

## StapleMate®



### **Amphenol Fiber Systems International (AFSI) manufactures a complete line of next generation fiber optic connectors designed to meet the needs of harsh environment applications.**

Amphenol Fiber Systems International (AFSI) has developed the next generation “long-wall shield communications” deployable fiber optic connector. The StapleMate® connectors were developed in direct response to specific customer needs.

This revolutionary connector provides mining engineers with real-time data on the long-wall shield, allowing them better control and faster response time in case of emergency. The StapleMate® connectors will allow the remote control unit to be located at greater distances from the longwall shields or above ground, providing a safer work environment.

#### **Features & Benefits :**

- Solid mechanism & robust construction
- Locked by a staple for quick disconnect
- Mechanical indexing of the alignment to avoid twisting
- Sealed design provides for a water tight seal
- Gold plated electrical contacts
- Electrical contacts; male and female with sealing o-rings
- Fiber optic contacts; male and female with sealing o-rings
- Guide pins in the insulator improves termini alignments
- Up to eight channels with M29504/14 /15 termini
- Up to eight channels with 16AWG contacts
- Any combination of conductors and fiber optics in the same connector
- Standard hydraulic coupling
- Uses all standard staples
- Uses standard 3/8 hydraulic hose with crimp
- Available in a 37 deg. flare male style version
- Packing gland receptacle is available for XP use

**Amphenol Fiber Systems International, Inc. | 1300 Central Expressway N, Suite 100 Allen, TX 75013**

Phone: (214) 547-2400 | Email: [sales@fibersystems.com](mailto:sales@fibersystems.com) | Website: [amphenol-fsi.com](http://amphenol-fsi.com)

Amphenol Fiber Systems International (AFSI), a division of Amphenol Military & Aerospace Operations (AMAO), is the largest manufacturer of harsh environment fiber optic cable assemblies & connectors in the world. Visit AMAO at [amphenolmao.com](http://amphenolmao.com).

# StapleMate®

Amphenol FSI

## Materials:

- Ferrule: 2.0mm diameter ceramic ferrule
- Exterior parts: Brass or stainless steel
- Inserts: Polyetherimide
- Seals: Nitrile
- Sleeves: Precision captivated split zirconia sleeves

## Applications:

- Mining
- Oil, Gas & Geo-science
- Industrial

## Options Available:

- Plug with 37 deg. flare male end
- XP version socket 2" OD snap ring locking style
- XP 90o version available

Specification	Measurement/Detail
Operating Temperature	-52° C to + 85° C
Water Pressure	Per MIL-STD-1344, Method 2005, Condition II & VI
Vibration	Per MIL-STD 901C Grade A
Shock	-54°C to +65°C per MIL-STD-1344, Method 1003
Size Guage	-62°C to +70°C per MIL-STD-1344, Method 1003
Separation Forces	500 hour salt spray MIL-STD-1344, Method 1001
Current Rating	Per MIL-STD-1344, Method 1007
Resistance	10 cycles per MIL-STD-1678, Method 4030
Insertion Loss (MM)	Per MIL-STD-1344, Method 1016
Insertion Loss (SM)	7 tests @ 1250 Newton per MIL-STD-1344, Method 2008.1
Contact Retention	Per MIL-STD-1344, Method 2002
Mating Cycle Durability	22 lbs. min. per MIL-STD-1344, Method 2007
Water Absorption	100 PSI min. per MIL-STD-1344, Method 2010
Flammability, UL94	162 pounds min. per EIA-455-6
Connector Body	Per MIL-STD-1344, Method 2017
Insert Body	Insert

Amphenol Fiber Systems International, Inc. | 1300 Central Expressway N, Suite 100 Allen, TX 75013

Phone: (214) 547-2400 | Email: [sales@fibersystems.com](mailto:sales@fibersystems.com) | Website: [amphenol-fsi.com](http://amphenol-fsi.com)

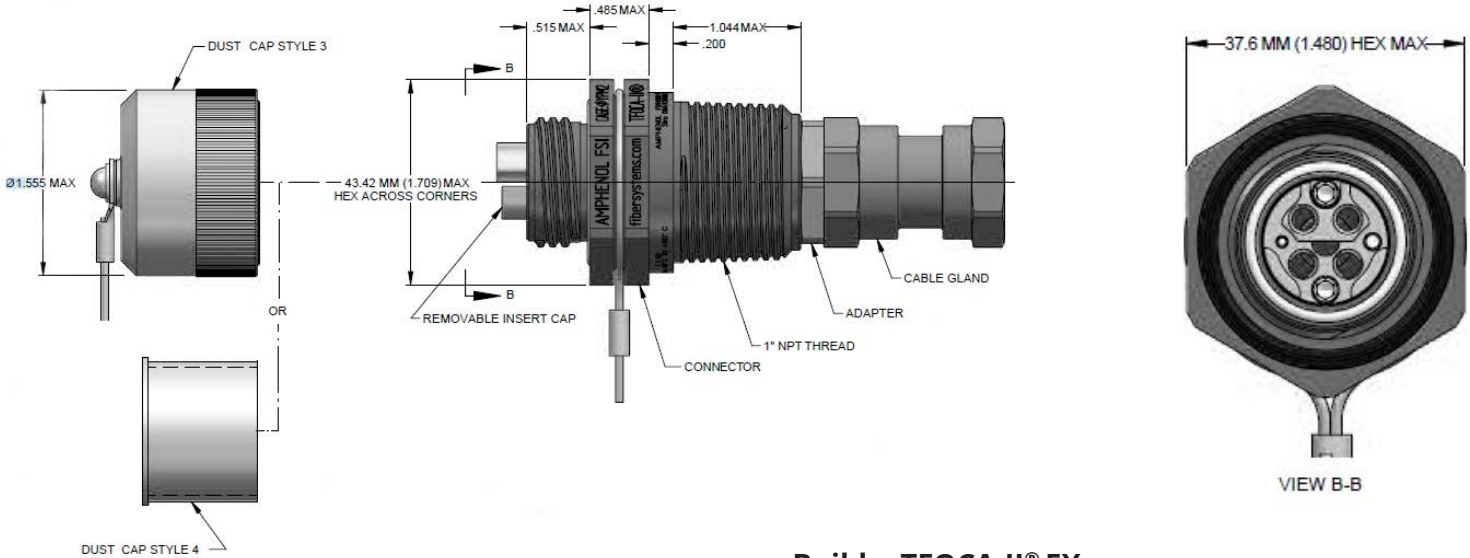
Amphenol Fiber Systems International (AFSI), a division of Amphenol Military & Aerospace Operations (AMAO), is the largest manufacturer of harsh environment fiber optic cable assemblies & connectors in the world. Visit AMAO at [amphenolmao.com](http://amphenolmao.com).

