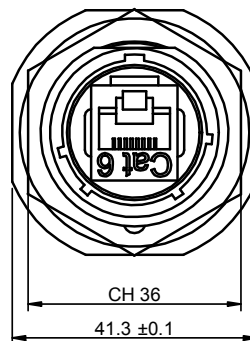
02

Front View



FRIPT0218-RJ45-1F6

Front View



FRIPT0718-RJ45-1F6

07

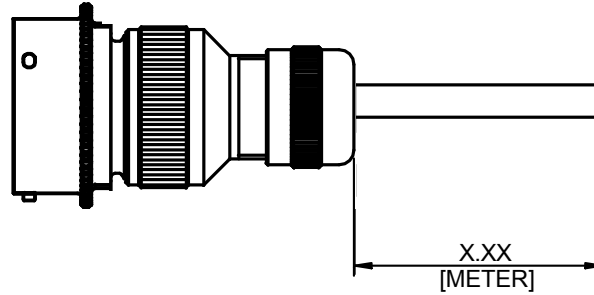


# MIL-DTL-26482 Type Reverse Bayonet Coupling (Series IPT) with Single RJ45 Connector



PIGTAIL GENERAL SKETCHES AND CONFIGURATIONS AVAILABLE

## Female with Pigtail for Configuration : 00 - 01 - 030 - 070



EXAMPLE : FRIPT0018-RJ45-21.5PHMF6 → 1.5 mt Pigtail

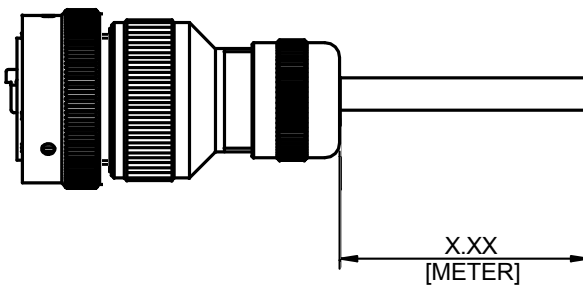
Female with Pigtail for Configuration : 00
FRIPT0018-RJ45-2X.xxN1F6
FRIPT0018-RJ45-2X.xxN5F6
FRIPT0018-RJ45- 2X.xxPHMF6
FRIPT0018-RJ45-2X.xxPGF6

Female with Pigtail for Configuration : 030
FRIPT03018-RJ45-2X.xxN1F6
FRIPT03018-RJ45-2X.xxN5F6
FRIPT3018-RJ45-2X.xxPHMF6
FRIPT03018-RJ45-2X.xxPGF6

Female with Pigtail for Configuration : 01
FRIPT0118-RJ45-2X.xxN1F6
FRIPT0118-RJ45-2X.xxN5F6
FRIPT0118-RJ45-2X.xxPHMF6
FRIPT0118-RJ45-2X.xxPGF6

Female with Pigtail for Configuration : 070
FRIPT07018-RJ45-2X.xxN1F6
FRIPT07018-RJ45-2X.xxN5F6
FRIPT07018-RJ45-2X.xxPHMF6
FRIPT07018-RJ45-2X.xxPGF6

## Male with Pigtail for Configuration : 06

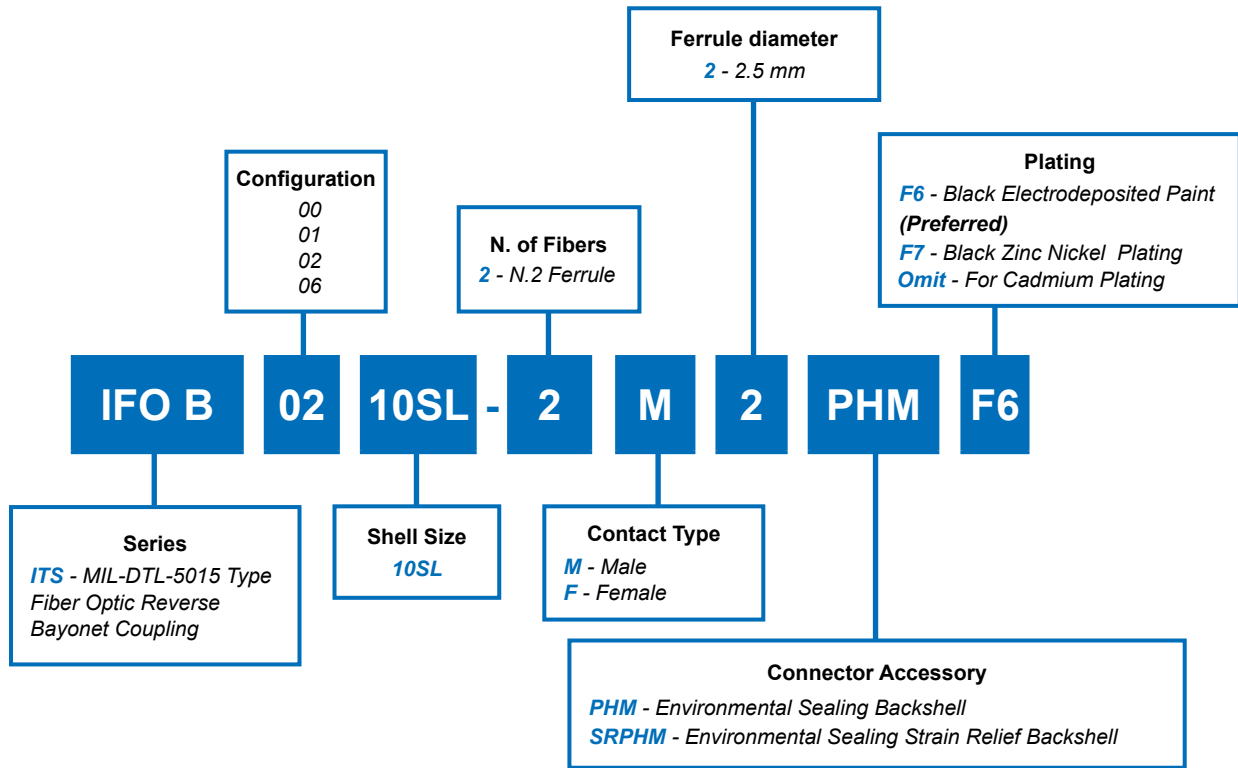


Female with Pigtail for Configuration : 06
FRIPT0618-RJ45-4X.xxN1F6
FRIPT0618-RJ45-4X.xxN5F6
FRIPT0618-RJ45-4X.xxPHMF6
FRIPT0618-RJ45-4X.xxPGF6

EXAMPLE : FRIPT0618-RJ45-41.5PHMF6 → 1.5 mt Pigtail



MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
2 Pole Fiber Optic Connector



# MIL-DTL-5015 and VG95234 Type (Series IFO) 2 Pole Fiber Optic Connector



- MIL-DTL-5015 and VG95234 Size 10SL.
- PHM Backshells for jacketed cables.
- SR PHM Strain Relief Backshells for jacketed cables.
- Metal cover for fiber protection.
- Long Backshell for fiber bending prevention.

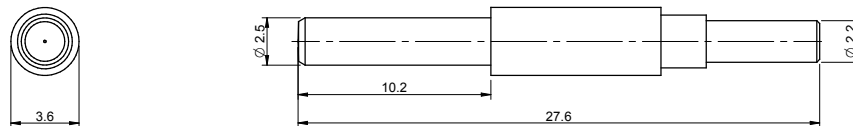
CONNECTOR TECHNICAL CHARACTERISTICS	
Connection	Fiber Optic
Fiber Type	9/125 - 50/125 - 62/125
Insertion Loss [DB]	≤ 1.4 dB
Working Temperature	-25° to +85° C
Flammability	UL94-V0
Insert	Termoplastic Resin
Metallic Parts	Aluminium Alloy; Black Electrodeposited Paint *
Mating Cycles	500 Cycles
Environmental Rating	IP67 (mated)
Gaskets and Bushings	Polychloroprene and Silicone Rubber

\* RoHS compliant

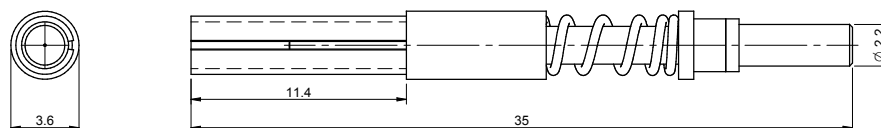
## Optical Contacts

OPTICAL CONTACT TECHNICAL CHARACTERISTICS	
Optical Contacts	Zirconia Ferrules
	Stainless Steel Springs
	Zirconia split sleeves
Ferrule Diameter	2.5 mm

