



*FS4B Fiber
Optic Connectors*

About the FS4B Connector

In 1999, Amphenol Fiber Systems International (AFSI) designed the “next generation” deployable fiber optic connector for the environmentally harsh conditions encountered during outdoor broadcast applications.

These connectors provide high performance solutions when used for the transmission of digital audio and broadband high definition video signals.

The heart of the FS4B family of deployable fiber optic connectors centers on the FS4B sealed free floating termini. The unique termini design enables FS4B connectors to seal against high humidity and moisture conditions while allowing full axial and orbital movement of the mated termini, providing low insertion loss and minimal back reflection.

AFSI has further refined this successful design to address the unique needs in all harsh environments. Subsequently, the FS4B is offered in Anodized Aluminum, Stainless Steel and Brass with a variety of cable options such as tactical, armor sheathed and rodent proof.

Features and Benefits

- **Hermaphroditic Design for Versatility** - Enables multiple FS4B plug assemblies to be concatenated for rapid deployment and flexibility.

- **Removable End Cap** - Allows for easy field maintenance and cleaning.
- **Improved Cable Retention Strength** - Designed to meet 400lbs. pull strength while protecting fibers from stress.
- **PTFE Impregnated Hard Anodized Coating** - Provides substantial longevity to corrosive environments in matte or glossy finish. Meets new mandate set by Environmental Protection Agency for elimination of heavy metal plating and is RoHS compliant.
- **Commercial Ceramic Ferrule Technology** - Enables FS4B connector to provision multimode and single mode interconnect with a variety of polishes including SPC and UPC.
- **Solid Core Alignment Sleeves** - More robust than split alignment sleeves.
- **Hermaphroditic Dust Cap** - Plug and/or receptacle dust caps connect together to prevent dust and moisture penetration during deployable conditions.
- **Optional Key Positions** - Four key positions (1,2,3, universal) available, enabling segregation of mated plug/receptacles or plug/plug, through mechanical interface.
- **Field Repairable Using Existing Parts** - Additional connector components (other than termini) are not required to perform field repair.
- **Also Available in Stainless Steel and Brass** - Allows the connector to be used in a variety of applications.

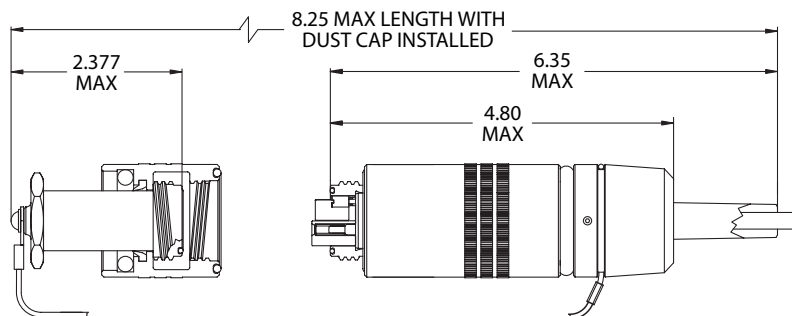
Applications

- Broadcast
- Industrial
- Oil, Gas and Geoscience industries
- U.S. Army, Navy, and Marine Corp military tactical deployments
- Mining

