DIAMOND
Fiber Optic Components

CABLE ASSEMBLIES AND ADAPTERS

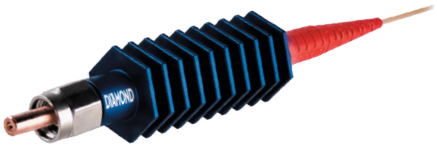
F-SMA PSi

MM medium-high power

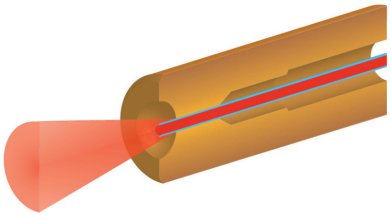
Diamond F-SMA PSi connectors are mainly used for medium to high power laser delivery in industrial, medical and military applications. These connectors are designed to be used at the focal point of a laser system with the purpose of collecting maximum light and can withstand up to several hundred watts of power. They can also be used on the laser output side as well. The ferrule and the connector body are made of conductive materials that provide improved heat dissipation compared to standard multimode connectors. The free-standing fiber technology prevents the burning of epoxy and the melting of the ferrule because the fiber tip is surrounded by air. These connectors also feature an axially tunable fiber fixation that allows a precise adjustment of the fiber end face permitting the optimization of the coupling efficiency.
Laser safety can be ensured by using optional steel-armored protection tubes. A thermal polishing process is also available as an option, which can ensure a defect-free surface, thus improving power handling capabilities.

F-SMA PSi connectors are available in mode guider and mode stripper versions. The mode guider version allows all the modes, including cladding modes, to be transmitted with minimum attenuation, resulting in less heat up and more power available at the patchcord output. It is mainly used in conjunction with fibers that guide cladding modes (e.g. fibers with low index coating or double clad fibers).
The mode stripper version removes unwanted cladding modes from the fiber and is used when emphasis is made on the preservation of the Beam parameter Product (small spot diameter and low numerical aperture). The additional heat resulting from the absorption of cladding modes can be dissipated through the anodized aluminum heat dissipator.

F-SMA PSi mode guider



F-SMA PSi mode stripper



PSi free standing

Interface Module IMOD F-SMA

FEATURES AND BENEFITS

- Free standing fiber technology
- Copper ferrule
- Optimized heat dissipator for natural and forced convection
- For MM fibers from 100µm to 1000µm
- Thermal polishing process (optional)
- AR coating (optional)

STANDARDS

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

AVAILABLE AS

- Terminated connector:
  F-SMA PSi mode guider, F-SMA PSi mode stripper, other connectors upon request

SPECIFICATIONS

	MODE GUIDER	MODE STRIPPER	UNITS
Core eccentricity	5	5	microns
Axial fiber position	10	10	microns
Optical power handling - core*	220	220	W
Optical power handling - cladding*		5 (15**)	W

* Tested with 200µm laser @808nm on 200/240µm fiber. Results may vary on different setups
** With forced convection

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Specifications subject to change without notice

BDD 1951797 05_17

CONNECTOR TYPE AND DIMENSIONS

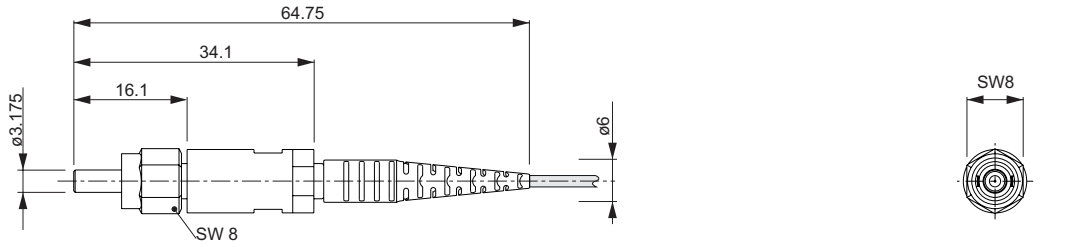
SMA PSi connectors 900 µm - 3 mm boot style

Available types: **F-SMA PSi mode guider**
F-SMA PSi mode stripper

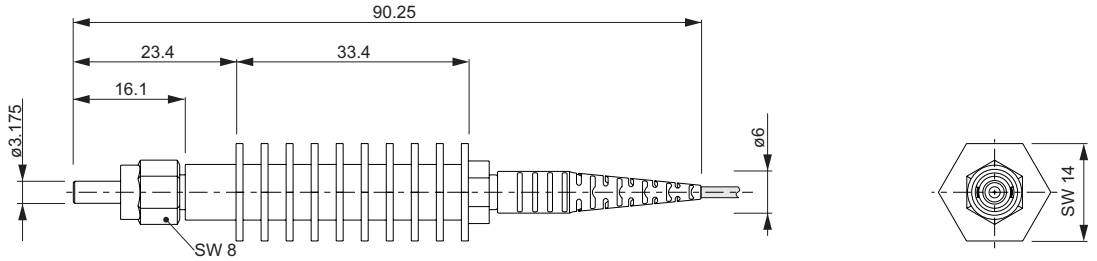
Ferrule: Copper ferrule, 3.175 mm (1/8")
Freestanding technology

External parts: Anodized aluminum

F-SMA PSi mode guider

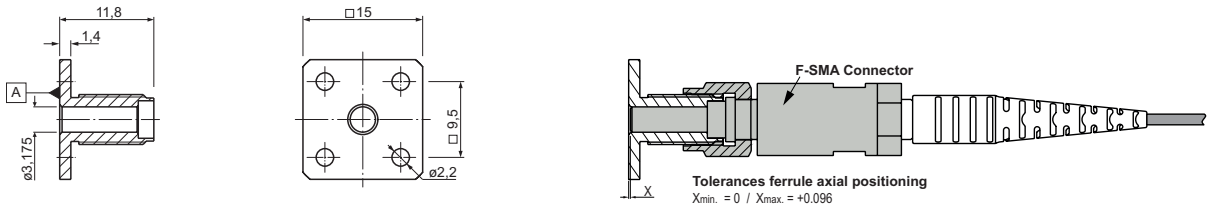


F-SMA PSi mode stripper



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 configuration, please contact your nearest local Diamond representative or fill in the contact form available on the **www.diamond-fo.com** website.