Male Contact

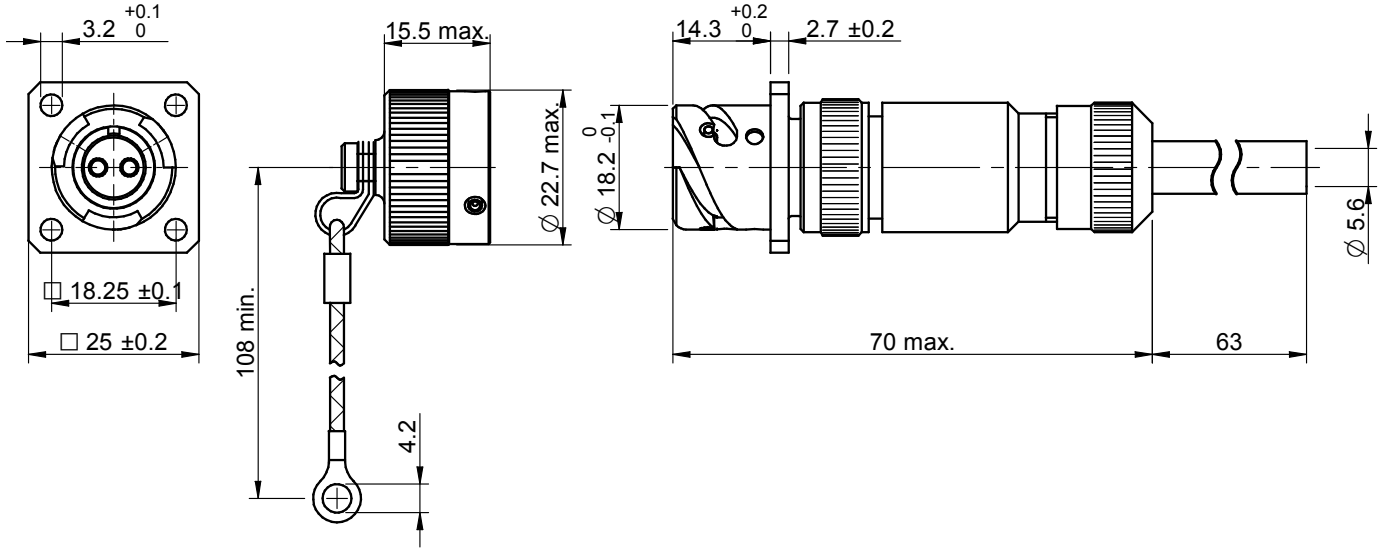


Female Contact



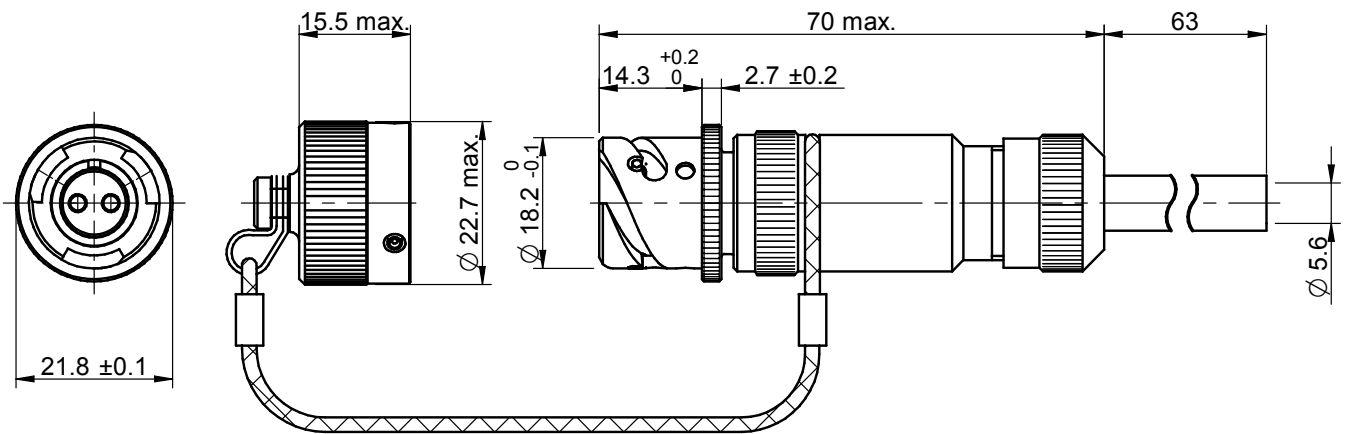
MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
2 Pole Fiber Optic Connector

Front View



IFOB0010SL-2...2PHMF6

Front View

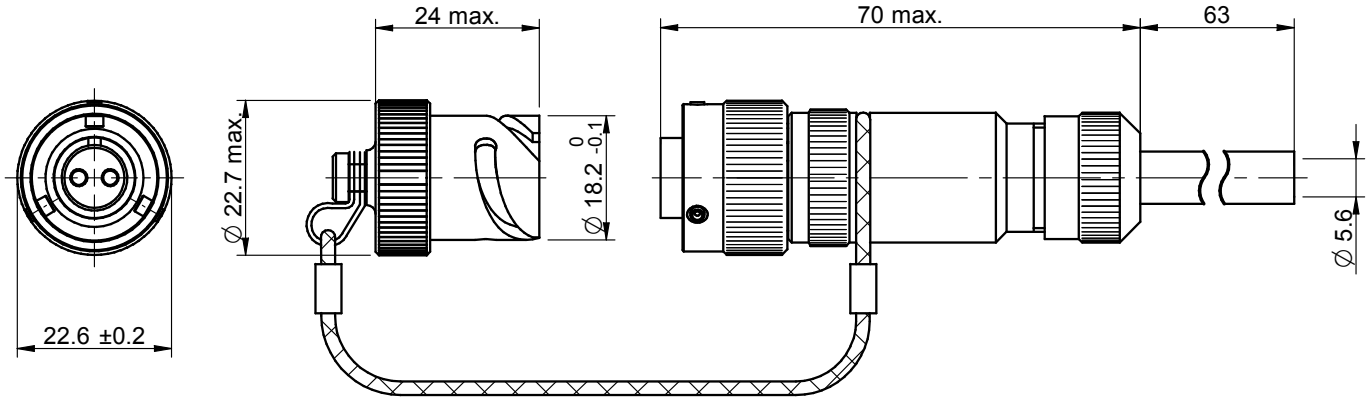


IFOB0110SL-2...2PHMF6

MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
2 Pole Fiber Optic Connector

