

Selection Guide

GRF Hermetic Connectors in BNC, TNC, SMA, and other RF Interfaces

Hermetic GRF Connectors feature passivated stainless steel or ferrous steel shells, with glass insulators fused to the connector shell, and contacts meeting a leak rate of 1×10^{-7} cc/Helium per second.

Selection Guide

Glass Sealed Hermetics



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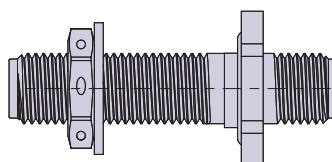
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Lightweight Code Red Hermetics



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GRF05-0002 50 Ohm BNC Series Socket Bulkhead Feedthrough Connector



HOW TO ORDER		
	Sample Part Number	GRF05-0002 Z1
Series	GRF05-0002 = GRF coax hermetic connector	
Finish	Z1 = Stainless steel / passivate ZL = Stainless steel / nickel	

MATERIAL AND FINISH

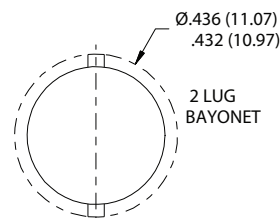
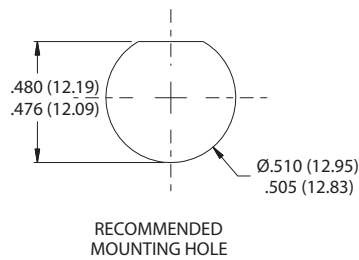
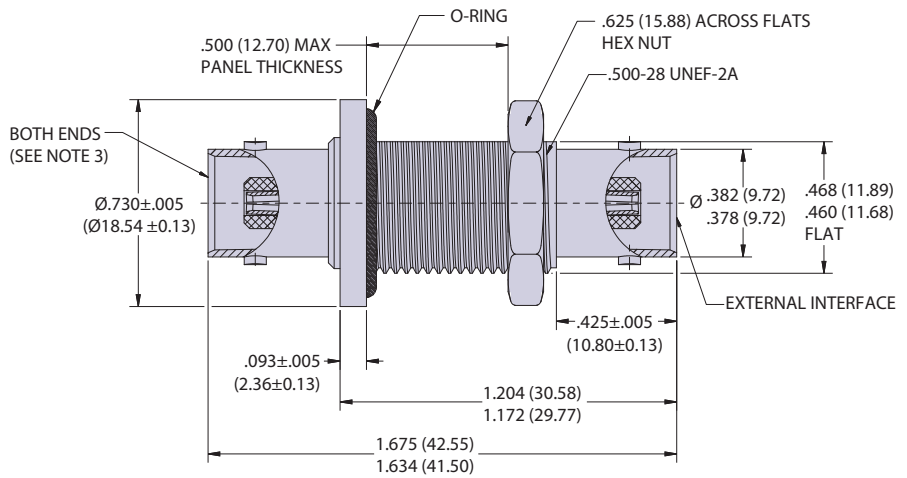
- Shells, jam nut, washer and plate: CRES
- Center pin contact (glass sealed section) Ni alloy/gold plated
- Center socket contact (mating ends) copper alloy/gold plated
- Insulators: fused vitreous glass, high grade rigid dielectric
- O-ring: fluorosilicone.

SPECIFICATIONS

- Meet applicable mechanical and environmental requirements per MIL-PRF-39012/92.
- Nominal impedance: 50 Ohms
- Frequency range: DC to 4 GHz
- Voltage rating: 335 VAC, sea level; 85 VAC, 70k feet.
- Operation temperature range: -65°C to +165°C
- Leak rate: 1 x 10⁻⁷ ccHe/s max, 1 ATM
- Connectors identified with manufacturer's name, part number, and date code space permitting.
- IR: Greater than 5000 MegOhms.
- DWV: 1500 VAC between center contact and outer body.

