

FSA Fiber Optic Sealing Assemblies

Conax Technologies has adapted our proven soft sealant capability to include the ability to compress a soft sealant material around the outside diameter of a fiber optic cable. The fiber optic cable is encased within a rugged stainless steel sheath that protects the cable from damage during the sealing process. This sheath is then placed through a seal fitting. This process allows the fiber optic cable to be sealed without the use of epoxies and with minimal outgassing.

The fiber optic feedthrough sub-assembly can be used with various Conax Technologies Seal Fittings, including multiple hole fittings, and can be adapted for special applications.

Features

- Wide range of connector terminations: ST, SMA, FC, FC/APC, FC/PC and SC/APC
- Standard fiber core sizes: 8.3, 62.5, 100, 200, 400, 600, 700 micron and larger
- Adaptable to customer-supplied fiber
- Can seal outside buffer diameters from 400 to 1040 microns

- Protection Tubing: Standard furcation tube (black in color) is constructed of a polypropylene inner tube with a dried Kevlar™ Aramid yarn strength member and a 3.0 mm outer polyethylene jacket.

- Models FSA2 and FSA4 are available with a low-outgassing furcation tube. Please specify FSA2B or FSA4B for this feature.

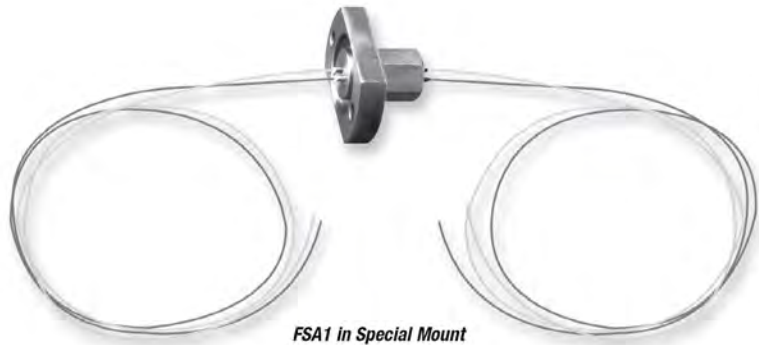
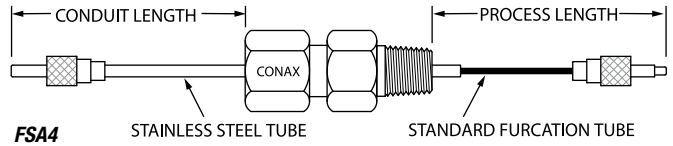
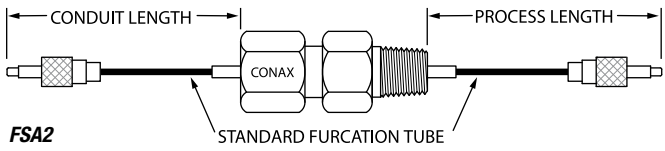
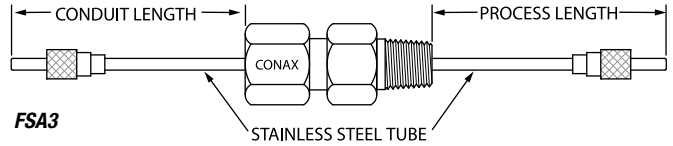
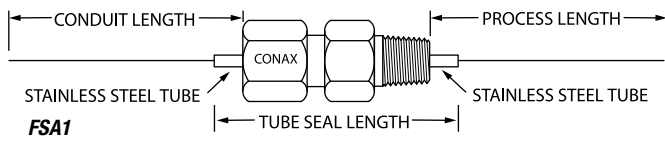
Specifications

- Helium Leak Rate: 1×10^{-6} scc/sec typical
- Transmission Loss: Less than 0.3 db typical (not including connectors)
- Pressure Range: 1000 PSIG (70 bar) standard
- Temperature Range: -4 °F to +185 °F (-20 °C to +85 °C). Higher temperature models are available in some configurations. Please consult factory.

