



M83526/20 qualified AFSI TACBeam® rugged fiber optic connector

About the TACBeam® Connector

Amphenol Fiber Systems International (AFSI) has announced the latest addition to its Harsh Environment product portfolio. The TACBeam® is a MIL-PRF-83526/20 & /21 qualified expanded beam rugged fiber optic connector for military and industrial applications.

TACBeam® is hermaphroditic, which allows multiple cable assemblies to connect together to support varying distance requirements. The TACBeam® connectors are available in both multimode and single mode, can support two or four channels using a common insert and will accept a wide variety of cables for any application. Sub-micron machining and measuring equipment is in the Amphenol Fiber Systems International (AFSI) facility for the manufacturing of this new expanded beam product.

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.

Key Features

- QPL Qualified
 - M83526/20 & /21 qualified
- Mechanical
 - Hermaphroditic coupling
 - Enables 'daisy-chaining' assemblies supporting varying distances
- Single Mode and Multimode
 - The only dual wavelength qualified connector
- Expanded Beam
 - Less susceptible to contaminants affecting optical performance
- Environmental
 - Operating temperature -46°C to + 71°C
 - 15 m water depth-mated
 - 3000 cycles mating durability
- ROHS Compliant
 - Hard black anodized aluminum
 - Cadmium free
 - Marine bronze & stainless steel available

Applications

- C4ISR Tactical Military Ground Communications
- Oil & Gas Seismic Systems
- Broadcast Systems
- Mining and Tunneling Equipment

Altogether, AFSI has delivered millions of fiber optic connectors worldwide. 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.

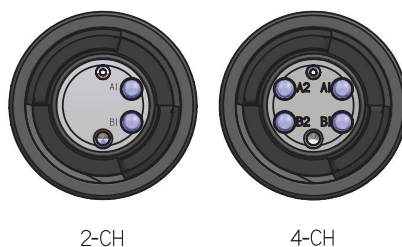
For more information about AFSI, please visit our website at www.amphenol-fsi.com

Performance

Requirement	Result
Insertion Loss, Typical	1.5 dB Multimode @ 850/1300 nm, 0.7 dB Typical 2.5 dB Single Mode @ 1310/1550 nm, 1.0 Typical
Return Loss	>34 dB unmated @ 1310/1550 nm
Mating Durability	3,000 cycles
Operating Temperature	-46°C to 71°C
Storage Temperature	-57°C to 85°C
Cyclic Temperature	-55°C/85°C
Humidity	95% RH
Immersion	15 m, water (plug & receptacle)
Shock	EIA/TIA 455-14, test condition A
Impact	EIA/TIA 455-2, method C, service class: Severe
Vibration	EIA/TIA 455-11, sinusoidal condition III (at 10 g), random condition VI (letter C) for 1.5 hours
Weight	Approximately 130 g plug & 100 g receptacle

Channel Options

The channel configurations A1, B1 and A1, A2, B1, B2 are shown below:



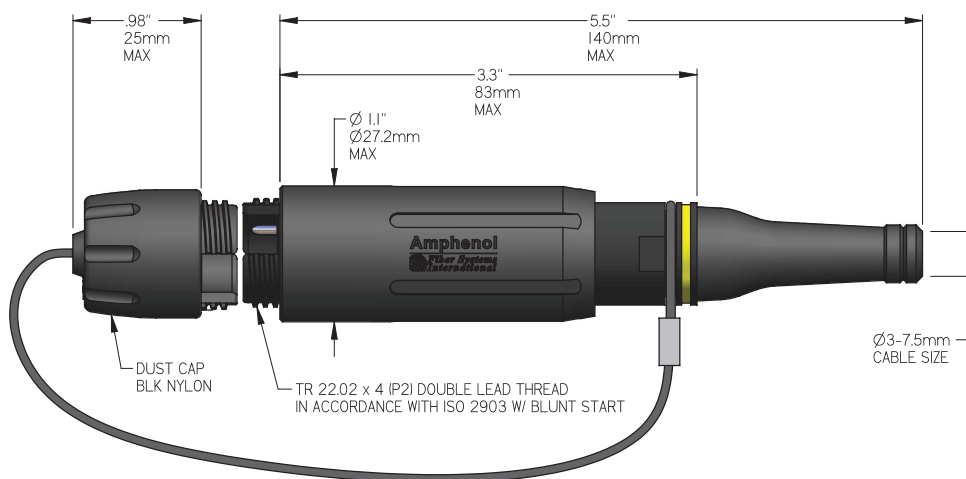
2-CH

4-CH

Assembly Tooling

No special tooling is required for the termination of this product.

