

DIAMOND

Fiber Optic Components

F-SMA (SMA 905)

CABLE ASSEMBLIES AND ADAPTERS

Diamond offers two different F-SMA multimode connector types, depending on the laser beam power level and the specific application. The standard version connector used with multimode 50µm fiber for telecomm applications and the large core multimode fiber version for higher power levels, primarily found in industrial and medical applications.

Diamond also offers the F-SMA PSi connector, which is based on free standing fiber technology and is available in mode guider and mode stripper versions. (for more details, please refer to the F-SMA PSi datasheet).

For F-SMA connectors used in free space applications, Diamond offers the F-SMA Interface Module (IMOD), which is a half adapter with high precision, repeatable positioning in both axial and radial directions.

FEATURES

- ▶ Tight mechanical tolerances
- ▶ Suitable for MM fibers from 100µm up to 1200µm

SPECIFICATIONS (F-SMA MM 50µm STANDARD)

	MULTIMODE 0°	UNITS	TEST CONDITIONS
Insertion Loss (IL)	typ. 0.8	dB	IEC 61300-3-4; λ = 850 nm
Return Loss (RL)	typ. 12	dB	IEC 61300-3-6; λ = 850 nm
Repeatability of IL	max. ±0.4	dB	IEC 61300-2-2; λ = 1300/1550 nm
Operating temperature	-40/+85*	°C	
Storage temperature	-40/+90*	°C	
Strain relief (cable)	>200	N	

* May be further limited by cable specifications

STANDARDS

- ▶ IEC 61754-22 Fibre optic connector interfaces - Part 22: Type F-SMA connector family

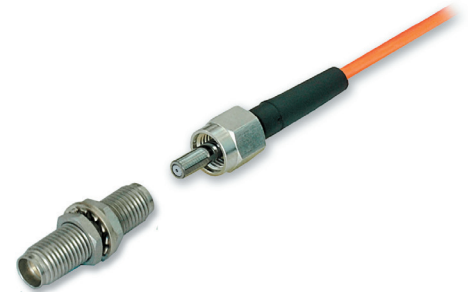
AVAILABLE AS

- ▶ Terminated connector
- ▶ Connector set, (to be terminated with Diamond special equipment)

MECHANICAL TOLERANCES

	CONNECTOR F-SMA	ADAPTER	RECEPTACLE (IMOD)	UNITS	STANDARDS
	Ferrule diameter tolerance	Sleeve diameter tolerance	Sleeve diameter tolerance		
Diamond	1	1.2	1	µm	
Type/Grade I	6	15	4	µm	IEC 61754-22
Type/Grade II	20	n.d.	15	µm	IEC 61754-22
Type/Grade III	n.d.	n.d.	25	µm	IEC 61754-22

MM STANDARD AND LARGE CORE



Standard F-SMA with 3.175mm hard metal ferrule.



Interface Module IMOD F-SMA

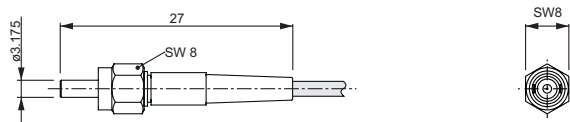
CONNECTOR TYPE AND DIMENSIONS

F-SMA connectors 900 μm - 3 mm boot style

Available types: **F-SMA**

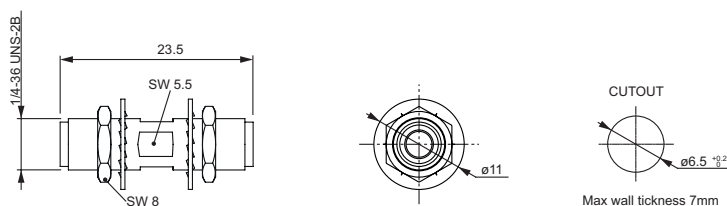
Ferrule: Flat ferrule, 3.175 mm (1/8")
Tungsten carbide with titanium insert

External parts: Inox



ADAPTER TYPE AND DIMENSIONS

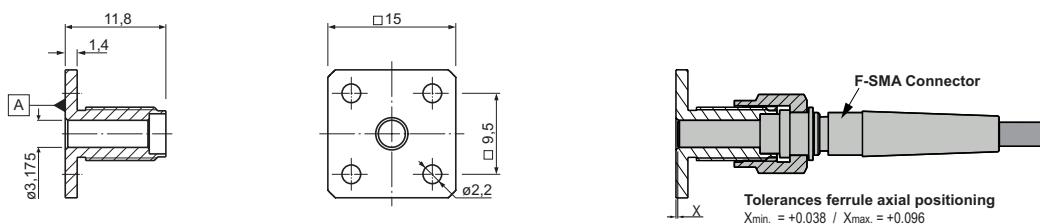
F-SMA mating adapter



Material: Rigid copper-nickel alloy sleeve
External parts: Inox, 1/4"-36 UNS SMA threading

INTERFACE MODULE (IMOD) TYPE AND DIMENSIONS

IMOD F-SMA 0°



ORDER INFORMATION

Please refer to the part numbers provided in the separate P/N list.

For assemblies or other configurations, please contact your nearest local Diamond representative or fill in the contact form available on the www.diamond-fo.com website.