

DIAMOND

Fiber Optic Components

The Diamond Multiple Fiber System (MFS) combines Diamond's advanced polishing technology and the flexibility of the MT ferrule resulting in a high density and performance modular solution, which can be utilized in both back plane and front panel applications.

The MFS plug are available in 4-, 8-, & 12- fiber versions, PC and APC finishes, and support both multi-mode and single mode applications. The MFS back plane modules are compact, supporting up to 48 fibers in a 24.8 x 15.8 mm footprint and are designed for compatibility and integration with standard metric back plane systems. Each module can accept up to 4 plugs, which can be added or removed incrementally. The MFS is the only standardized solution available on the market today and is compliant with both EN 186310 and TIA/EIA 604-15.

FEATURES AND BENEFITS

- Each single connector supports up to 12 fibers
low cost per termination for high density applications
- Suitable long pre-guiding tracks
high repeatability and stability
- Precision molded MT ferrule and advanced polishing process
lower IL and higher repeatability
- EN 186310 and TIA/EIA 604-15 compliant

APPLICATIONS

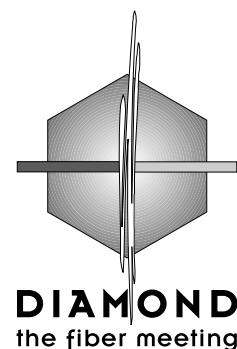
- Patch cords and Fan-Out assemblies
- Data and Telecommunication Networks, industrial

SPECIFICATIONS

STANDARD	Multimode	Single mode 0° PC	Single mode 8° APC	Units	Test conditions
Insertion Loss (IL)	typ 0.35	typ 0.45 max 1	typ 0.45 max 1	dB	IEC 61300-3-4; l = 1300/1550nm
Return Loss (RL)	typ 30	min 40	min 60*	dB	IEC 61300-3-6; l = 1300/1550nm
Repeatability of IL	max ±0.1			dB	Over service life
Service life	1000 mate/demate cycles				
Operating temperature	-40 / +85**			°C	
Storage temperature	-40 / +90**			°C	
Strain relief (cable)	> 50			N	

* Measured with high precision reflectometer

** May be further limited by cable specifications

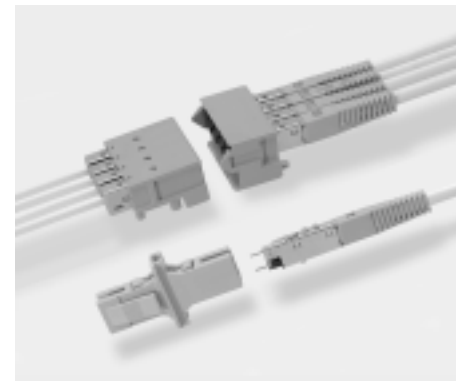


DIAMOND SA
Via dei Patrizi 5
CH-6616 LOSONE
Tel. ++41-91/785 45 45
Fax ++41-91/785 45 00
e-mail: info@diamond-fo.com

MFS

(MULTIPLE FIBER SYSTEM)

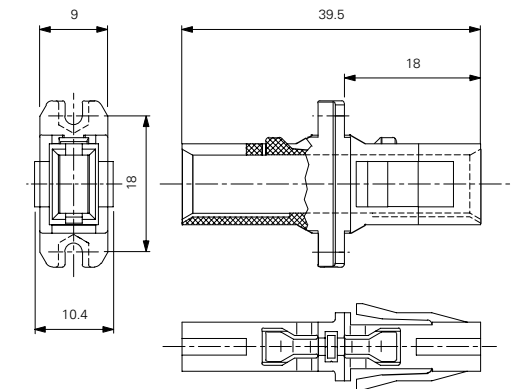
SINGLE MODE / MULTIMODE



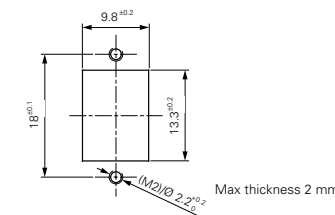
MATING ADAPTER

Type designation: **MF-A3**
External parts: Plastic

Color	Order Number
blue (SM-PC)	166 - 306 - 901 V 001
black (MM)	166 - 306 - 901 V 003
green (APC)	166 - 306 - 901 V 002