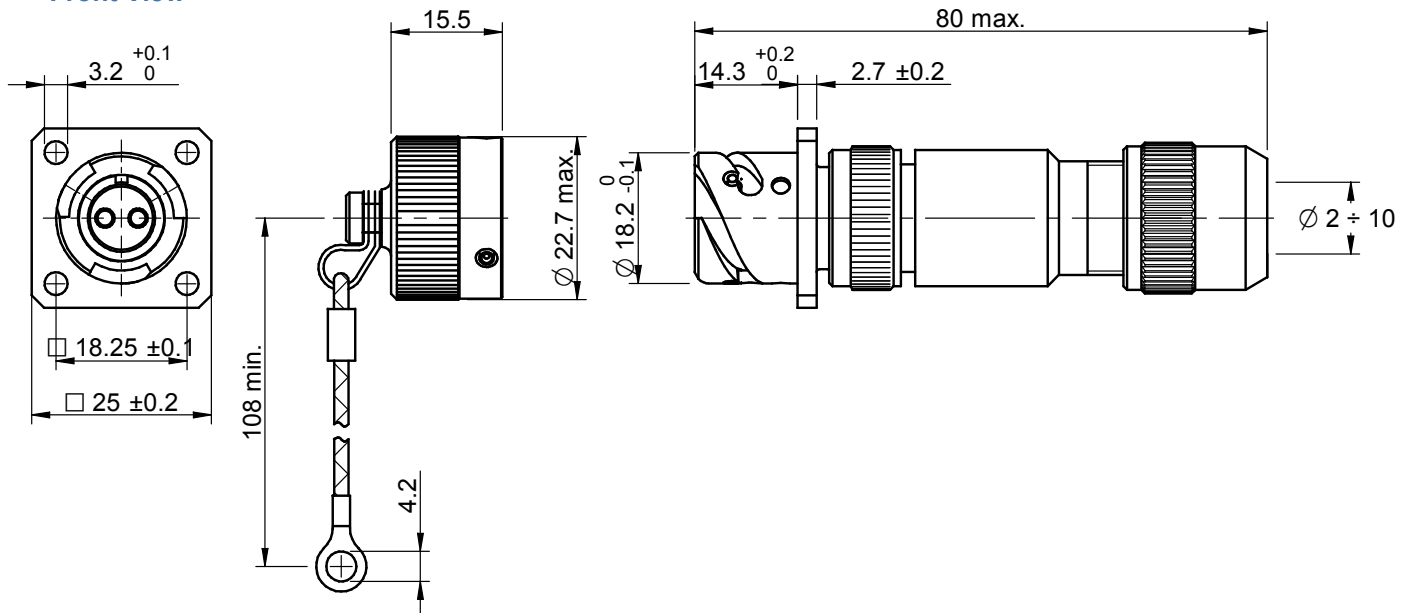


Front View



IFOB0610SL-2...2PHMF6

Front View

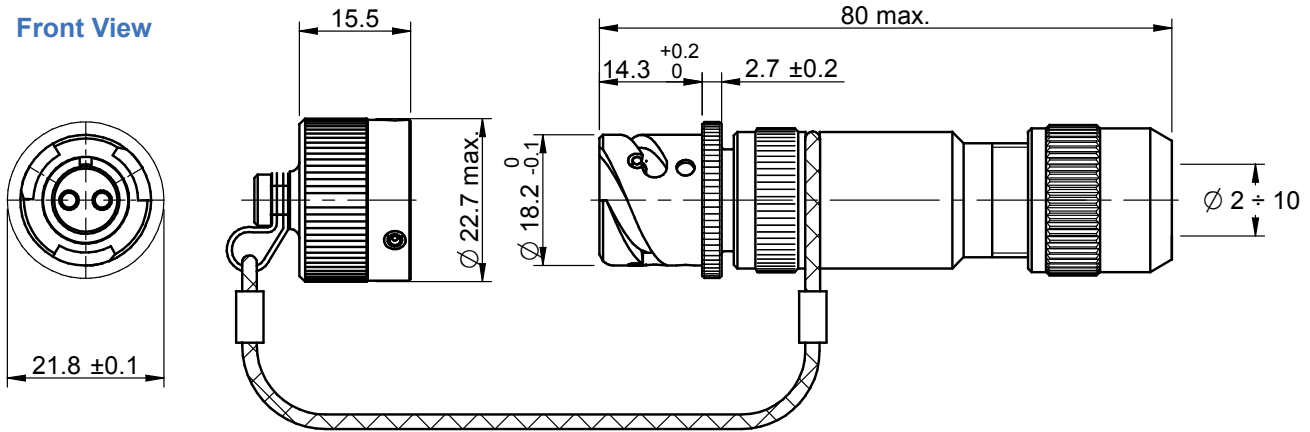


IFOB0010SL-2...2SRPHMF6



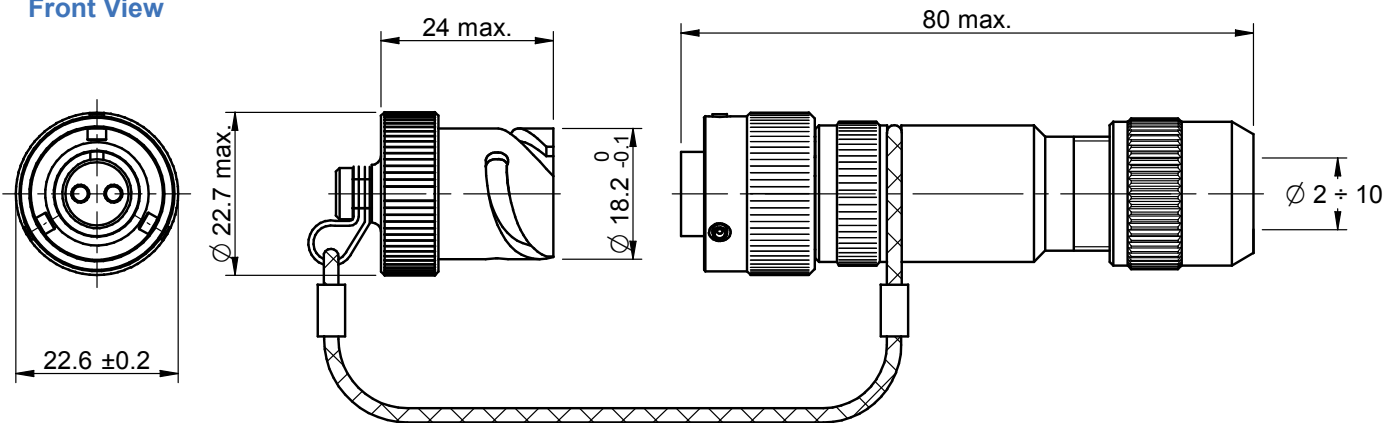
MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
2 Pole Fiber Optic Connector

Front View



**IFOB0110SL-2...2SRPHMF6**

Front View



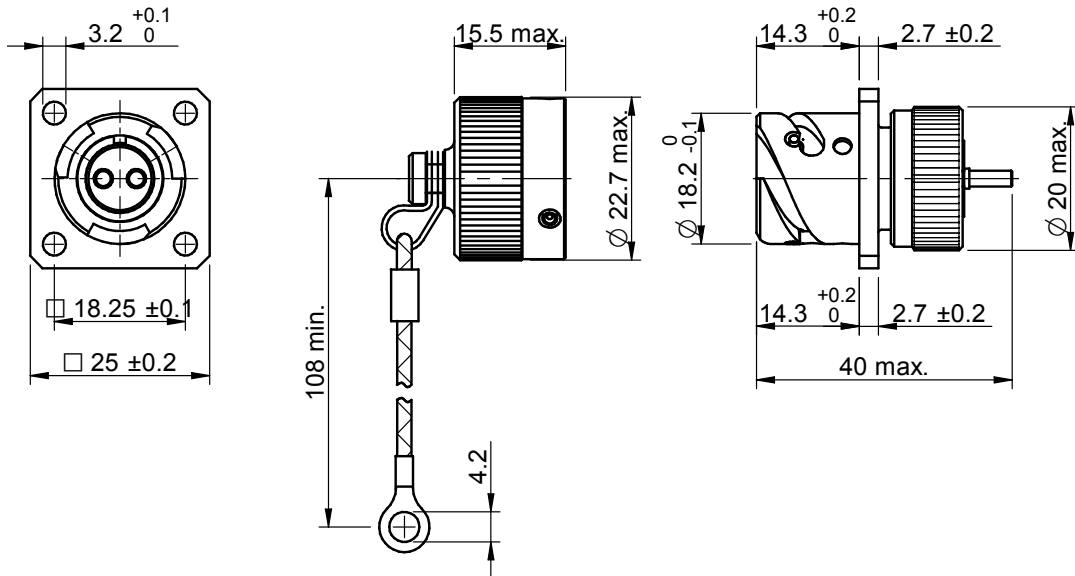
**IFOB0610SL-2...2SRPHMF6**



MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
2 Pole Fiber Optic Connector



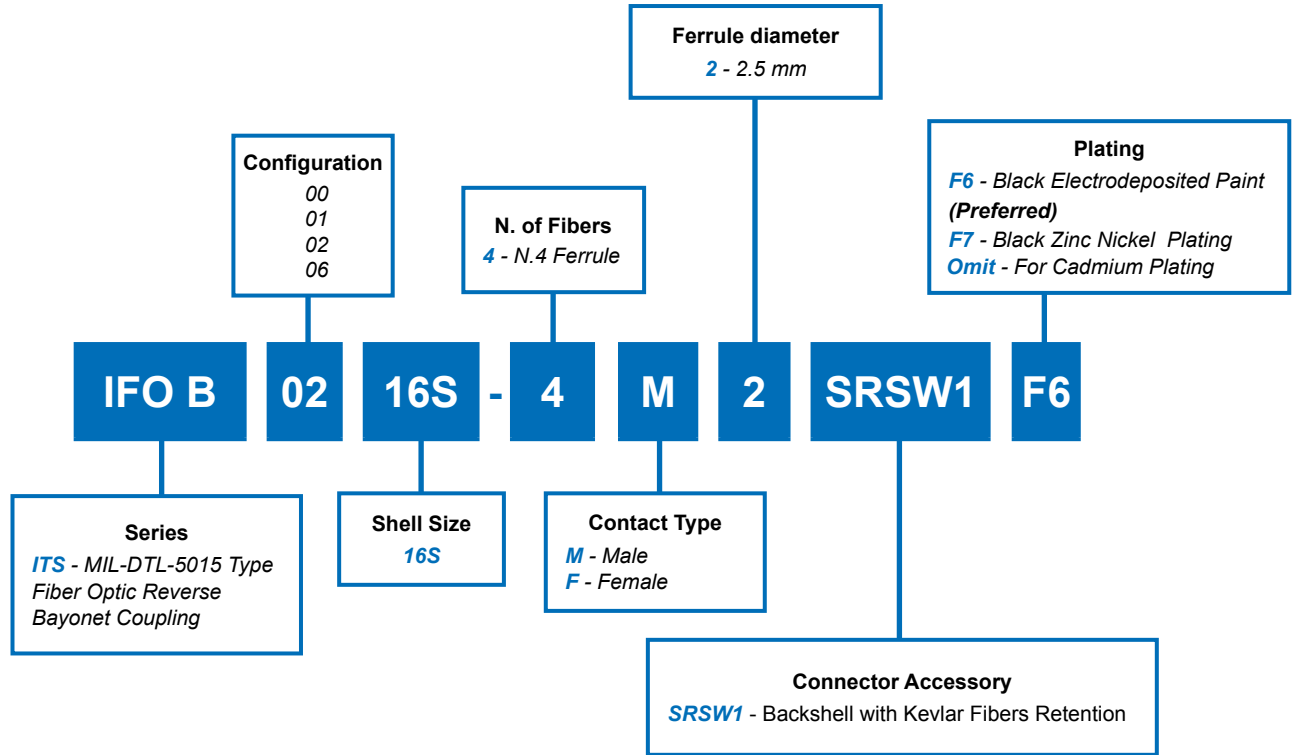
Front View



IFOB0210SL-2...2F6



MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
4 Pole Fiber Optic Connector



# MIL-DTL-5015 and VG95234 Type (Series IFO) 4 Pole Fiber Optic Connector



- MIL-DTL-5015 and VG95234 Size 16S.
- SRSW1 Strain Relief Backshells for jacketed cables.
- Metal cover for fiber protection.
- Long Backshell for fiber bending prevention.