EB4H1000 Plug Assembly



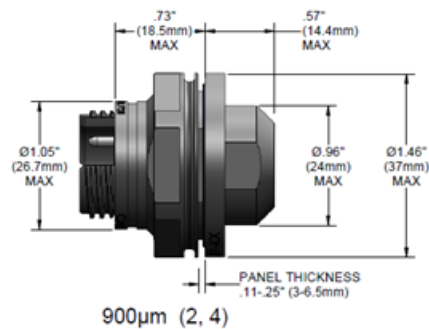
EB4H1000 Ordering Information

EB4H1000-			
MATERIAL	# CHANNELS	WAVELENGTH	CABLE
3 - BLACK ALUMINUM	2 - 2-CH	1 - 850/1300 nm	3 - 3-4.5 mm
A - MARINE BRONZE	4 - 4-CH	2 - 1310 nm	5 - 4.5-6 mm
B - 360 BRASS		3 - 1550 nm	7 - 6-7.5 mm
C - 303 STAINLESS		4 - 1310/1550 nm	
F - 316 STAINLESS			

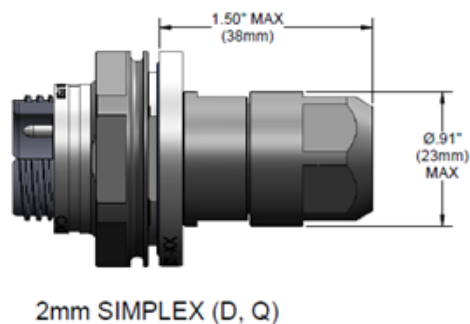
M83526/20 Ordering Information

MIL Spec (Plug)	AFSI Part Number	No. of Channels	Wavelength	Mode
M83526/20-01	M83526/20-01	4	850/1300 nm	Multi
M83526/20-02	M83526/20-02-03	4	1310/1550 nm	Single
M83526/20-03				
M83526/20-04	M83526/20-04	2	850/1300 nm	Multi
M83526/20-05	M83526/20-05-06	2	1310/1550 nm	Single
M83526/20-06				

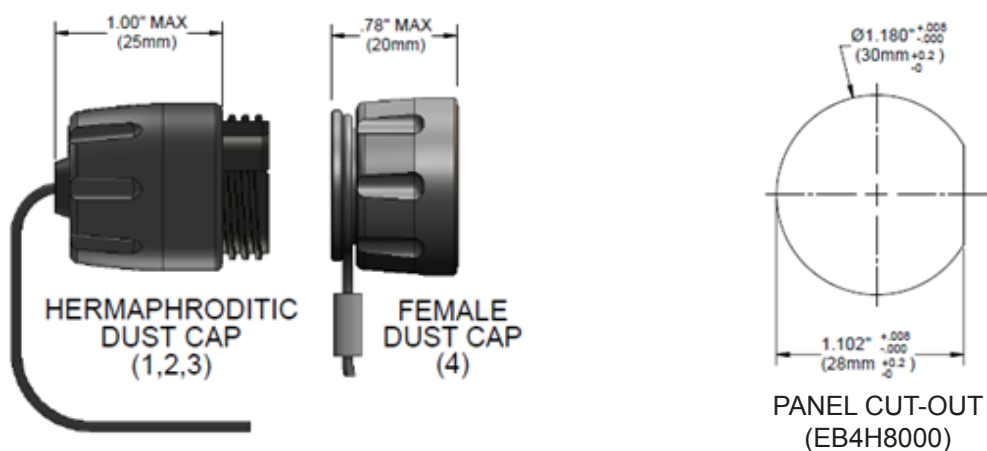
EB4H8000 Jam Nut Receptacle Assembly - 900 μ m



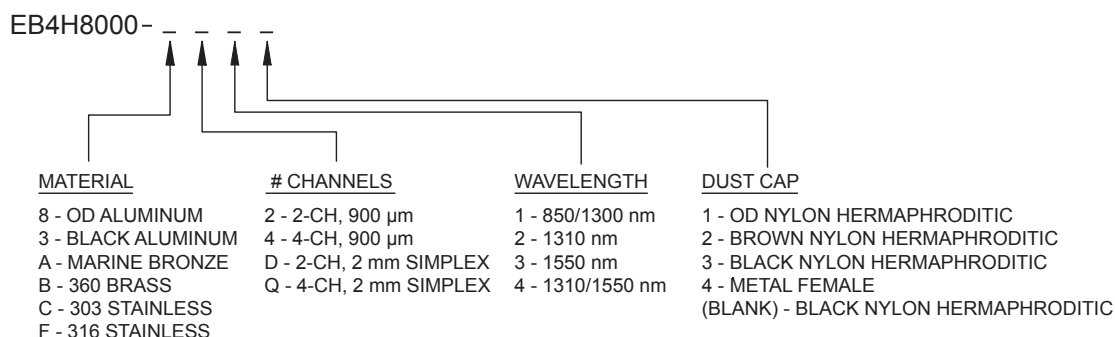
EB4H8000 Jam Nut Receptacle Assembly - 2 mm Simplex



