

DIAMOND

Fiber Optic Components

CABLE ASSEMBLIES AND ADAPTERS

Diamond offers a wide range of connectors for Polarization Maintaining (PM) fiber, and termination services designed to meet the most challenging optical performance requirements. Utilizing our Active Core Alignment process, we are able to independently optimize both Insertion Loss (IL) and Extinction Ratio (ER) eliminating the need to compromise one performance feature over another. Diamond provides high performance PM terminations directly to both passive and active optical devices as well as for pigtails and patch cords assemblies. Diamond's standard assemblies are made with Panda PM fiber for operation at 1310nm or 1550nm wavelengths and are available in both PC and APC finishes in various connector styles. All standard assemblies are 100% tested for Insertion Loss, Return Loss and Extinction Ratio. Other fiber types such as Bow Tie, Oval inner clad, Oval core, D-Fiber, connector styles, and wavelengths requirements can be accommodated to meet your specific application needs.

FEATURES

- ▶ High Extinction Ratio
- ▶ Low Insertion Loss
- ▶ High Return Loss
- ▶ Excellent IL Repeatability
- ▶ E-2000™, SC, FC, LSA (DIN), and DMI connector styles (Other connector styles available upon request)
- ▶ E-2000™ available as PM Standard, IP65 and/or IP65/EtO sterilizable version (with cutout for E-2000™ LED connectors)

APPLICATIONS

- ▶ Measurement Instrumentation
- ▶ Mechanical and Thermal Sensors
- ▶ Medical devices
- ▶ High Bandwidth Transmission

AVAILABLE AS

- ▶ Terminated connector

CONNECTOR SPECIFICATIONS

	SINGLE MODE 0° PC	SINGLE MODE 8° APC	UNITS	TEST CONDITIONS
Insertion Loss (IL)	typ. 0.2 max. 0.5	typ. 0.2 max. 0.5	dB	IEC 61300-3-4; $\lambda = 1300/1550\text{nm}$
Return Loss (RL)	typ. 40 min. 30	typ. 70* min. 55	dB	IEC 61300-3-6; $\lambda = 1300/1550\text{nm}$
Repeatability of IL	max. ± 0.1		dB	IEC 61300-2-2; $\lambda = 1300/1550\text{nm}$
Extinction Ratio	typ. 28 min. 23		dB	

* Measured with high precision reflectometer

NOTES - Optical performance values based on use of Panda PM fiber, use of other types or wavelengths may impact performance values.
 - Diamond performs extinction ratio (ER) measurements using the crossed-polarizer method (similar to IEC 61300-3-40). This method requires the use of Glan-Thomson polarizers and of an incoherent light source (bandwidth > 10 nm). As a guideline, the following table shows the measurement accuracy that is achieved with our setup:
 ER nominal value and accuracy: 20 dB ± 1.5 dB 25 dB ± 2.5 dB 30 dB ± 3.5 dB

NOTE For assemblies containing either active or passive optical devices, please provide copies of the technical datasheet, p/n, user manual, warranty certificate and any other relevant documents for the optical device(s).



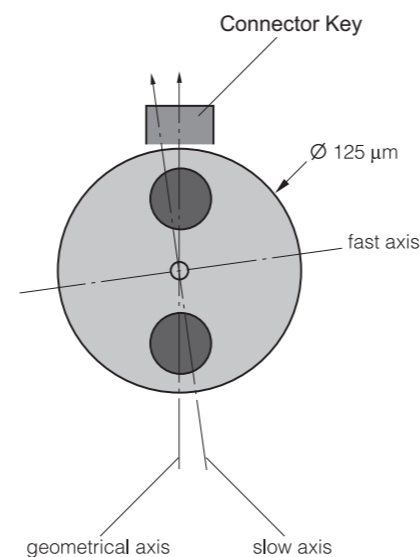
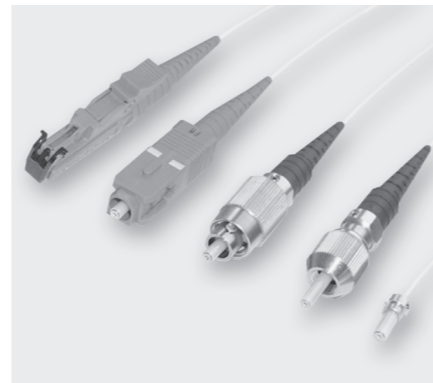
DIAMOND SA • Via dei Patrizi 5 • CH-6616 Losone • Switzerland
 Tel. +41 91 785 45 45 • Fax +41 91 785 45 00 • e-mail info@diamond-fo.com

www.diamond-fo.com

PM

(Polarization Maintaining)