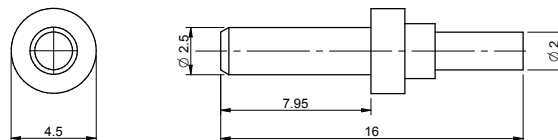
CONNECTOR TECHNICAL CHARACTERISTICS	
Connection	Fiber Optics
Fiber Type	9/125 - 50/125 - 62/125
Insertion Loss [DB]	≤ 1.4 dB
Working Temperature	-25° to +85° C
Flammability	UL94-V0
Insert	Termoplastic Resin
Metallic Parts	Aluminium Alloy; Black Electrodeposited Paint *
Mating Cycles	500 Cycles
Environmental Rating	IP67 (mated)
Gaskets and Bushings	Polychloroprene and Silicone Rubber

\* RoHS compliant

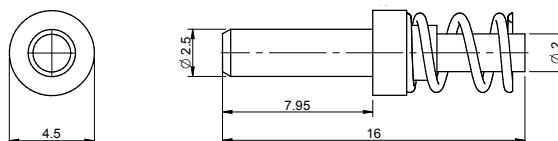
## Optical Contacts

OPTICAL CONTACT TECHNICAL CHARACTERISTICS	
Optical Contacts	Zirconia Ferrules
	Stainless Steel Springs
	Zirconia split sleeves
Ferrule Diameter	2.5 mm

Male Contact



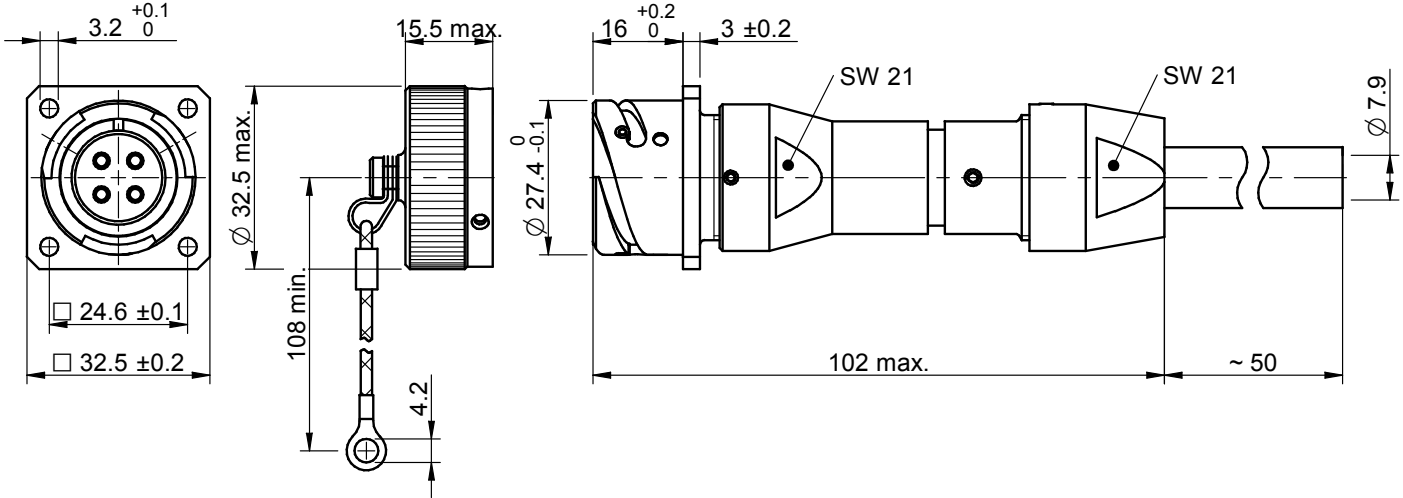
Female Contact





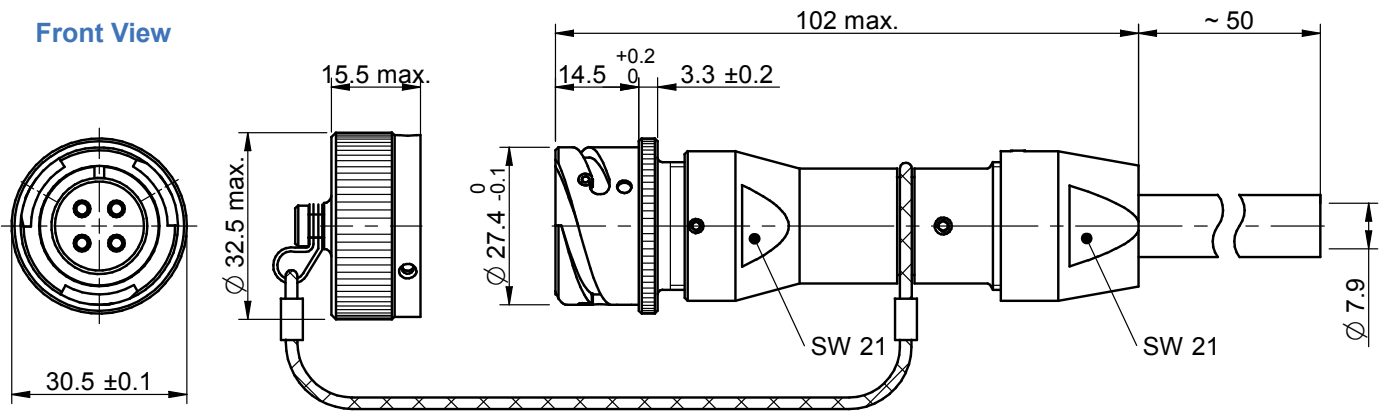
MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
4 Pole Fiber Optic Connector

Front View



IFOB0016S-4...2RSW1F6

Front View

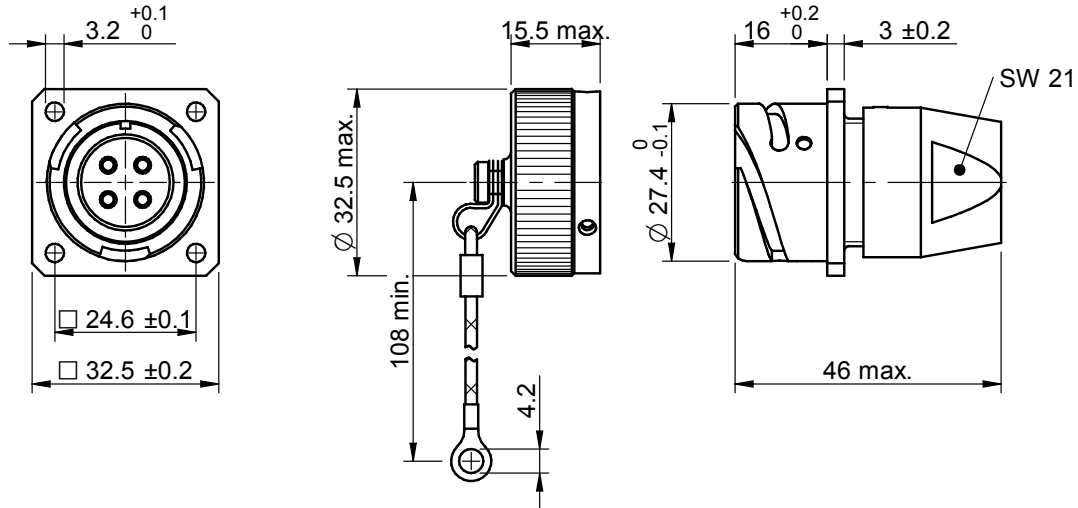


IFOB0116S-4...2RSW1F6

MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
4 Pole Fiber Optic Connector