EB4H8000 & EB4H6000 Protective Caps and Panel Cut-Out



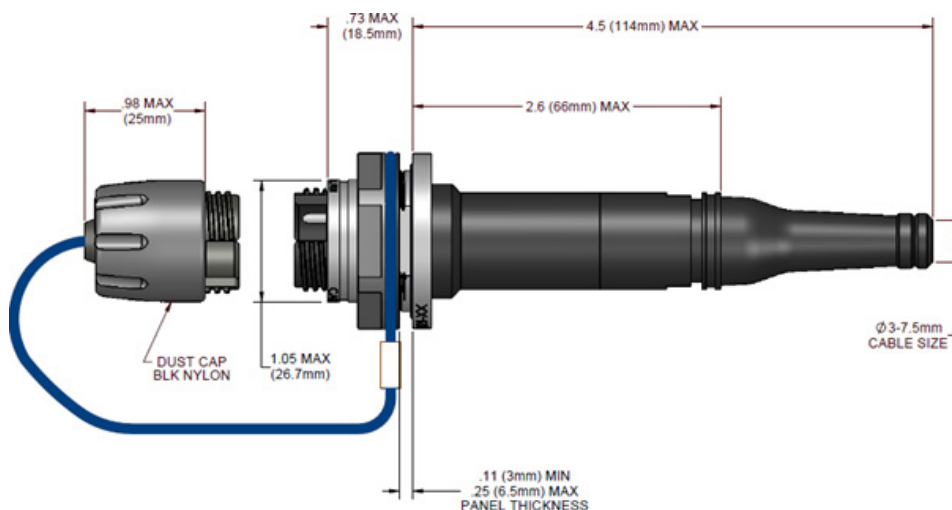
EB4H8000 Ordering Information



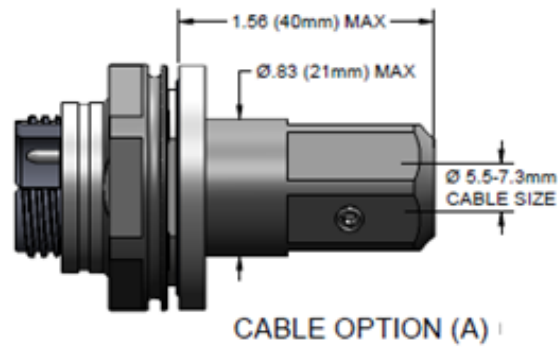
M83526/21 Ordering Information

MIL Spec (Jam Nut Receptacle)	AFSI Part Number	No. of Channels	Wavelength	Mode
M83526/21-01	M83526/21-01	4	850/1300 nm	Multi
M83526/21-02	M83526/21-02-03	4	1310/1550 nm	Single
M83526/21-03				
M83526/21-04	M83526/21-04	2	850/1300 nm	Multi
M83526/21-05	M83526/21-05-06	2	1310/1550 nm	Single
M83526/21-06				

EB4H8280 Jam Nut Receptacle Assembly with Sealed Strain Relief



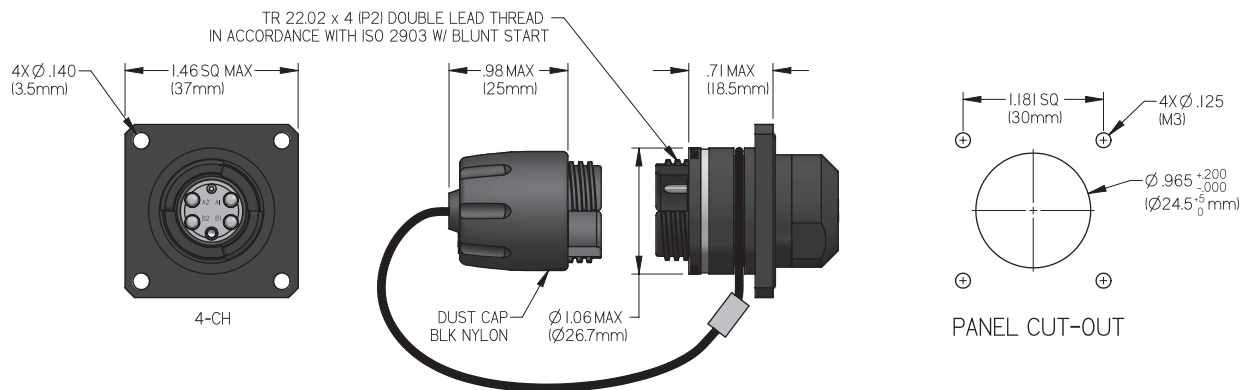
EB4H8280 Jam Nut Receptacle Assembly - with Unsealed Strain Relief



