

Subminiature, Waterproof Duplex Fiber Optic Connectors

MF10B Series

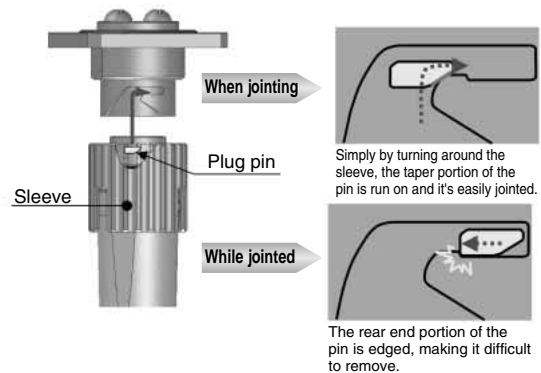
Waterproof

2pos.

Bayonet lock



Highly reliable bayonet lock.



■ Features

1. Micro miniature structure

This micro miniature twin-core waterproof connector consists of a $\phi 1.25\text{mm}$ MU ferrule encased in an internal housing and shell.

2. Integrated structure with excellent vibration and shock resistance

The bayonet lock assures connectors are easily and firmly mated. In addition, mating design resists disengagement, resulting in excellent resistance to vibration and shock, conforming to JIS E 4031 type 5 (vibration) and JIS E 4032 type 2 (shock) for railcar parts.

3. Excellent compatibility with high-intensity, high flexible cables.

For the plug side, a high-intensity optical fiber cable is available for military spec (external cable diameter $\phi 5$ or $\phi 6.5$ mm) is the standard specification.)

This cable is light, flexible and suitable for long-distance link-ups in outdoor events.

* For other cables, please consult factory.

4. Structure with a cleanable ferrule end face

When cleaning the plug ferrule, remove the sleeve from the front to expose the ferrule edge face and thus facilitate cleaning.

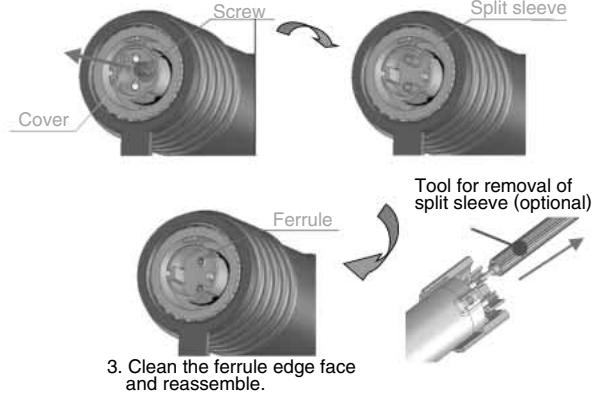
5. Varied panel mounting options

Square flange mounting with 4 screws in 4 positions and internal attachment via hexagon nuts are possible. The square flange type with 4 screws can be used for pitches between between 18 and 20mm.