NOTES

- Connector interface is IAW MIL-STD-348, series BNC, socket contact, 2-lug bayonet coupling



CONTACT JUMPER AND CONNECTOR ASSEMBLIES

GRF05-0004 50 Ohm BNC Series Socket Bulkhead Feedthrough Connector



HOW TO ORDER			
Sample Part Number		GRF05-0004	-1 Z1
Series	GRF05-0004 = GRF triax hermetic adapter		
Keying (Both Ends)	-1 = .4375-28 UNEF-2A Thd		
	-2 = 2 Lug Bayonet		
	-3 = 3 Lug Bayonet		
Finish	Z1 = Stainless steel / passivate		
	ZL = Stainless steel / nickel		
	Z3 = Silver Plate		

MATERIAL AND FINISH

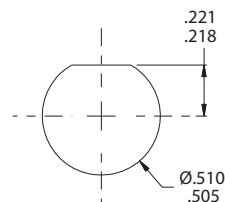
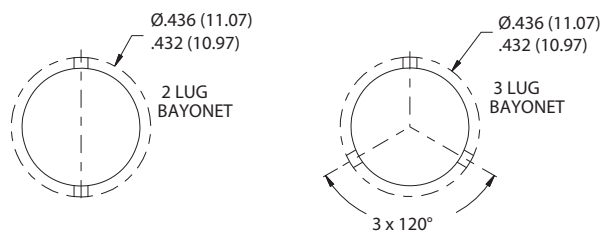
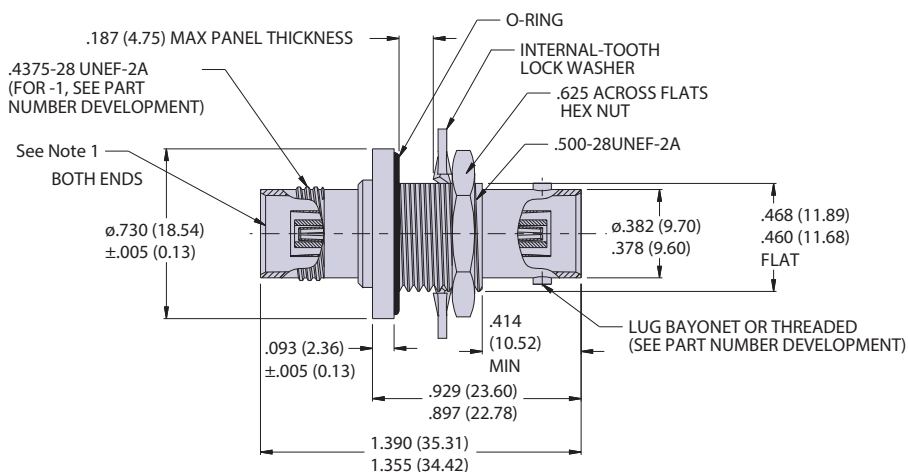
- Body, jam nut: CRES/see part number development
- Intermediate contact and center pin contact (glass sealed section) - nickel-iron and nickel alloy / gold plated
- Center socket contact (mating ends): BeCu/gold plated alloy
- Insulator: fused vitreous glass/N.A. PTFE/N.A.
- Sealing gasket: Fluorosilicone/N.A.

SPECIFICATIONS

- Frequency range: DC to 4 Ghz
- Insertion loss: -.157 dB min
- VSWR: 1.25 max
- Hermeticity: 1×10^{-7} cc/sec of helium at one atmosphere Delta P
- Insulation resistance: greater than 5000 MegOhms
- DWV: 1200 VAC between center contact and intermediate contact, 500VAC between intermediate contact and outer body
- Operating temperature: -65°C to +200°C