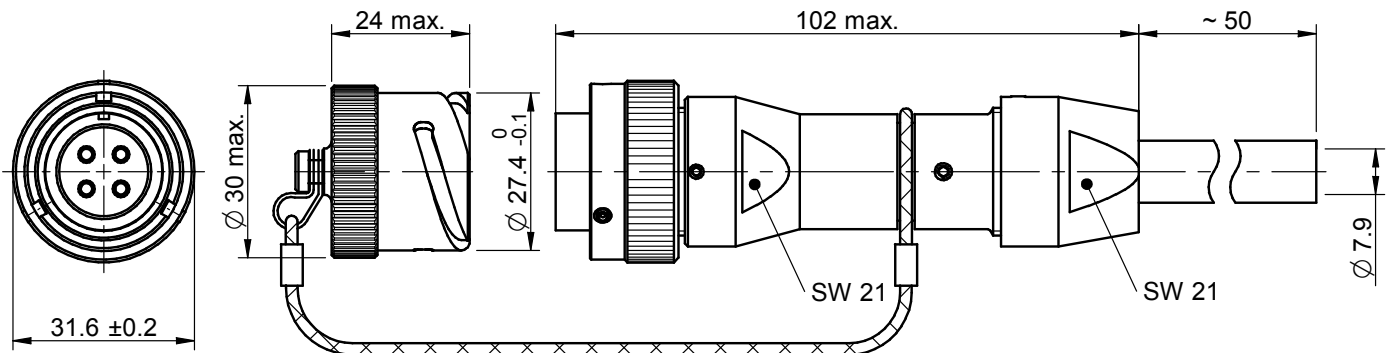


Front View



IFOB0216S-4...2SRSW1F6

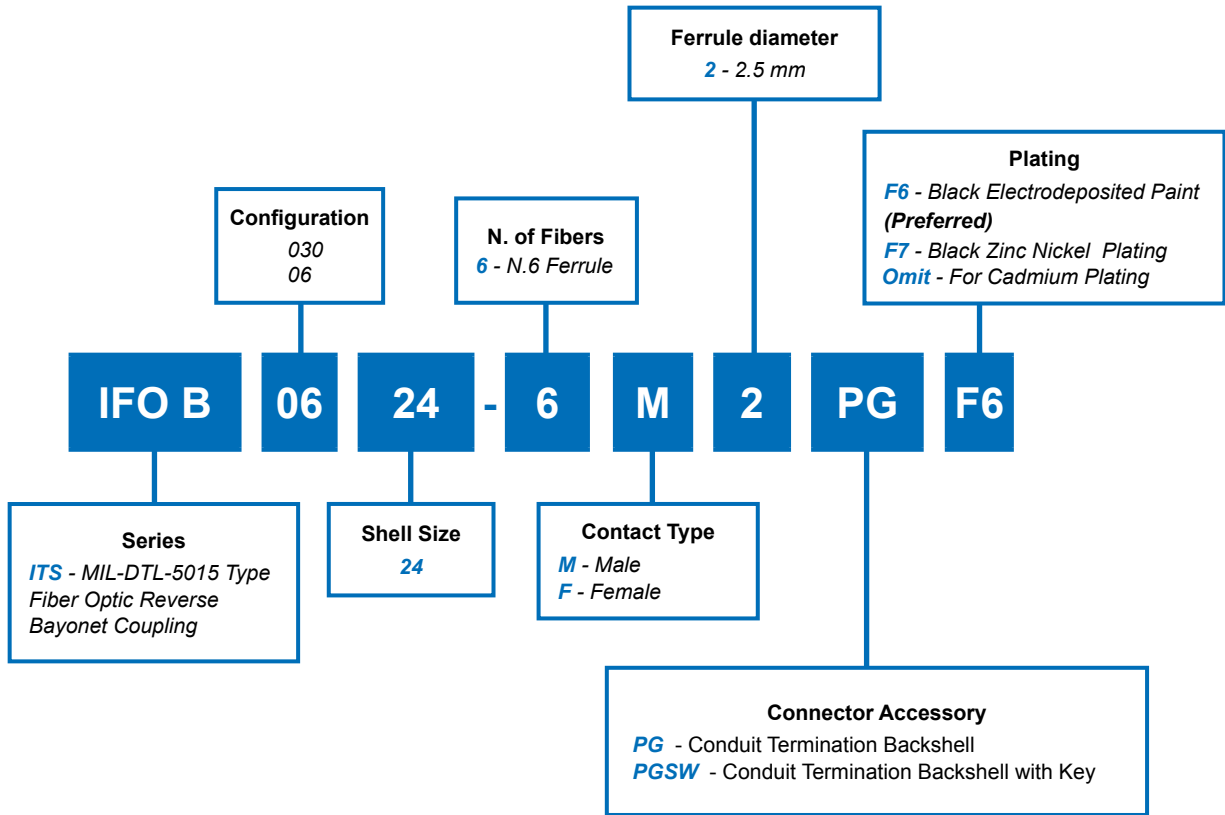
Front View



IFOB0616S-4...2SRSW1F6



MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
6 Pole Fiber Optic Connector



# MIL-DTL-5015 and VG95234 Type (Series IFO) 6 Pole Fiber Optic Connector



- MIL-DTL-5015 and VG95234 Size 24.
- PG Backshells for conduit termination.
- PGSW Strain Relief Backshells for jacketed cables.
- Metal cover for fiber protection.
- Long Backshell for fiber bending prevention.

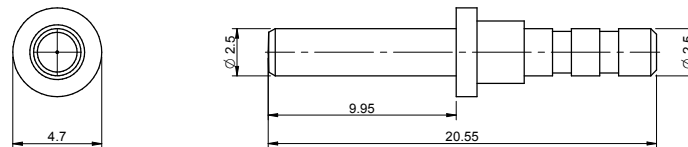
CONNECTOR TECHNICAL CHARACTERISTICS	
Connection	Fiber Optic
Fiber Type	9/125 - 50/125 - 62/125
Insertion Loss [DB]	≤ 1.4 dB
Working Temperature	-25° to +85° C
Flammability	UL94-V0
Insert	Termoplastic Resin
Metallic Parts	Aluminium Alloy; Black Electrodeposited Paint *
Mating Cycles	500 Cycles
Environmental Rating	IP67 (mated)
Gaskets and Bushings	Polychloroprene and Silicone Rubber

\* RoHS compliant

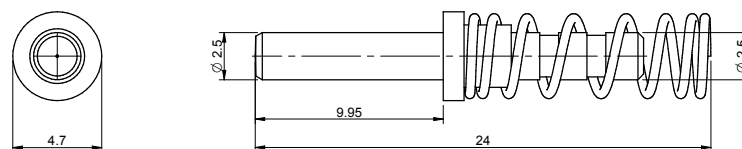
## Optical Contacts

OPTICAL CONTACT TECHNICAL CHARACTERISTICS	
Optical Contacts	Zirconia Ferrules
	Stainless Steel Springs
	Zirconia split sleeves
Ferrule Diameter	2.5 mm