Ferrule with easy-clean structure

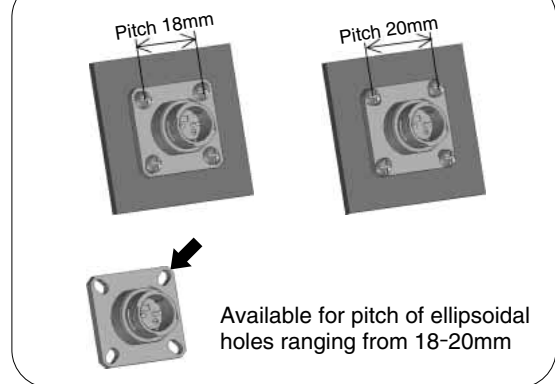
1. Loosen screw and remove cover

2. Remove split sleeve

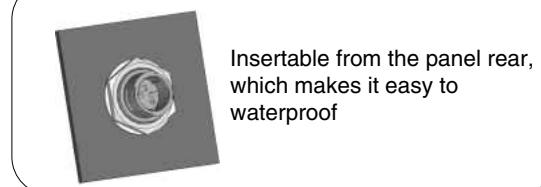


Varied panel attachment method

4-point screw fix type



Hexagon nut fix type



■ Specifications

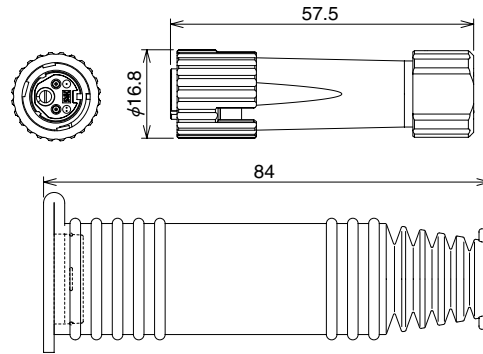
Rating	Operating Temperature Range	-40℃~85℃	Storage Temperature Range	-25℃~75℃
	Item	Test method	Requirements	
Optical characteristics	Insertion loss	Measurement at wave length 1310±20nm(LED)	SM: 1.0 dB MAX. (Typical 0.2 dB) GI: 0.5 dB MAX. (Typical 0.1 dB)	
Mechanical characteristics	Durability (mating/un-mating)	5,000times	1) Insertion loss fluctuation after test:0.3dB max. 2) No visible damage or components dislocation.	
	Tensile strength(axial)	A tensile force to cable axially for at 200N(Cable Dia: φ6.5mm), 100N(Cable Dia: φ5mm),400N(Cable with tension member)	Insertion loss range:≤0.3dB No Looseness,breakage,cracks	
	Flex Resistant	10,000 times at 90 degree,right and left direction.		
	Vibration	2 hours of the right and left,4 hours of the vertical direction at an amplitude of 2.3mm and an acceleration 14.8G.		
	Shock	4 times and 2 directions with the acceleration 88m/s ² and length of effectiveness 0.025s.		
Environmental characteristics	Humidity (Temperature/humidity-cycles)	-10℃ to +65℃, humidity: 90% to 96% 240hours. (24H/cycle×10cycle)	1) Insertion loss fluctuation after test:0.3dB max. 2) No visible damage or components dislocation.	
	Temperature cycle	-40℃ to +75℃, 42 cycles		
	Dry heat	240 hours at +85℃		
	Cold	240 hours at -40℃		
	Salt mist	Salt mist :5% and temperature 35℃ for 1000hours. With the connector hood installed.	No corrosion.	
	Water resistance(mating)	Put the product under water for 1min.With air pressure 4.9kPa.	No air leakage.	

■ Material and Finish

Component	Material	Finishi/Remarks
Housing	Zinc die-casting	Nickel plated / Chrome plated (Black)
Stopper	Synthetic resin	UL94V-0
Rubber hood	Synthetic rubber	——
Spring	Piano wire	Zinc plated
Split sleeve	Zirconia	——

■ Plug

● Cable without tension member (Cable dia: $\phi 5\text{mm}$, 6mm)



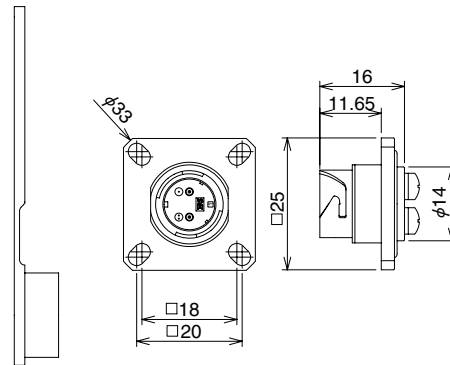
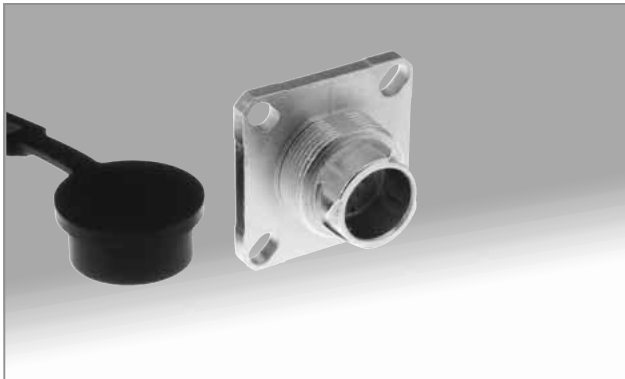
Part number	CL No.	Plating
MF10B-WP5C01-0200	CL709-1020-8-00	Nickel
MF10B-WP5CH01-0200	CL709-1015-8-00	Chrome(black)
MF10B-WP6.5C01-0200	CL709-1004-1-00	Nickel
MF10B-WP6.5CH01-0200	CL709-1007-0-00	Chrome(black)