NOTES

1. With bayonet or threaded coupling (see part number development).



RECOMMENDED MOUNTING HOLE

CONTACT JUMPER AND CONNECTOR ASSEMBLIES

GRF05-0005 50 Ohm TNC Coax Bulkhead Feedthrough Connector



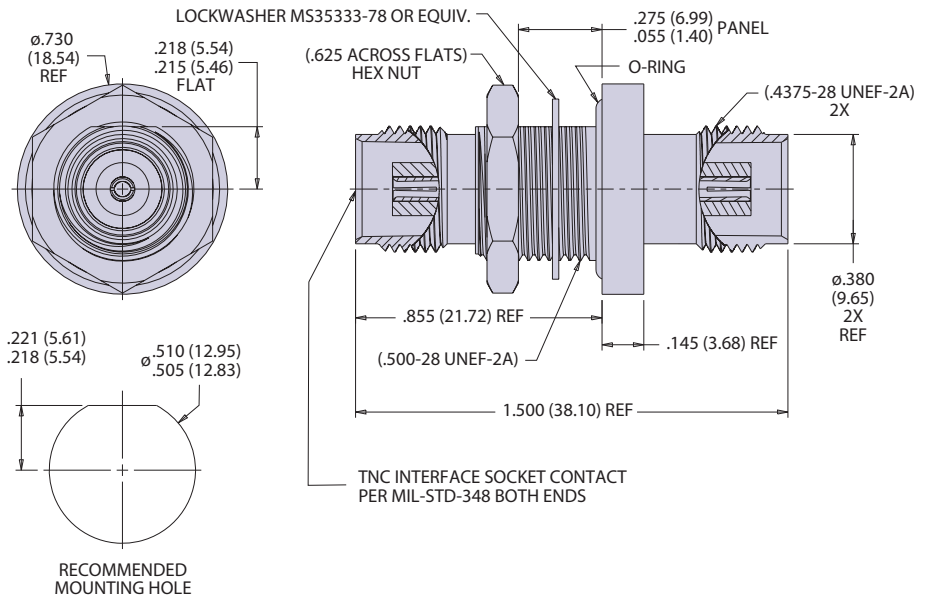
HOW TO ORDER		
	Sample Part Number	GRF05-0005 Z1
Series	GRF05-0005 = GRF triax hermetic adapter	
Finish	Z1 = Stainless steel / passivate ZL = Stainless steel / nickel	

MATERIAL AND FINISH

- Body, jam nut: CRES/see part number development
- Center pin contact (glass sealed section): alloy 52/gold plated
- Center socket contact (mating ends): BeCu/gold plated
- Insulator: fused vitreous glass/N.A. PTFE/N.A.
- O-ring - fluorosilicone

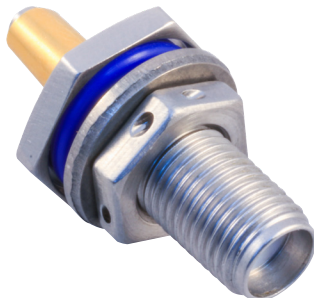
SPECIFICATIONS

- Per applicable MIL-PRF-55339/34
- Frequency range: DC to 11 ghz
- Insertion loss: .5 Db max
- VSWR: 1.4:1 Max, 0.5 To 11 ghz
- Hermeticity: < 1 x 10⁻⁷ cc/sec at one Atmosphere
- IR: 5000 megaohms min
- DWV: 1500 VAC between center contact and outer body
- Operating temperature: -65°C to +165°C



CONTACT JUMPER AND CONNECTOR ASSEMBLIES

GRF01-0007 50 Ohm BNC Series Socket Bulkhead Feedthrough Connector



HOW TO ORDER	
Sample Part Number	GRF01-0007
Series	GRF01-0007 = GRF triax hermetic adapter

MATERIAL AND FINISH

- Shell: stainless steel 304L / passivated
- Mounting nut, washer: stainless steel 303 / passivated
- Hermetic seal contact: alloy 52 / gold plated
- Front socket and rear contacts: copper alloy / gold Plated
- Insulator: PTFE / N.A.
- Fused vitreous glass / N.A.
- O-ring: fluorosilicone per MIL-DTL-25988 or equivalent / N.A.