Male Contact



Female Contact

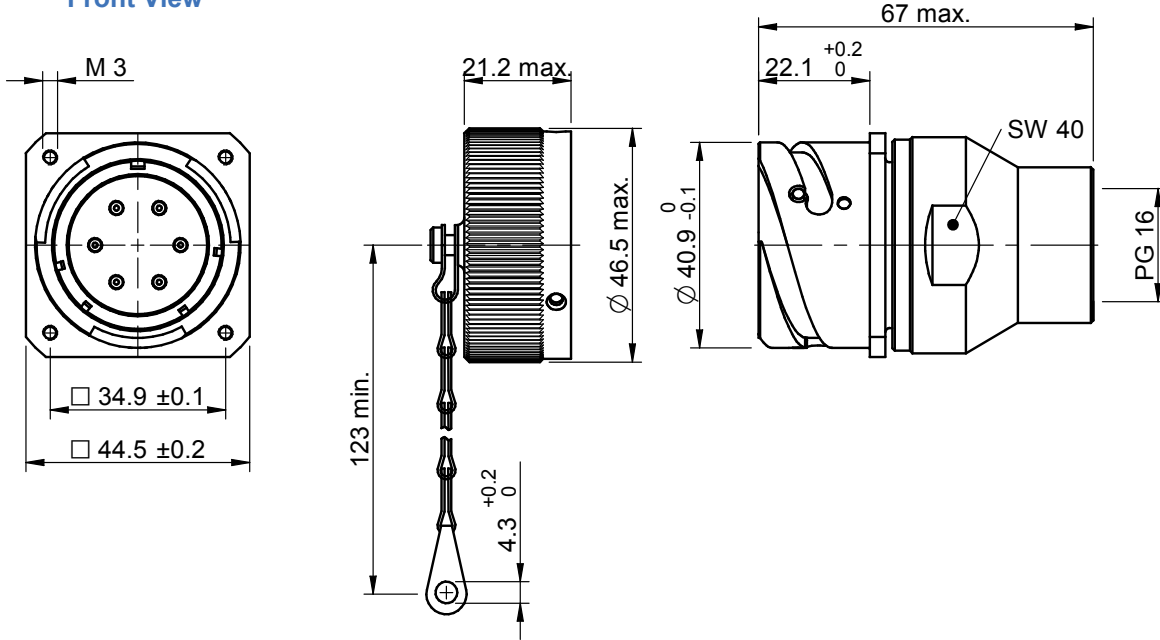






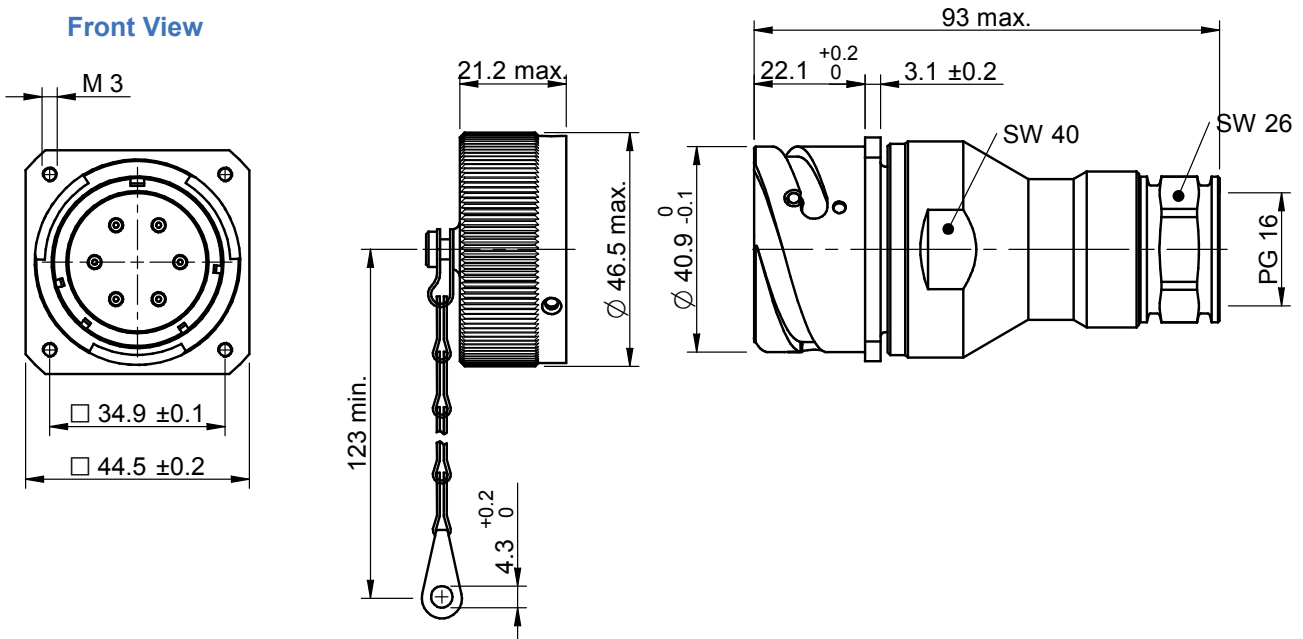
MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
6 Pole Fiber Optic Connector

Front View



IFOB03024-6...2PGF6

Front View

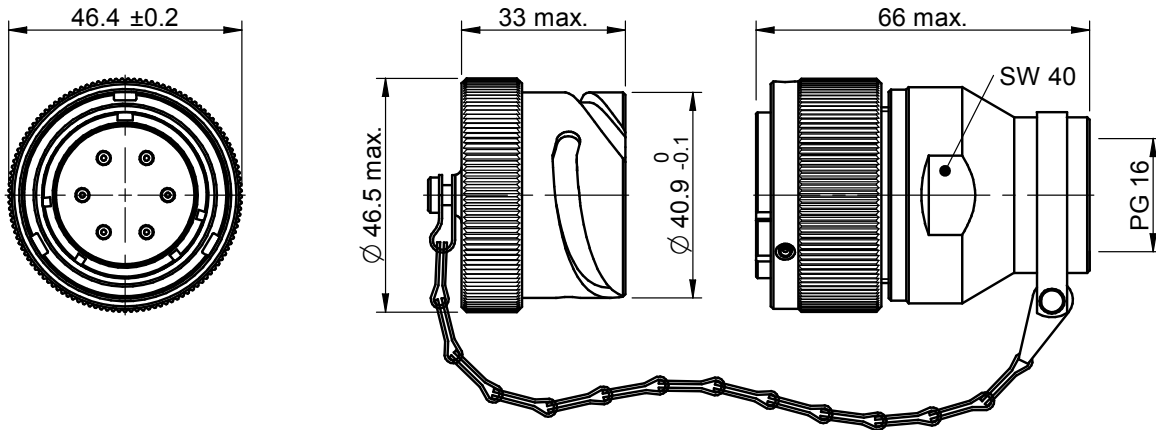


IFOB03024-6...2PGSWF6

MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
6 Pole Fiber Optic Connector

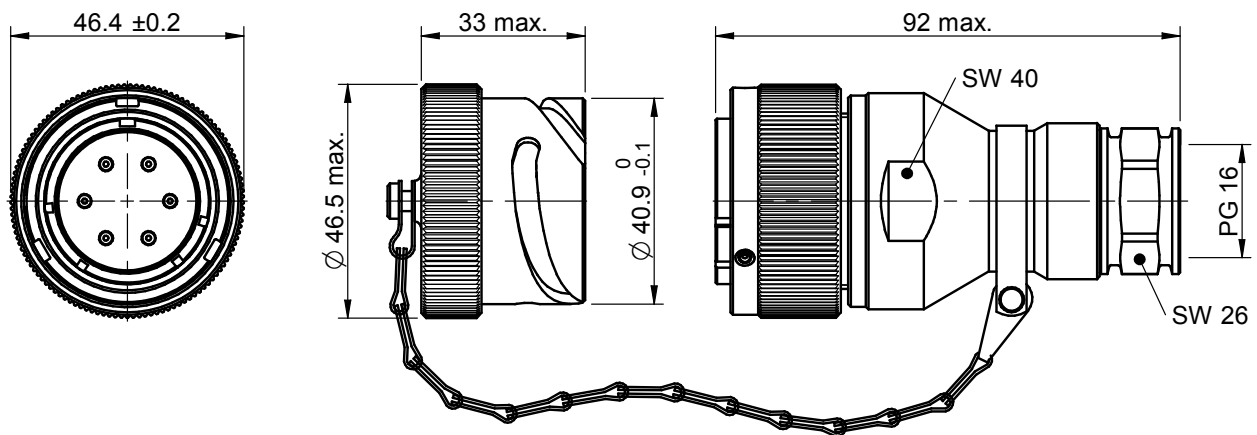


Front View



**IFOB0624-6...2PGF6**

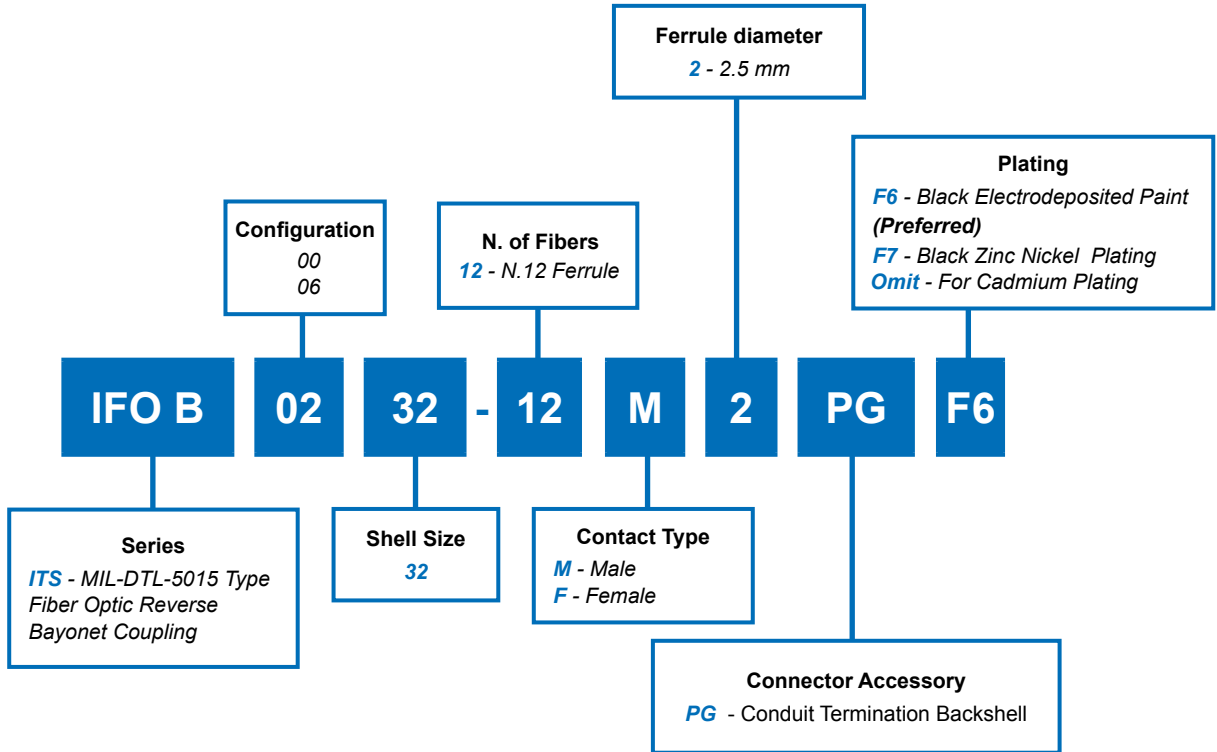
Front View



**IFOB0624-6...2PGSWF6**



MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
12 Pole Fiber Optic Connector



# MIL-DTL-5015 and VG95234 Type (Series IFO) 12 Pole Fiber Optic Connector



MIL-DTL-5015 and VG95234 Size 32.  
PG Backshells for conduit termination.  
Metal cover for fibers protection.  
Long Backshell for fiber bending prevention.