Catalog Numbering System

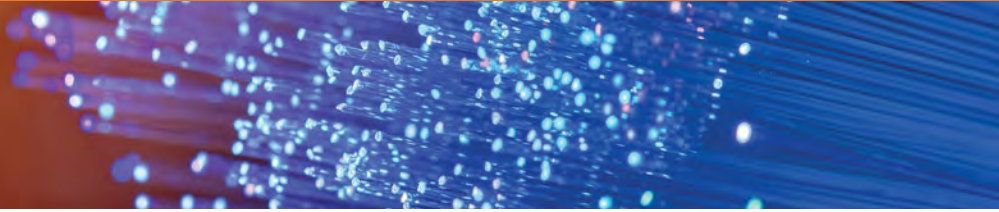


Model Type	Fiber Core Size	Tube Seal Length	Mounting Seal Fitting (Optional)	Conduit Length	Process Length	Connector Termination, Conduit Side	Connector Termination, Process Side
FSA1	0 8.3 μm	1 55 mm (2.0") not available for Model FSA3	XX No Fitting	(in mm)	(in mm)	XX No Connector	XX No Connector
FSA2	1 62.5 μm	2 76 mm (3.0")	See the appropriate catalog section to determine proper seal fitting callout. Will accept PG, MK, MHM, MHC or PGS style fitting.			905 SMA 905	905 SMA 905
FCA2B low outgassing	2 100 μm	3 102 mm (4.0")				906 SMA 906	906 SMA 906
FSA3	4 400 μm	4 114 mm (4.5")				ST ST	ST ST
FSA4	6 600 μm	5 127 mm (5.0")				FST ST with female adapter	FST ST with female adapter
FCA4B low outgassing	7 700 μm	6 152 mm (6.0")				FC FC	FC FC
	9 Customer supplied fiber				FC/PC FC with PC Polish	FC/PC FC with PC Polish	
					FC/APC FC with APC, 8° Angle Polish	FC/APC FC with APC, 8° Angle Polish	
					SC/APC SC with APC, 8° Angle Polish	SC/APC SC with APC, 8° Angle Polish	



FSA SERIES

FCA High Performance Fiber Cable Assemblies



Conax Technologies offers high performance cable assemblies for use in applications such as laser delivery systems, telecommunications, fiber-to-fiber connections, test & measurement systems, and research. These cable assemblies feature high quality, reliable factory terminations and are available in a variety of lengths, fiber types and connection styles. Each cable assembly can be optically tested for connection losses.

Features

- Available with or without connector terminations
- Standard fiber core sizes available: 8.3, 62.5, 100, 200, 400 micron and larger
- Can build cable using customer-supplied fiber
- Protection Tubing: Models FCA1 and FCA2 use a standard furcation tube (black in color) constructed of a polypropylene inner tube with a dried Kevlar™ Aramid yarn strength member and a 3.0 mm outer polyethylene jacket. These models are also available with a low

outgassing furcation tube (blue in color) constructed of a PVDF inner jacket with a dried Kevlar™ Aramid yarn strength member and a 3.0 mm PVDF outer jacket.

- Model FCA3 uses the standard furcation tube with a stainless steel overbraid. Please specify FCA1B or FCA2B for this feature.

Specifications

- Transmission Loss: Less than 0.3 db typical (not including connectors)
- Temperature Range: -4 °F to +185 °F (-20 °C to +85 °C). Higher temperature models are available in some configurations. Please consult factory.

Benefits

- Rugged construction
- Fiber optic cable is protected inside the sheath
- Uses low outgassing materials

Catalog Numbering System



Example: **FCA2B-4-1000-ST/ST**

Model Type	Fiber Core Size	Overall Length (in mm)	Connector Termination, Conduit Side	Connector Termination, Process Side
FCA1	0 8.3 μm		XX No Connector	XX No Connector
FCA1B low outgassing	1 62.5 μm		905 SMA 905	905 SMA 905
FCA2	2 100 μm		906 SMA 906	906 SMA 906
FCA2B low outgassing	3 200 μm		ST ST	ST ST
FCA3	4 400 μm		FST ST with female adapter	FST ST with female adapter
	6 600 μm		FC FC	FC FC
	7 700 μm		FC/PC FC with PC Polish	FC/PC FC with PC Polish
	9 Customer supplied fiber		FC/APC FC with APC, 8° Angle Polish	FC/APC FC with APC, 8° Angle Polish
			SC/APC SC with APC, 8° Angle Polish	SC/APC SC with APC, 8° Angle Polish



FCA1



FCA3



FCA2



FCA2 with stainless steel connector on one end and ST-to-ST adapter on the opposite end.

FCA SERIES