E-2000™ PM - SC PM - FC PM
 LSA (DIN) PM - DMI PM



Diamond standard PM alignment performed to the slow axis

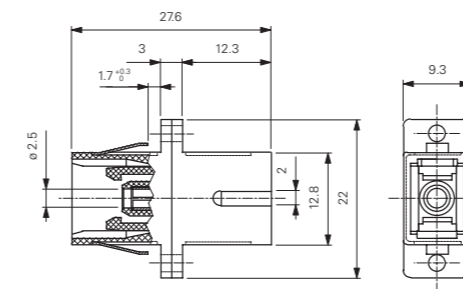
Specifications subject to change without notice

BDD 1950115 03_11

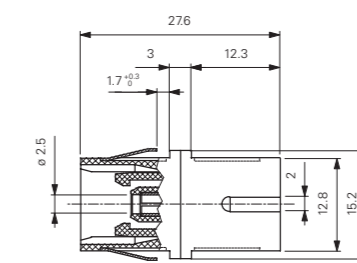
D

SC-PM mating adapters

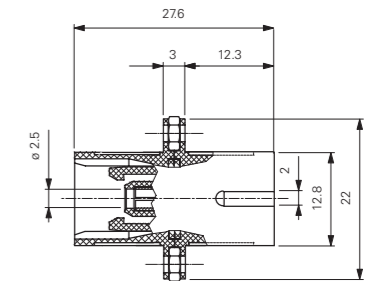
Screw and clip fixing type



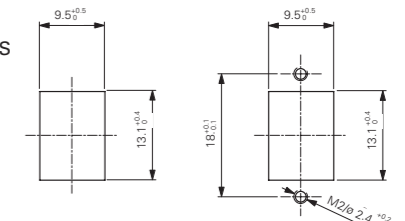
Small clip fixing type



Screw nut fixing type

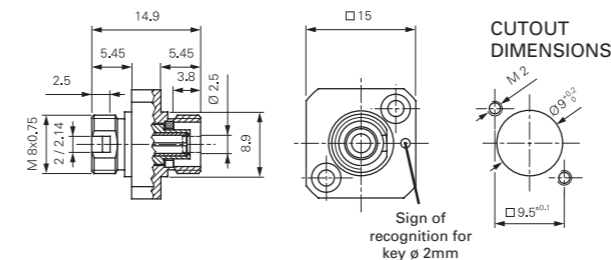


CUTOUT DIMENSIONS

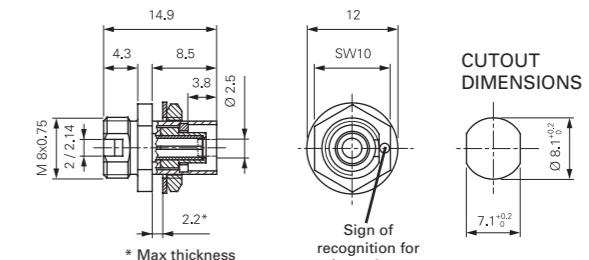


FC PM mating adapters

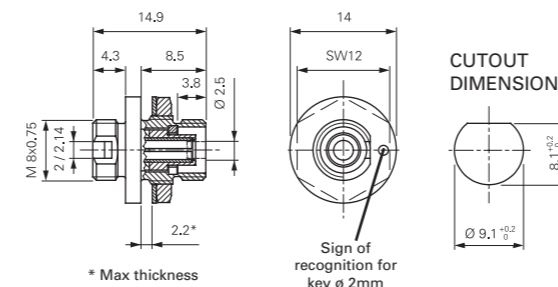
Square flange



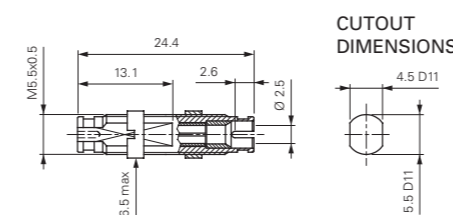
Hexagonal flange



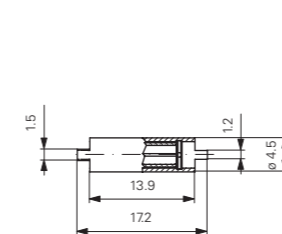
Round flange



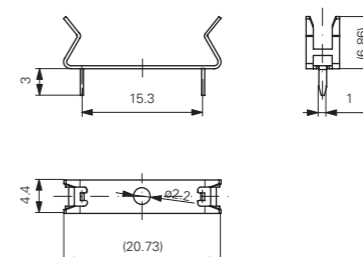
LSA (DIN) PM mating adapter



DMI PM mating adapter



DMI-PM mating adapter clip

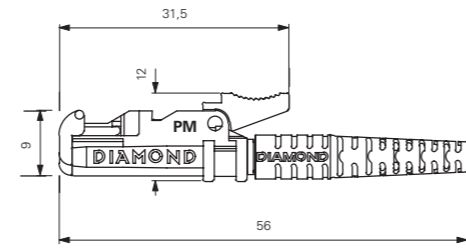


CONNECTOR TYPES AND DIMENSIONS

E-2000™-PM Connectors

Available types: **E-2000™ PM - PC**
E-2000™ PM - APC