● Cable with tension member (Cable dia: $\phi 7\text{ mm}$)

Part number	CL No.	Plating
MF10B-WPS7C01-0200	CL709-1018-6-00	Nickel
MF10B-WPS7CH01-0200	CL709-1024-9-00	Chrome(black)

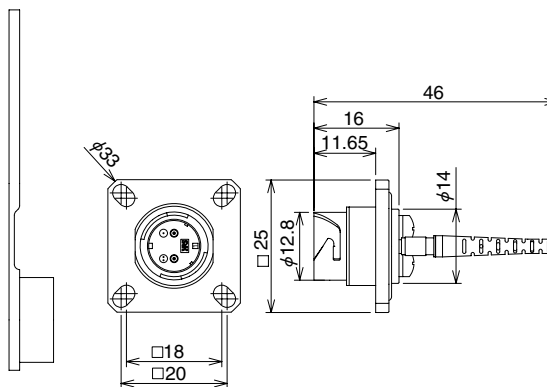
■ Receptacle

● $\phi 0.9$ core wire, M3 screw attachment type



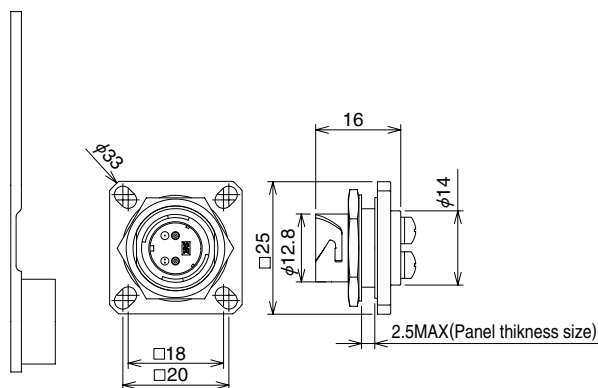
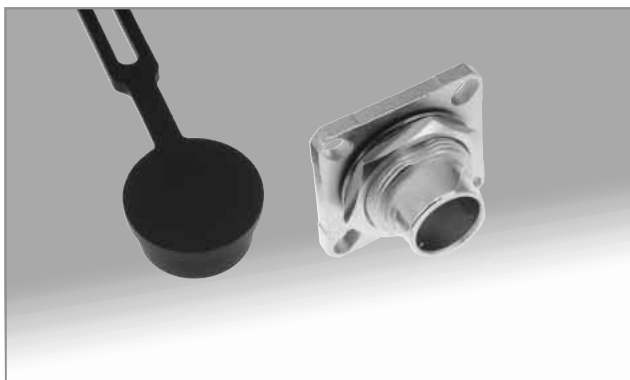
Part number	CL No.	Plating
MF10B-WRF01-0200	CL709-1005-4-00	Nickel
MF10B-WRFH01-0200	CL709-1008-2-00	Chrome(black)