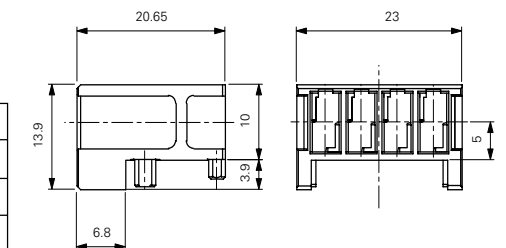
CUTOUT DIMENSIONS FOR MF-A3



PCB MODULE

Type designation: **MF-B2**
External parts: Plastic

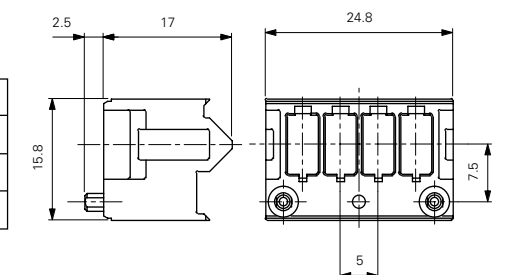
Color	Order Number
blue (SM-PC)	070 - 035 - 011 V 001
black (MM)	070 - 035 - 011 V 003
green (APC)	070 - 035 - 011 V 002



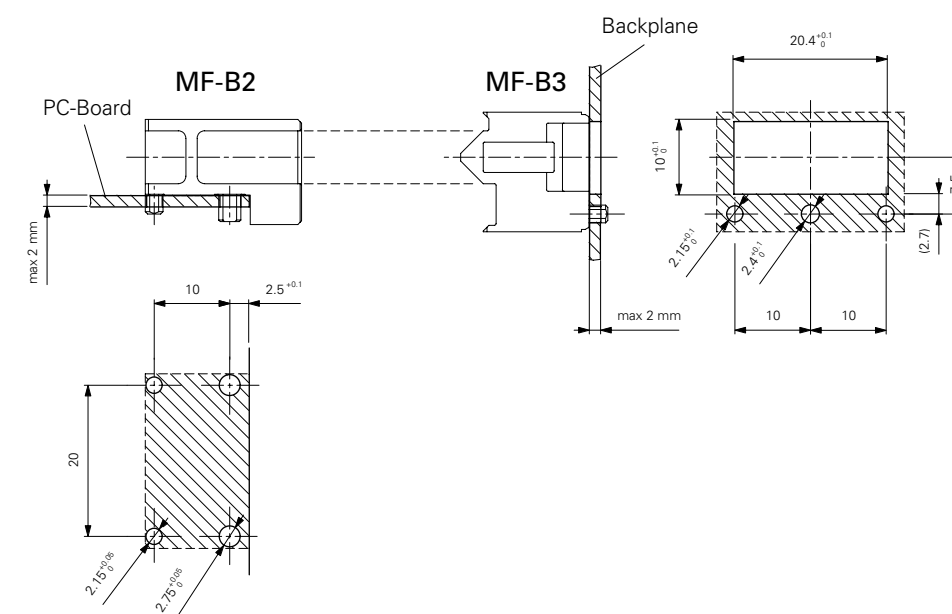
BACKPLANE MODULE

Type designation: **MF-B3**
External parts: Plastic

Color	Order Number
blue (SM-PC)	070 - 035 - 010 V 001
black (MM)	070 - 035 - 010 V 003
green (APC)	070 - 035 - 010 V 002