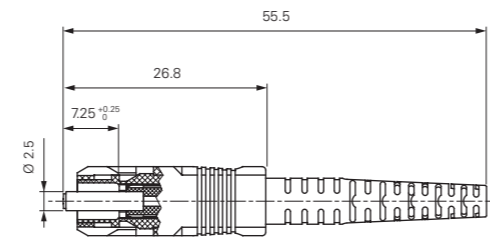
Ferrule material: Zirconia/metal insert
External parts: Plastic



SC-PM Connectors

Available types: **SC PM - PC**
SC PM - APC

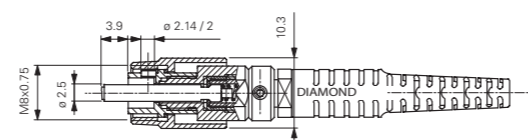
Ferrule material: Zirconia/metal insert
External parts: Plastic



FC-PM Connectors

Available types: **FC PM - PC (Key 2.14 or 2 mm)**
FC PM - APC (Key 2.14 or 2 mm)

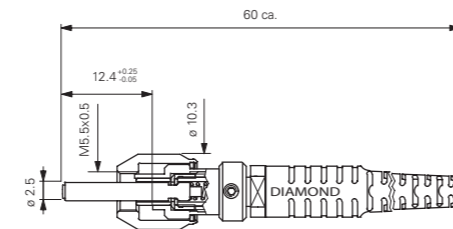
Ferrule material: Zirconia/metal insert
External parts: Ni-plated brass



LSA (DIN)-PM Connectors

Available types: **DIN PM - PC**
DIN PM - APC

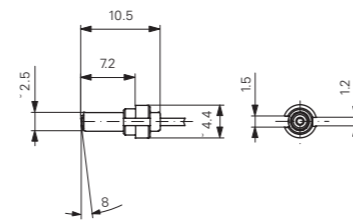
Ferrule material: Zirconia/metal insert
External parts: Copper-nickel alloy



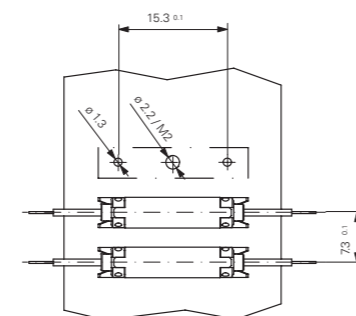
DMI-PM Connectors

Available types: **DMI PM - PC**
DMI PM - APC

Ferrule material: Zirconia/metal insert
External parts: Metal



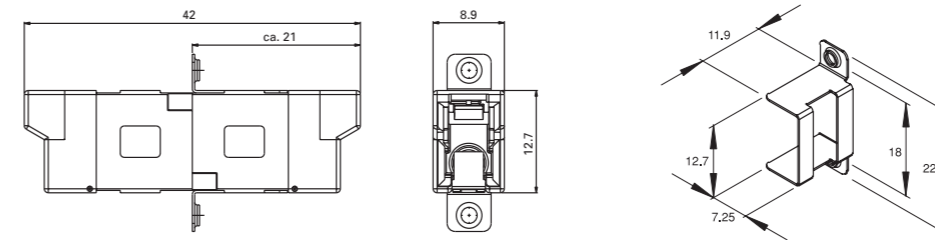
MOUNTING INSTRUCTION



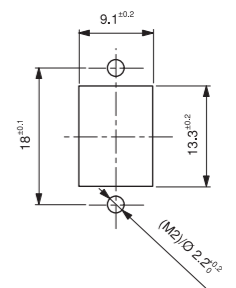
NOTE Standard plastic connector and adapter colors are Blue for PC and Green for APC.