SPECIFICATIONS

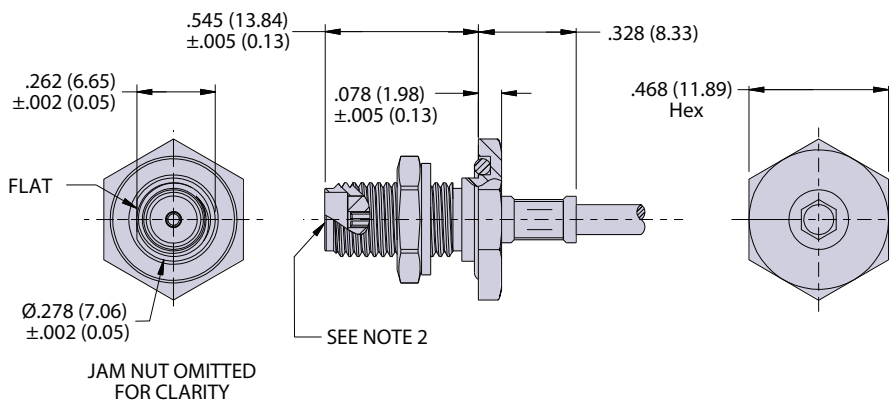
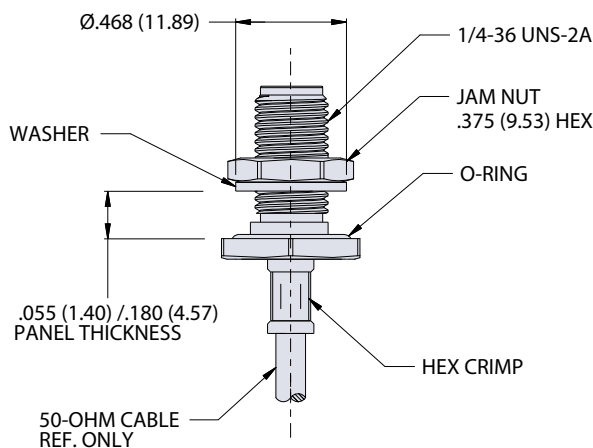
- Temperature range: -65°C to +125°C
- Hermeticity: < 1 x 10⁻⁷ cc/sec of helium at one atmosphere Delta P.
- Impedance: 50 ohms nom.
- Frequency range: DC-10 Ghz
- VSWR: 1.20:1 DC to 3 Ghz
- Insertion loss: .2 dB, DC to 3 Ghz
- DWV: 1000 VRMS at sea level
- IR: 5000 megohms minimum, room temperature

NOTES

1. Connector is designed for 50 Ohm cable see table I
2. Connector interface per Mil-STD-348, Series SMA, Socket contact"

CABLES ACCOMODATED

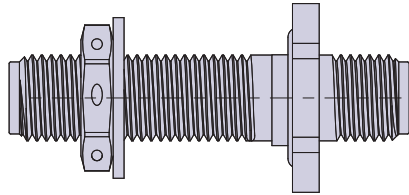
- M17/113-RG316
- M17/119-RG174
- M17/138-00001
- M17/217-00001
- RG188



CONTACT JUMPER AND CONNECTOR ASSEMBLIES

GRF05-0014 50 Ohm SMA/F-SMA-F Special Feedthrough Adapter

CONTACT JUMPER AND CONNECTOR ASSEMBLIES



HOW TO ORDER			
		Sample Part Number	GRF05-0014 ZL
Series	GRF05-0014 = GRF SMA/F to SMA/F adapter		
Finish	Z1 = Stainless steel / passivate		
	ZL = Stainless steel / nickel		

MATERIAL AND FINISH

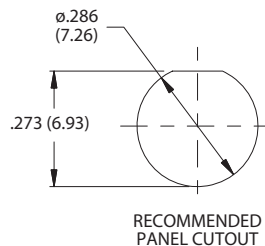
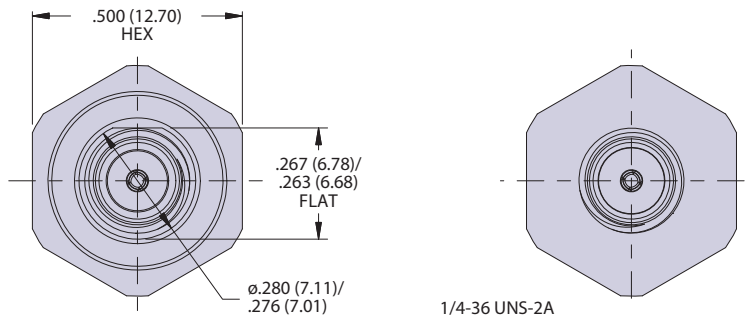
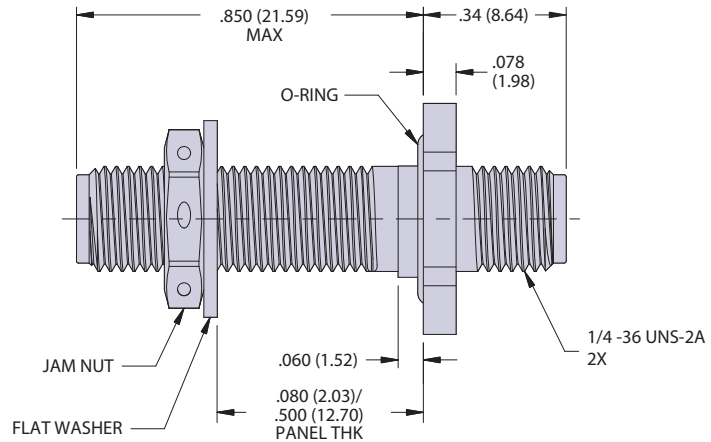
- Shells and plate: see part number development
- Center pin contact (glass sealed section) Ni alloy/gold plated
- Center socket contact (mating ends) copper alloy/gold plated
- Insulators: fused vitreous glass, high grade rigid dielectric / N.A.
- Jam nut, washer: SST / N.A.
- O-ring: fluorosilicone / N.A.