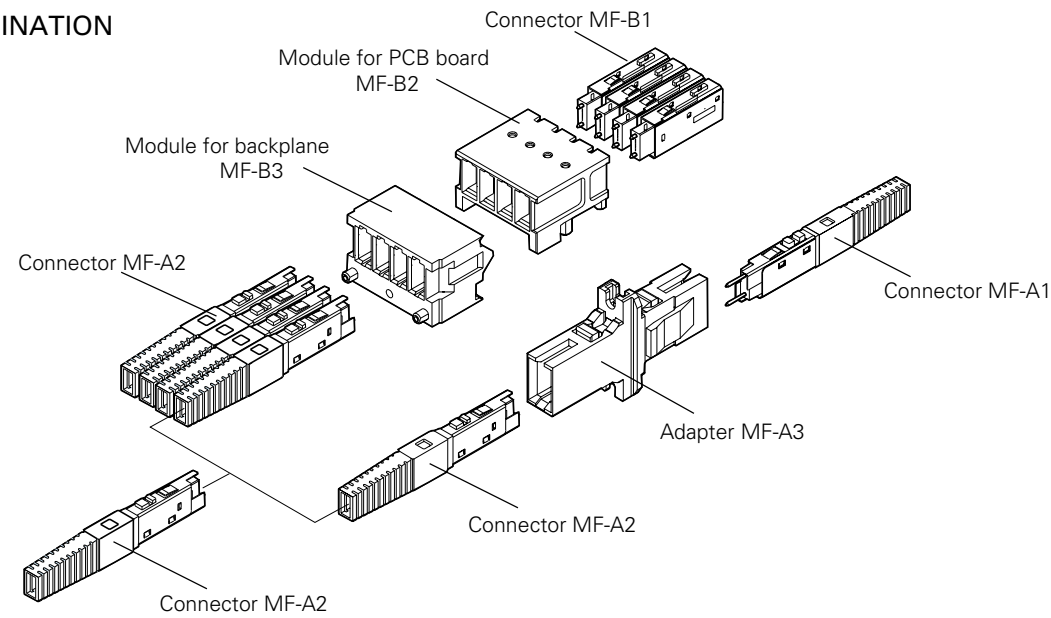
CUTOUT DIMENSIONS FOR MF-B2/MF-B3



Specifications subject to change without notice

002-037-211P001083

POSSIBLE COMBINATION



CONNECTOR MF-A1

Ferrule style: MT (Plastic)
External parts: Metal

SINGLE MODE PC (WITH PINS)

Cableboot: blue

Number of fiber Dimensions	Order Number Terminated patchcord
4x9/125	1 A 0 - x A 0 - 0 0 1 L x x x
4x9/125 buffered	1 A 0 - x A 0 - 0 0 2 L x x x
8x9/125	1 A 1 - x A 1 - 0 0 1 L x x x
8x9/125 buffered	1 A 1 - x A 1 - 0 0 2 L x x x
12x9/125	1 A 2 - x A 2 - 0 0 1 L x x x
12x9/125 buffered*	1 A 2 - x A 2 - 0 0 2 L x x x

1 2 3 4

MULTIMODE PC (WITH PINS)

Cableboot: black

Number of fiber Dimensions	Order Number Terminated patchcord
4x50/125	1 A 6 - x A 6 - 0 0 1 L x x x
4x50/125 buffered	1 A 6 - x A 6 - 0 0 2 L x x x
8x50/125	1 A 7 - x A 7 - 0 0 1 L x x x
8x50/125 buffered	1 A 7 - x A 7 - 0 0 2 L x x x
12x50/125	1 A 8 - x A 8 - 0 0 1 L x x x
12x50/125 buffered*	1 A 8 - x A 8 - 0 0 2 L x x x

1 2 3 4

SINGLE MODE APC (WITH PINS)