ADAPTER TYPES AND DIMENSIONS

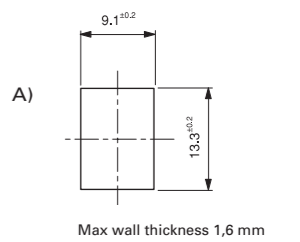
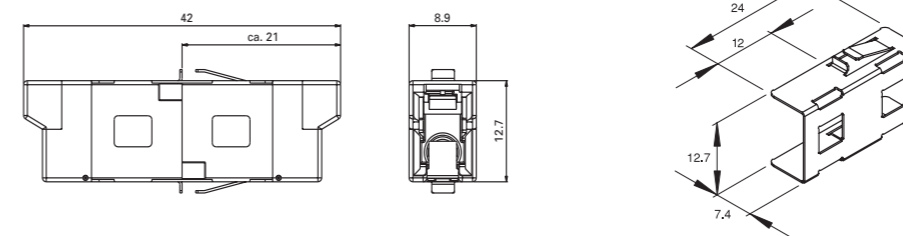
E-2000™ Simplex PM mating adapter with screw fixing clip



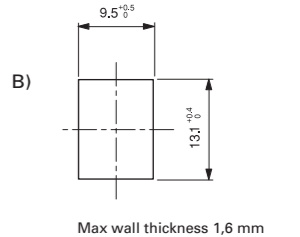
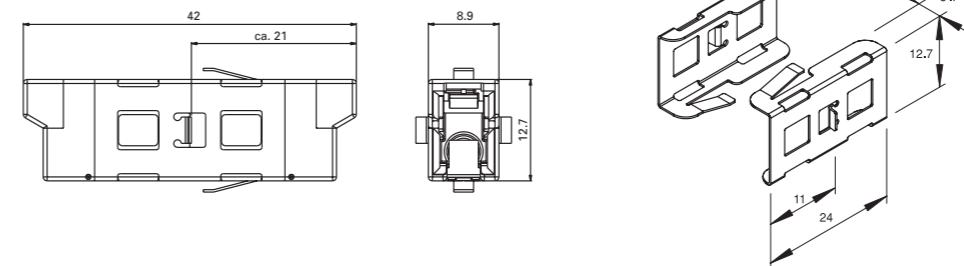
CUTOUT DIMENSIONS



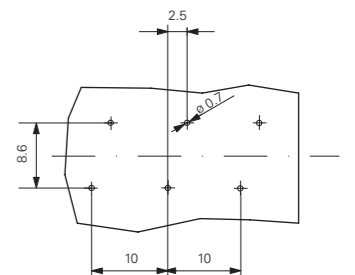
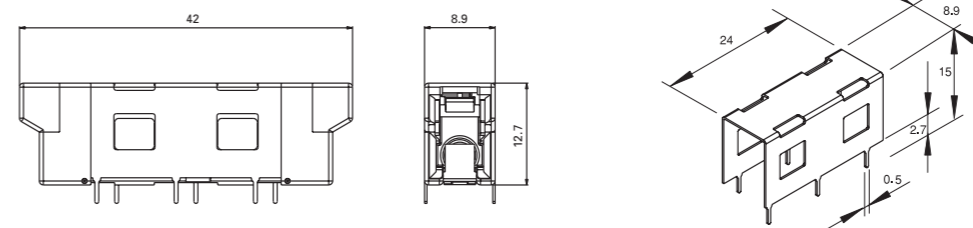
E-2000™ Simplex PM mating adapter with quick fixing clip (Type A: for higher packaging density within E-2000™ cutout)



E-2000™ Simplex PM mating adapter with quick fixing clips (Type B: for excellent stability within SC cutout.)



E-2000™ Simplex PM mating adapter with print fixing clip



ORDER INFORMATION

When ordering mating adapters and fixing clips, please refer to the part numbers provided in the enclosed P/N list. When ordering pigtailed or cable assemblies, please refer to the **connector type description** in the Available types section, and fill in the Simplex, Duplex, Multiple fiber Assemblies order form according to **those** denominations.