EB4H8280 Ordering Information

EB4H8280-				
MATERIAL	# CHANNELS	WAVELENGTH	CABLE	DUST CAP
3 - BLACK ALUMINUM	2 - 2-CH	1 - 850/1300 nm	A - 5.5-7.3 mm	1 - OD NYLON HERMAPHRODITIC
8 - OD ALUMINUM	4 - 4-CH	2 - 1310 nm	3 - 3-4.5 mm	2 - BROWN NYLON HERMAPHRODITIC
A - MARINE BRONZE		3 - 1550 nm	5 - 4.5-6 mm	3 - BLACK NYLON HERMAPHRODITIC
B - 360 BRASS		4 - 1310/1550 nm	7 - 6-7.5 mm	4 - METAL FEMALE
C - 303 STAINLESS				
F - 316 STAINLESS				

EB4H6000 Square Flange Receptacle Assembly - 900 µm

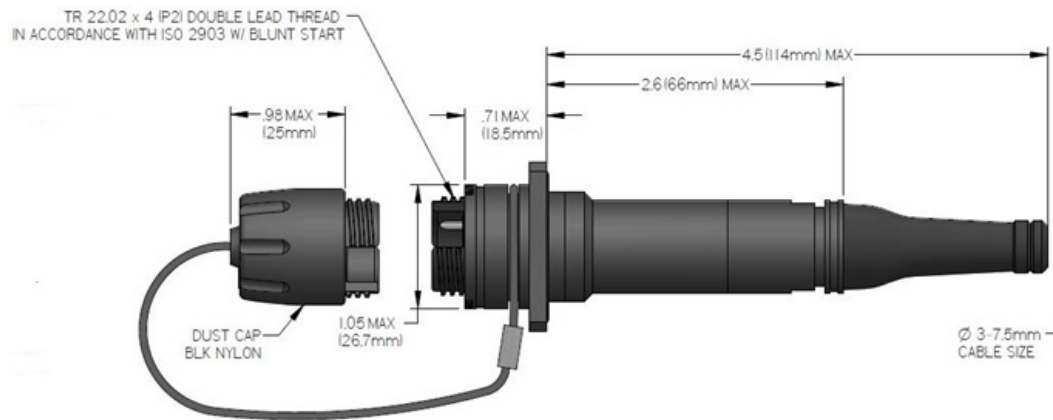


EB4H6000 Ordering Information

EB4H6000 -

MATERIAL	# CHANNELS	WAVELENGTH	DUST CAP
8 - OD ALUMINUM	2 - 2-CH	1 - 850/1300 nm	1 - OD NYLON HERMAPHRODITIC
3 - BLACK ALUMINUM	4 - 4-CH	2 - 1310 nm	2 - BROWN NYLON HERMAPHRODITIC
A - MARINE BRONZE		3 - 1550 nm	3 - BLACK NYLON HERMAPHRODITIC
B - 360 BRASS		4 - 1310/1550 nm	4 - METAL FEMALE
C - 303 STAINLESS			
F - 316 STAINLESS			

EB4H6200 Flange Receptacle Assembly with Sealed Strain Relief



EB4H6200 Ordering Information

EB4H6200 -

MATERIAL	#CHANNELS	WAVELENGTH	CABLE
8 - OD ALUMINUM	2 - 2-CH	1 - 850/1300 nm	3 - 3-4.5 mm
3 - BLACK ALUMINUM	4 - 4-CH	2 - 1310 nm	5 - 4.5-6 mm
A - MARINE BRONZE		3 - 1550 nm	7 - 6-7.5 mm
B - 360 BRASS		4 - 1310/1550 nm	
C - 303 STAINLESS			
F - 316 STAINLESS			