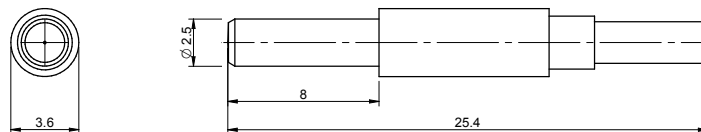
CONNECTOR TECHNICAL CHARACTERISTICS	
Connection	Fiber Optic
Fiber Type	9/125 - 50/125 - 62/125
Insertion Loss [DB]	≤ 1.4 dB
Working Temperature	-25° to +85° C
Flammability	UL94-V0
Insert	Termoplastic Resin
Metallic Parts	Aluminium Alloy; Black Electrodeposited Paint *
Mating Cycles	500 Cycles
Environmental Rating	IP67 (mated)
Gaskets and Bushings	Polychloroprene and Silicone Rubber

\* RoHS compliant

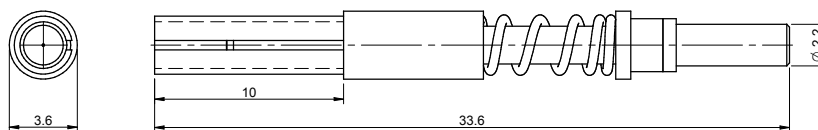
## Optical Contacts

OPTICAL CONTACT TECHNICAL CHARACTERISTICS	
Optical Contacts	Zirconia Ferrules
	Stainless Steel Springs
	Zirconia split sleeves
Ferrule Diameter	2.5 mm

Male Contact

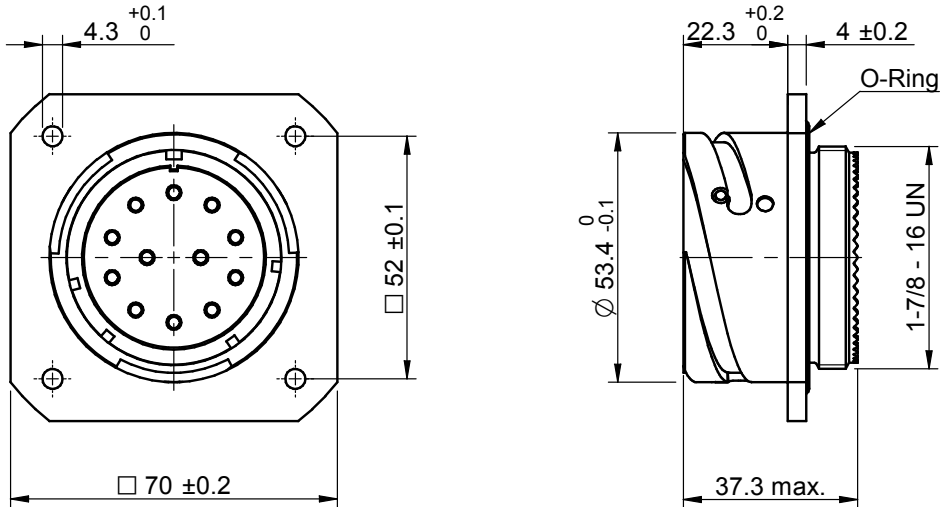


Female Contact



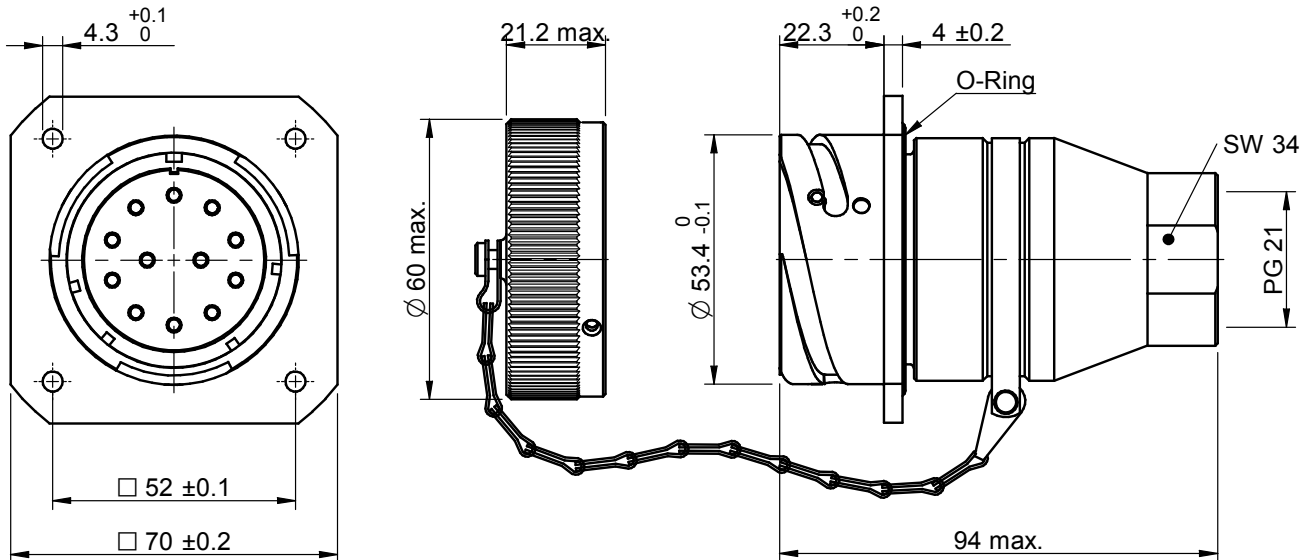
MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
12 Pole Fiber Optic Connector

Front View



IFOB0032-12...2F6

Front View

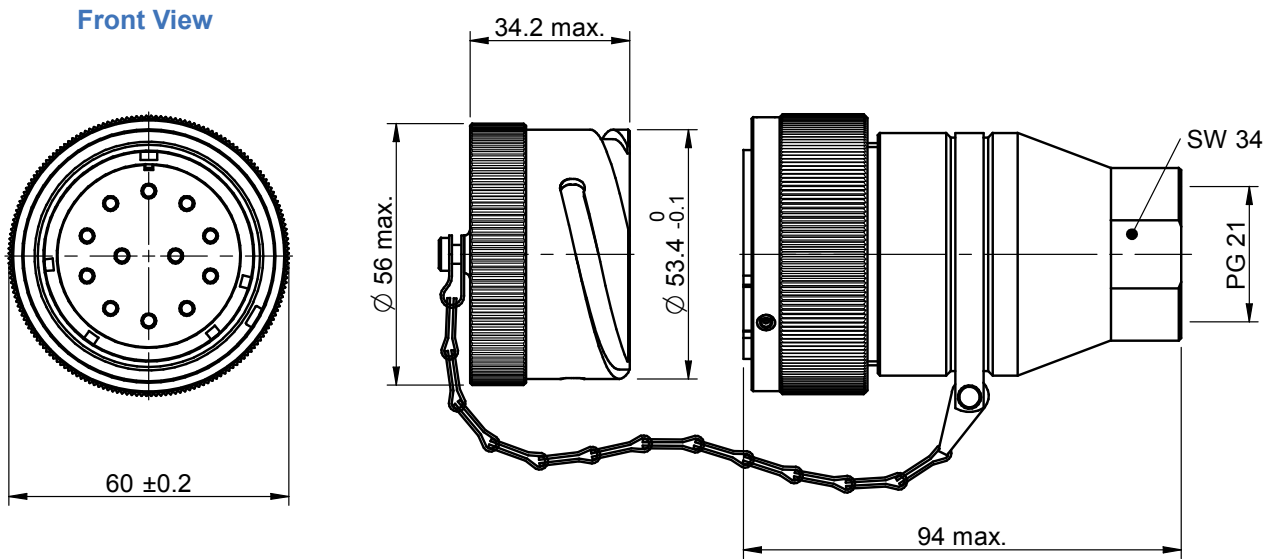


IFOB0032-12...2PGF6

MIL-DTL-5015 and VG95234 Type  
(Series IFO)  
12 Pole Fiber Optic Connector



High-Speed  
Connectors



IFOB0632-12...2PGF6

Connectors

# Available Backshell Options

Cable Clamp  
**N1**



The Glenair N1 cable clamp provides a simple and effective strain relief option for all high speed data transmission connectors. Low profile saddle clamps purchase the cable just aft of the accessory threads for an unobtrusive and compact strain-relief solution. May be used in conjunction with a wide range of standard backshell accessories.