Cableboot: green

Number of fiber Dimensions	Order Number Terminated patchcord
4x9/125	1 A 3 - x A 3 - 0 0 1 L x x x
4x9/125 buffered	1 A 3 - x A 3 - 0 0 2 L x x x
8x9/125	1 A 4 - x A 4 - 0 0 1 L x x x
8x9/125 buffered	1 A 4 - x A 4 - 0 0 2 L x x x
12x9/125	1 A 5 - x A 5 - 0 0 1 L x x x
12x9/125 buffered*	1 A 5 - x A 5 - 0 0 2 L x x x

1 2 3 4

* Available upon request

ORDER NUMBER CODES

- ¹ Connector code
- ² Connector code for termination on other end of assembly
 - For pigtails: insert 000
 - For patch assemblies: insert connector code for other connector
- ³ Code for fiber or cable
- ⁴ Length in meters

CONNECTOR MF-A2

Ferrule style: MT (Plastic)
External parts: Metal

SINGLE MODE PC (WITHOUT PINS)

Cableboot: blue

Number of fiber Dimensions	Order Number Terminated patchcord
4x9/125	2 A 0 - x A 0 - 0 0 1 L x x x
4x9/125 buffered	2 A 0 - x A 0 - 0 0 2 L x x x
8x9/125	2 A 1 - x A 1 - 0 0 1 L x x x
8x9/125 buffered	2 A 1 - x A 1 - 0 0 2 L x x x
12x9/125	2 A 2 - x A 2 - 0 0 1 L x x x
12x9/125 buffered*	2 A 2 - x A 2 - 0 0 2 L x x x

1 2 3 4

MULTIMODE PC (WITHOUT PINS)

Cableboot: black

Number of fiber Dimensions	Order Number Terminated patchcord
4x50/125	2 A 6 - x A 6 - 0 0 1 L x x x
4x50/125 buffered	2 A 6 - x A 6 - 0 0 2 L x x x
8x50/125	2 A 7 - x A 7 - 0 0 1 L x x x
8x50/125 buffered	2 A 7 - x A 7 - 0 0 2 L x x x
12x50/125	2 A 8 - x A 8 - 0 0 1 L x x x
12x50/125 buffered*	2 A 8 - x A 8 - 0 0 2 L x x x

1 2 3 4

SINGLE MODE APC (WITHOUT PINS)

Cableboot: green

Number of fiber Dimensions	Order Number Terminated patchcord
4x9/125	2 A 3 - x A 3 - 0 0 1 L x x x
4x9/125 buffered	2 A 3 - x A 3 - 0 0 2 L x x x
8x9/125	2 A 4 - x A 4 - 0 0 1 L x x x
8x9/125 buffered	2 A 4 - x A 4 - 0 0 2 L x x x
12x9/125	2 A 5 - x A 5 - 0 0 1 L x x x
12x9/125 buffered*	2 A 5 - x A 5 - 0 0 2 L x x x

1 2 3 4

* Available upon request

CONNECTOR MF-B1

Ferrule style: MT (Plastic)
External parts: Metal

SINGLE MODE PC (WITH PINS)

Number of fiber Dimensions	Order Number Terminated patchcord
4x9/125	3 A 0 - x A 0 - 0 0 1 L x x x
8x9/125	3 A 1 - x A 1 - 0 0 1 L x x x
12x9/125	3 A 2 - x A 2 - 0 0 1 L x x x

1 2 3 4

MULTIMODE PC (WITH PINS)

Number of fiber Dimensions	Order Number Terminated patchcord
4x50/125	3 A 6 - x A 6 - 0 0 1 L x x x
8x50/125	3 A 7 - x A 7 - 0 0 1 L x x x
12x50/125	3 A 8 - x A 8 - 0 0 1 L x x x

1 2 3 4

SINGLE MODE APC (WITH PINS)

Number of fiber Dimensions	Order Number Terminated patchcord
4x9/125	3 A 3 - x A 3 - 0 0 1 L x x x
8x9/125	3 A 4 - x A 4 - 0 0 1 L x x x
12x9/125	3 A 5 - x A 5 - 0 0 1 L x x x

1 2 3 4

