

# DIAMOND

## Fiber Optic Components

### CABLE ASSEMBLIES AND ADAPTERS

In order to ensure the highest technical performance and to provide an optimum solution for high density packaging, DIAMOND has developed the Diamond Micro Interface (DMI) connection system.

Thanks to its minimal space requirement, this system is an ideal solution for Printed Circuit Board (PCB) applications as well as a high quality interface between active and passive components of fiber optic installations. As such it has been used to replace splices, in some applications, improving the modularity at a low height budget impact.

DMI connectors are based on standard  $\varnothing 2.5$  mm ferrules and are designed to operate with multimode and single mode fibers, PC  $0^\circ$  as well as APC  $8^\circ$  polished. Furthermore the DMI is available in different technologies.

### FEATURES AND BENEFITS

- ▶ Minimum space requirement (footprint of 4.5 x 21 mm)
- ▶ Consistent high performance solution
- ▶ Available in SM, MM and PM fibers
- ▶ Available in PS (PS+ 16W, PSf, PSm) and PM+ technology
- ▶ Standard active fiber core aligned DIAMOND  $\varnothing 2.5$  mm ferrule
- ▶ Easy installation by use of standard clip-on system.
- ▶ DMI assembly tool is available.

### AVAILABLE AS

- ▶ Terminated connector

### SPECIFICATIONS

STANDARD	MULTIMODE $0^\circ$ PC	SINGLE MODE $0^\circ$ PC	SINGLE MODE $8^\circ$ APC	UNITS	TEST CONDITIONS
Insertion Loss (IL) Random	typ. 0.2 max. 0.4	typ. 0.15 max. 0.4	typ. 0.15 max. 0.4	dB	IEC 61300-3-4; $\lambda = 1300/1550$ nm
Return Loss (RL)	min. 40	min. 50	min. 70*	dB	IEC 61300-3-6; $\lambda = 1300/1550$ nm
<b>Low IL Version</b>					
Insertion Loss (IL) Random	-	typ. 0.1 max. 0.25	typ. 0.1 max. 0.25	dB	IEC 61300-3-4; $\lambda = 1300/1550$ nm
Return Loss (RL)	-	min. 50	min. 75*	dB	IEC 61300-3-6; $\lambda = 1300/1550$ nm
Repeatability of IL	max. $\pm 0.05$			dB	IEC 61300-2-2; $\lambda = 1300/1550$ nm
Service life	500 mate/demate cycles				
Operating temperature	-40/+85**			$^\circ\text{C}$	

\* Measured with high precision reflectometer

\*\* May be further limited by fiber specifications

Please note: for optical values for PS technologies and PM fiber, refer to separate datasheets

## DMI

(Diamond Micro Interface)

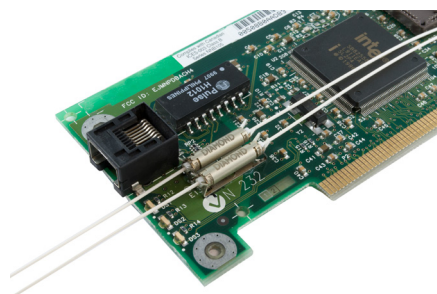
SINGLE MODE	PC/APC
MULTIMODE	PC
PS	PC/APC
PS+	PC
PSf	PC/APC
PM/PM-PS/ PM-PSf	PC/APC
PM+	PC/APC



DMI components



DMI assembled

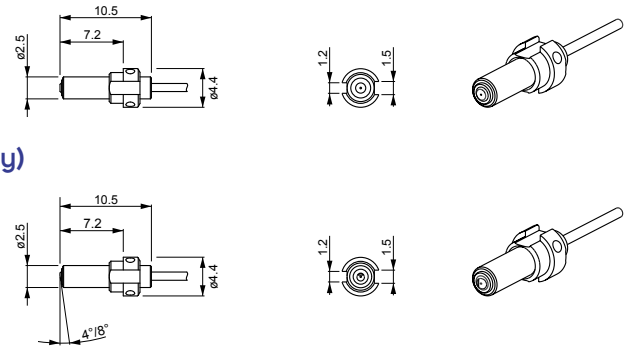


### CONNECTOR TYPES AND DIMENSIONS

DMI connectors on 900 μm fiber

Available types: **DMI - PC/APC**  
**DMI - APC 4° (only for PS technology)**  
**DMI - PC/ APC Low IL**

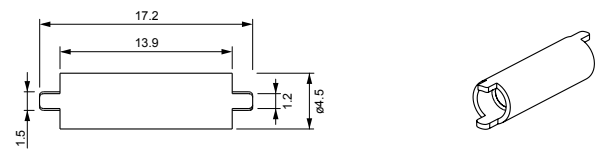
Ferrule material: Zirconia/metal insert  
 External parts: Metal



### ADAPTER TYPES AND DIMENSIONS

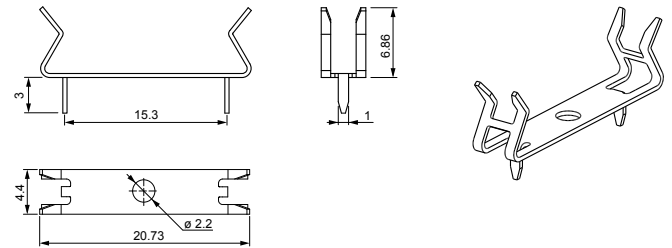
DMI mating adapters

External parts: Metal  
 Mating sleeve: Zirconia  
 Cap colors: Black for MM PC 0°  
 Blue for SM PC 0°  
 Green for SM APC 8°  
 Red for PS technology

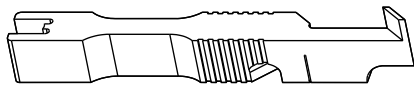


DMI mating adapters clip

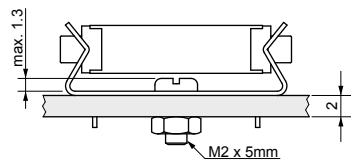
External parts: Metal (Cu Be2; tinned solderable)



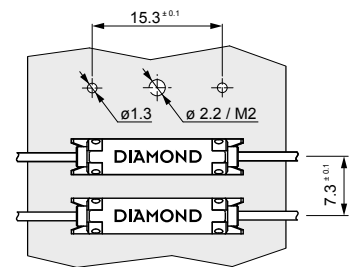
Mounting tool and instructions:



PN: 1032053  
 DMI mounting tool



PN: 1009209  
 DMI Adapter Clip CuBe Nickel coated  
 (Screw not included)



### ORDER INFORMATION

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](http://www.diamond-fo.com) website.