# TFOCA-II<sup>®</sup> EX

### Applications:

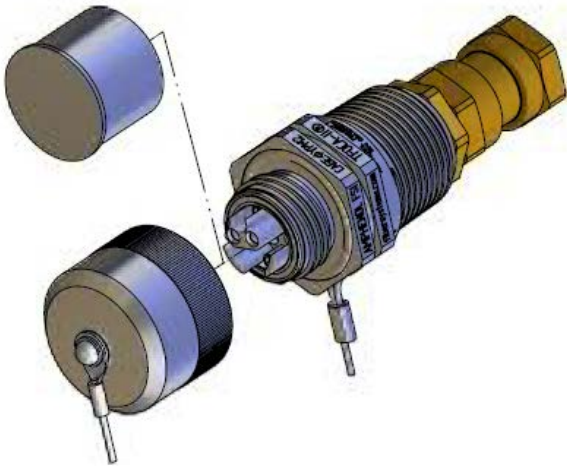
- Hazardous environments in petrochemical refineries
- Oil & Gas drilling platforms
- Power plants
- LNG terminals

### TFOCA-II<sup>®</sup> EX Dimensional and 3D Drawings:



### Build a TFOCA-II<sup>®</sup> EX:

1. Base Part Number	2. Plated Material	3. O Rings	4. Key Options	5. Cable Gland	6. Dust Cap
FS4H5007					



<b>1. Base Part Number</b>		<b>2. Plated Material</b>	
FS4H5007		B Brass 360 Ni Plated	
<b>3. O-Rings</b>		<b>4. Key Options</b>	
B Aluminum		1 Key 1, Grey	
		2 Key 2, Blue	
		3 Key 3, Red	
		4 Key 4, Green	
<b>5. Cable Gland</b>		<b>6. Dust Cap</b>	
A Cable Range 0.118-0.315"		3 Female Dust Cap W/ Lanyard	
B Cable Range 0.295-0.469"		4 Plastic Dust Cap (Disposable)	

## TFOCA-II® EX

### TFOCA-II® EX Specifications:

Specification	Measurement/Detail
<b>Operating Temperature</b>	-46°C to + 71°C
<b>Storage Temperature</b>	-52°C to + 85°C
<b>Mud</b>	5 Min immersion, clean with water
<b>Water Pressure</b>	-MIL-STD-810, Method 512.4, 1 m, 48 hr
<b>Ice Crush</b>	DOD-STD-1678, Method 4050
<b>Humidity</b>	DOD-STD-1678, Method 4030, 10 cycles
<b>Flammability</b>	MIL-STD-1344, Method 1012
<b>Vibration (Operational)</b>	MIL-STD-1344, Method 2500.1
<b>Shock</b>	EIA/TIA-455-14, Condition A
<b>Mating Durability</b>	2,000 cycles per EIA/TIA-455-21
<b>Cable Seal Flexing</b>	100 cycles per MIL-STD-1344, Method 2017
<b>Twist</b>	1,000 cycles per EIA/TIA-455-36
<b>Cable Retention</b>	400 lb min per EIA/TIA-455-6, 1hr (plug & strain relief receptacles)
<b>Impact</b>	EIA/TIA-455-2
<b>Crush Resistance</b>	450 lb min per EIA/TIA-455-26
<b>EMI Shielding Effectiveness</b>	> 60dB, 15 KHz to 10 GHz
<b>Corrosion Resistance</b>	MIL-STD-1344, Method 1001, Condition A

### How to Order :

For more information on how to order or to obtain a price quote on any of our TFOCA-II® EX products, please call us at 800-472-4225. For international calls please dial 214-547-2400 or e-mail us at [info@fibersystems.com](mailto: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 military, oil & gas, mining and broadcast applications. After more than two decades 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.

AFSI has delivered millions of fiber optic connectors in more than 34 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.

Visit [www.amphenol-fsi.com](http://www.amphenol-fsi.com) for more information.