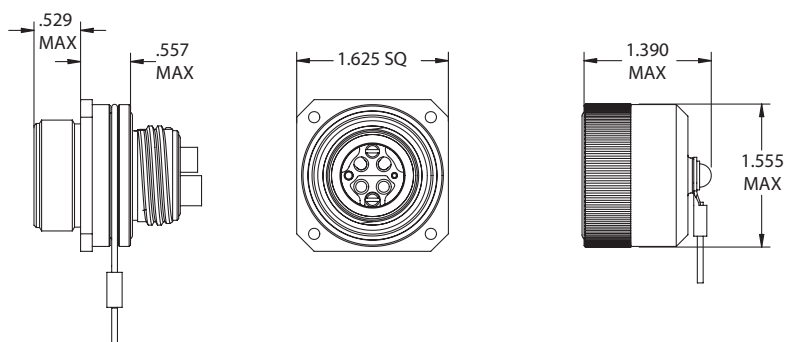
FS4B 4-Channel Connector Specifications

Parameter	Typical	Maximum
Insertion loss (multimode)	0.30dB	0.75dB
Insertion loss (single mode)	0.40dB	0.75dB
Back reflection (single mode-UPC polish)	-50dB	-40dB
Operating temperature	-46° C to + 71° C	
Storage temperature	-55° C to + 85° C	
Mud	5 minute immersion, clean with water (per MIL-C-83526 requirements)	
Water immersion	EIA-455-40, Water, 1m, 48 hr	
Ice crush	DOD-STD-1678, Method 4050	
Humidity	TIA/EIA-455-5	
Flammability	MIL-STD-1344, Method 1012	
Vibration (operational)	TIA/EIA-455-11	
Shock	EIA/TIA-455-14, Condition A	
Mating durability	2,000 cycles per EIA/TIA-455-21	
Cable seal flexing	100 cycles per TIA/EIA-455-1	
Twist	1,000 cycles per EIA/TIA-455-36	
Cable retention	400 pounds minimum per EIA/TIA-455-6, 1hr (applies to plug and strain relief receptacles)	
Impact	EIA/TIA-455-2, Method B	
Crush resistance	450 pounds minimum per EIA/TIA-455-26	
EMI shielding effectiveness (receptacle only)	> 60dB PER IEEE-299, 15KHz to 10GHz	
Corrosion resistance	TIA/EIA-455-16	

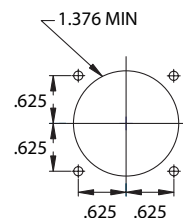
FS4B4-Channel Plug



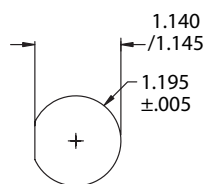
FS4B4-Channel Flange Mount Receptacle



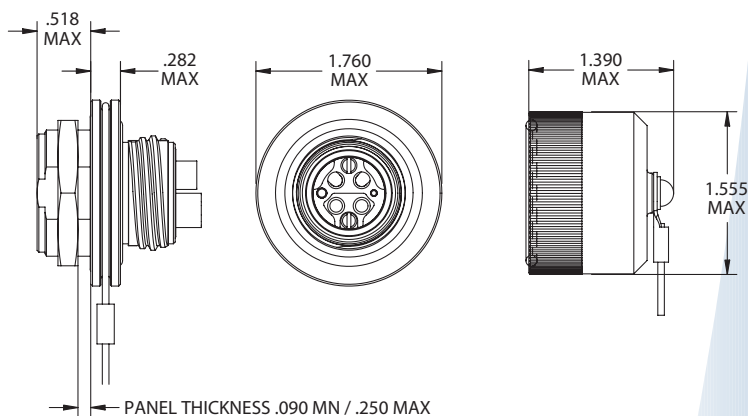
FS4B4-Channel Flange Mount Receptacle Panel Cut-out



FS4B4-Channel Jam Nut Receptacle Panel Cut-out



FS4B4-Channel Jam Nut Receptacle



Drawings are not to scale. Measurements are in inches.

How to Order

For more information on how to order or to obtain a price quote on the FS4B 4-channel products, please call us at 800.472.4225. For international calls please dial 1.214.547.2400 or email us at info@fibersystems.com

About Amphenol Fiber Systems International

Amphenol Fiber Systems International (AFSI) designs, manufactures, markets and supports reliable and innovative fiber optic interconnect solutions that withstand the harsh environments of broadcast, military, oil & gas and mining applications. After more than a decade in business, AFSI continues to uphold its position as a global leader in fiber optic interconnect components and systems such as termini, M28876, MIL-ST, TFOCA and the TFOCA-II[®] connector, which AFSI developed and patented. Altogether, AFSI has delivered millions of fiber optic connectors in more than 22 countries. Whenever there is a need for superior cost-effective fiber optic systems and products that will stand up to demanding operating environments, you can rely on AFSI for engineering know-how, top-quality products and expert technical support.

For more information about AFSI, please visit our web site at www.fibersystems.com

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TFOCA-II is covered by U.S. Patents 6,305,849; 6,371,660 and 6,357,929

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