SPECIFICATIONS

- Meet applicable mechanical and environmental requirements per MIL-PRF-39012/92.
- Nominal impedance: 50 Ohms
- Frequency range: 0 to 18 GHz
- Voltage rating: 335 VAC, sea level; 85 VAC, 70k feet.
- Operation temperature range: -65°C to +165°C
- Leak rate: 1 x 10⁻⁷ ccHe/s MAX, 1 ATM
- Connectors identified with manufacturer's name, part number, and date code space permitting.

NOTES

1. Adapter interfaces per MIL-STD-348, SMA, socket contact



GRF01-0003

Code Red, 50 Ohm SMA/F-SMA-F Coax Bulkhead Feedthrough Connector



HOW TO ORDER			
		Sample Part Number	GRF01-0003
			Z1
Series	GRF01-0003 = GRF triax hermetic adapter		
Finish	Z1 = Stainless steel / passivate		
	ZL = Stainless steel / nickel		
	BM = Copper alloy / nickel		

MATERIAL AND FINISH

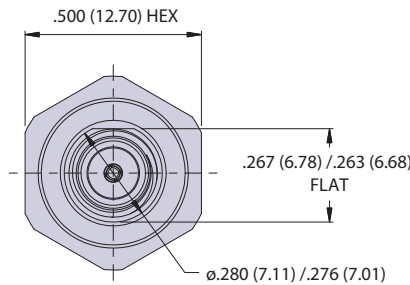
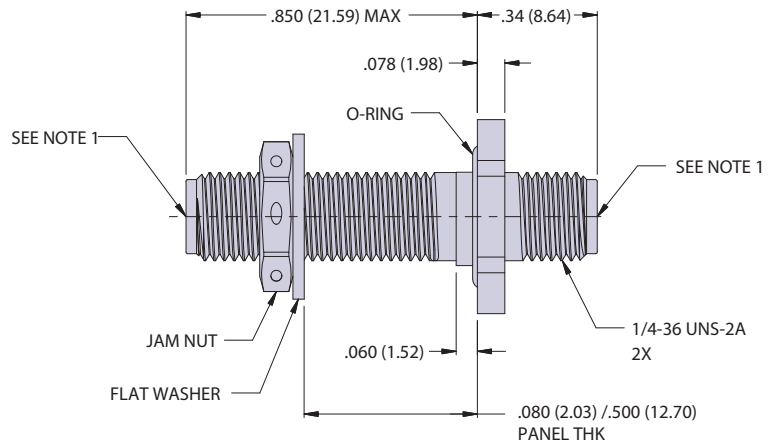
- Shells and plate: see part number development
- Insulators: high grade rigid dielectric / N.A.
- O-ring & seals: fluorosilicone / N.A.
- Contacts: copper alloy / gold over nickel
- Sealing compound: polymer encapsulant

SPECIFICATIONS

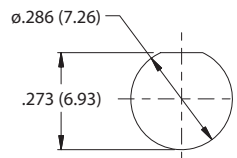
- Meets applicable mechanical and environmental requirements per MIL-PRF-39012/92
- Nominal Impedance: 50 Ohms
- Frequency range: 0 to 26.5 GHz
- Voltage rating: 335 Vac, sea level; 85 Vac, 70K feet
- Operating temperature: -65°C to 150°C
- Leak Rate: 1×10^{-7} ccHe/s max 1 ATM

NOTES

- Adapter interfaces PER MIL-STD-348, SMA, socket contact



HARDWARE NOT SHOWN FOR CLARITY



RECOMMENDED PANEL CUTOUT

CONTACT JUMPER AND CONNECTOR ASSEMBLIES