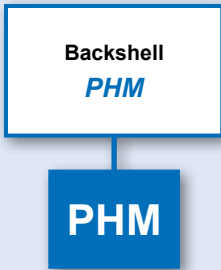
Backshell  
**N5**



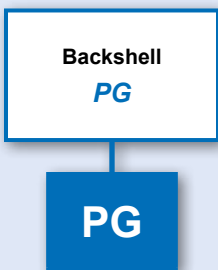
The Glenair N5 backshell offers users the benefits of an environmental sealing backshell combined with a style "C" cable clamp.







The Glenair PHM backshell utilizes a non-environmental compression bushing that provides ample strain relief for general duty applications.



The Glenair PG cable gland backshell provides basic environmental protection and strain relief for use with straight plugs.



Assembly Option Table

Connector	Shell Style	 PG	 PHM	 N5	 N1
ITS With Single RJ45	00	FRITS0020-RJ45-1PGF6	FRITS0020-RJ45-1PHMF6	FRITS0020-RJ45-1N5F6	FRITS0020-RJ45-1N1F6
	01	FRITS0120-RJ45-1PGF6	FRITS0120-RJ45-1PHMF6	FRITS0120-RJ45-1N5F6	FRITS0120-RJ45-1N1F6
	030	FRITS03020-RJ45-1PGF6	FRITS03020-RJ45-1PHMF6	FRITS03020-RJ45-1N5F6	FRITS03020-RJ45-1N1F6
	070	FRITS07020-RJ45-1PGF6	FRITS07020-RJ45-1PHMF6	FRITS07020-RJ45-1N5F6	FRITS07020-RJ45-1N1F6
	06	FRITS0620-RJ45-3PGF6	FRITS0620-RJ45-3PHMF6	FRITS0620-RJ45-1N5F6	FRITS0620-RJ45-3N1F6
	02	FRITS0220-RJ45-1F6			
	03	<i>No Accessory Threads.</i> FRITS0320-RJ45-1F6			
	07	FRITS0720-RJ45-1F6			
ITS With Two RJ45s	00	FRITS0032-2RJ45-1PGF6	N/A	N/A	FRITS0032-2RJ45-1N1F6
	01	FRITS0132-2RJ45-1PGF6	N/A	N/A	FRITS0132-2RJ45-1N1F6
	030	FRITS03032-2RJ45-1PGF6	N/A	N/A	FRITS03032-2RJ45-1N1F6
	070	FRITS07032-2RJ45-1PGF6	N/A	N/A	FRITS07032-2RJ45-1N1F6
	06	FRITS0632-2RJ45-1PGF6	N/A	N/A	FRITS0632-2RJ45-1N1F6
	02	FRITS0232-2RJ45-1F6			
	03	<i>No Accessory Threads.</i> FRITS0332-2RJ45-1F6			
	07	FRITS0732-2RJ45-1F6			
ITS With USB-A	00	FRITS0018-USBA-1PGF6	FRITS0018-USBA-1PHMF6	FRITS0018-USBA-1N5F6	FRITS0018-USBA-1N1F6
	01	FRITS0118-USBA-1PGF6	FRITS0118-USBA-1PHMF6	FRITS0118-USBA-1N5F6	FRITS0118-USBA-1N1F6
	030	FRITS03018-USBA-1PGF6	FRITS03018-USBA-1PHMF6	FRITS03018-USBA-1N5F6	FRITS03018-USBA-1N1F6
	070	FRITS07018-USBA-1PGF6	FRITS07018-USBA-1PHMF6	FRITS07018-USBA-1N5F6	FRITS07018-USBA-1N1F6
	06	FRITS0618-USBA-1PGF6	FRITS0618-USBA-1PHMF6	FRITS0618-USBA-3N5F6	FRITS0618-USBA-3N1F6
	02	FRITS0218-USBA-1F6			
	03	<i>No Accessory Threads.</i> FRITS0318-USBA-1F6			
	07	FRITS0718-USBA-1F6			

# Available Backshell Assemblies



High-Speed Connectors

Assembly Option Table

Connector	Shell Style	 PG	 PHM	 N5	 N1
ITS With USB-B	00	FRITS0018-USBB-1PGF6	FRITS0018-USBB-1PHMF6	FRITS0018-USBB-1N5F6	FRITS0018-USBB-1N1F6
	01	FRITS0118-USBB-1PGF6	FRITS0118-USBB-1PHMF6	FRITS0118-USBB-1N5F6	FRITS0118-USBB-1N1F6
	030	FRITS03018-USBB-1PGF6	FRITS03018-USBB-1PHMF6	FRITS03018-USBB-1N1F6	FRITS03018-USBB-1N5F6
	070	FRITS07018-USBB-1PGF6	FRITS07018-USBB-1PHMF6	FRITS07018-USBB-1N5F6	FRITS07018-USBB-1N1F6
	06	FRITS0618-USBB-1-PGF6	FRITS0618-USBB-1PHMF6	FRITS0618-USBB-3N5F6	FRITS0618-USBB-3N1F6
	02	FRITS0218-USBB-1F6			
	03	<i>No Accessory Threads.</i> FRITS0318-USBB-1F6			
	07	FRITS0718-USBB-1F6			
Series ITH Quadrax	00	N/A	ITH0018QXX-Y-PHMF6	ITH 0018QXX-Y-CRGF6 (CRG Backshell for Conduit)	
	01	N/A	ITH0118QXX-Y-PHMF6	ITH0118QXX-Y-CRGF6 (CRG Backshell for Conduit)	
	030	N/A	ITH03018QXX-Y-PHMF6	ITH030QXX-Y-CRGF6 (CRG Backshell for Conduit)	
	070	N/A	ITH07018QXX-Y-PHMF6	ITH07018QXX-Y-CRGF6 (CRG Backshell for Conduit)	
	06	N/A	ITH0618QXX-Y-PHMF6	ITH0618QXX-Y-CRGF6 (CRG Backshell for Conduit)	
IPT with Single RJ45	00	IPT0018-RJ45-1PGF6	IPT0018-RJ45-1PHMF6	IPT0018-RJ45-1N5F6	IPT0018-RJ45-1N1F6
	01	IPT0118-RJ45-1PGF6	IPT0118-RJ45-1PHMF6	IPT0118-RJ45-1N5F6	IPT0118-RJ45-1N1F6
	070	IPT07018-RJ45-1PGF6	IPT07018-RJ45-1PHMF6	IPT07018-RJ45-1N5F6	IPT07018-RJ45-1N1F6
	06	IPT0618-RJ45-1PGF6	IPT0618-RJ45-1PHMF6	IPT0618-RJ45-1N5F6	IPT0618-RJ45-1N1F6
	02	IPT0218-RJ45-1F6			
	07	<i>No Accessory Threads.</i> IPT0718-RJ45-1F6			

Backshells

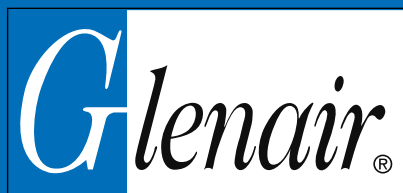
**SERIES 18**

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Facsimile:  
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sales@glenair.com

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**Glenair UK Ltd**  
40 Lower Oakham Way  
Oakham Business Park  
P.O. Box 37, Mansfield  
Notts, NG18 5BY England

Telephone:  
44-1623-638100  
Facsimile:  
44-1623-638111  
sales@glenair.co.uk

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7000 North Lawndale Avenue  
Lincolnwood, IL  
60712

Telephone:  
847-679-8833  
Facsimile:  
847-679-8849

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**Glenair Nordic AB**  
Gustav III : S Boulevard 46  
S - 169 27 Solna  
Sweden

Telephone:  
46-8-50550000  
Facsimile:  
46-8-50550001  
sales@glenair.se

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**Glenair Electric GmbH**  
Siemensstrasse 9  
D-61449 Steinbach  
Germany

Telephone:  
49-6171-5905-0  
Facsimile:  
49-6171-5905-90  
germany@glenair.com

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**Glenair Iberica**  
C/ La Vega, 16  
45612 Velada  
Spain

Telephone:  
34-925-89-29-88  
Facsimile:  
34-925-89-29-87  
sales@glenair.es

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**Glenair Italia S.R.L.**  
Via Santi, 1  
20037 Paderno Dugnano  
Milano, Italy

Telephone:  
39-02-9108-2121  
Facsimile:  
39-02-9904-3565  
sales-italia@glenair.it

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**Glenair France SARL**  
7, Avenue Parmentier  
Immeuble Central Parc #2  
31200 Toulouse  
France

Telephone:  
33-5-34-40-97-40  
Facsimile:  
33-5-61-47-86-10  
sales@glenair.fr