● $\phi 2$ code, M3 screw attachment type



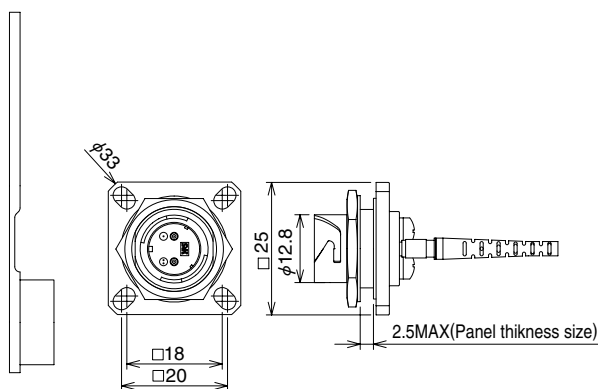
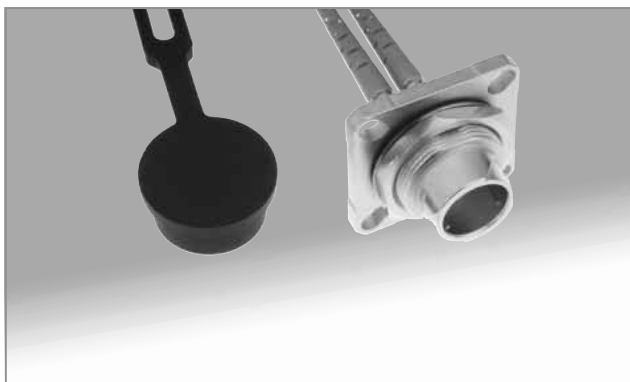
Part number	CL No.	Plating
MF10B-WRFC01-0200	CL709-1014-5-00	Nickel
MF10B-WRFCH01-0200	CL709-1032-7-00	Chrome(black)

● $\phi 0.9$ core wire, hexagon nut attachment type



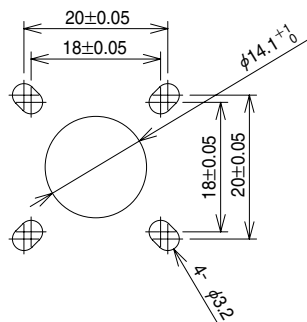
Part number	CL No.	Plating
MF10B-WRB01-0200	CL709-1010-4-00	Nickel
MF10B-WRBH01-0200	CL709-1025-1-00	Chrome(black)

● $\phi 2$ code, hexagon nut attachment type

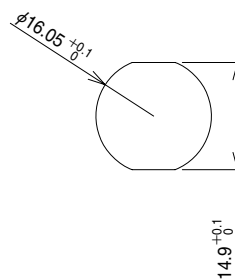


Part number	CL No.	Plating
MF10B-WRBC01-0200	CL709-1013-2-00	Nickel
MF10B-WRBCH01-0200	CL709-1033-0-00	Chrome(black)

■ Recommended panel cutouts



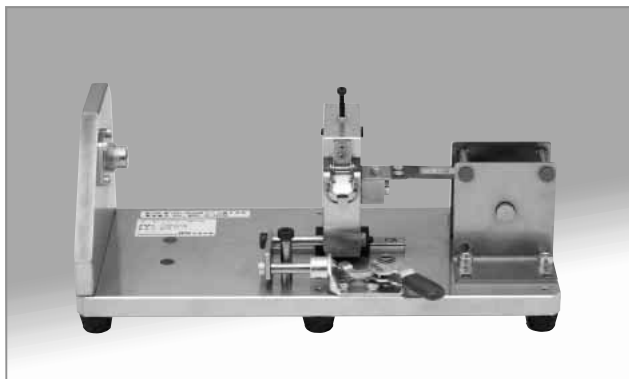
M3 screw attachment type



Hexagon nut attachment type

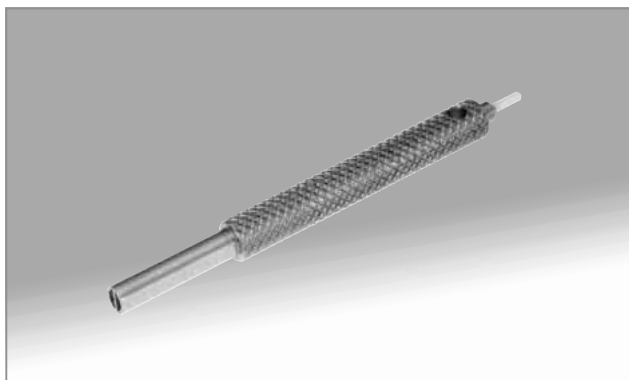
■ Tools

● Plug assembly tool



Part number	CL No.
MF10B-WP7C01-0200/CVMD	CL902-6063-0-00

● Split sleeve removal tool



Part number	CL No.
MF10B-T1	CL709-1034-2-00