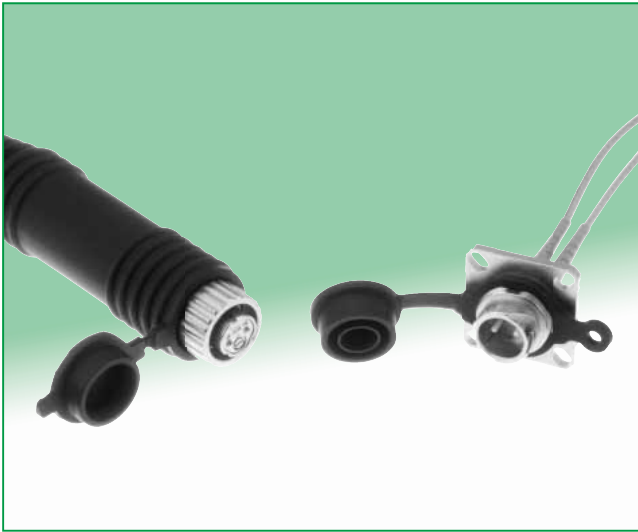


Subminiature, Waterproof Duplex Fiber Optic Connectors

MF10B Series

Waterproof 2 Positions Bayonet Locking System



Reliable bayonet lock

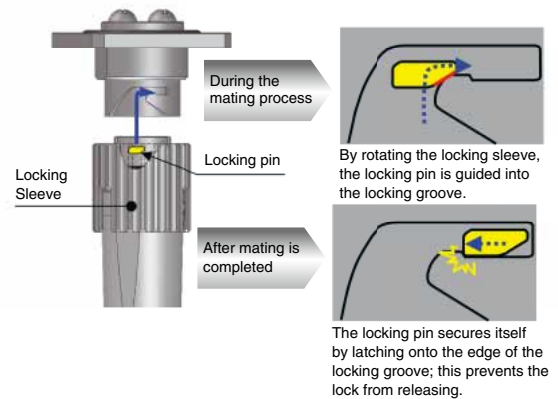


Fig.1

■ Features

1. Extremely small structure

This miniature twin-core waterproof connector utilizes a $\phi 1.25$ mm MU ferrule integrated in an internal housing and shell.

2. Integrated structure with excellent vibration and shock resistance

The bayonet lock assures that connectors can be mated easily and securely. In addition, the locking system prevents accidental 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. Compatible with hi-flex cables

For the plug side, a hi-flex optical fiber cable is available for Military Specification applications (external cable diameter $\phi 5$ or $\phi 6.5$ mm is the standard specification). This light and flexible cable is also suitable for in-line connection of long-distant transmission in outdoor events.

*Before using other types of cables, please contact your local Hirose sales representative.

4. Easy ferrule access

To access the plug ferrule for cleaning, remove the sleeve from the front of the connector to expose the front of the ferrule end face.

5. Multiple mounting options

A four-screw, square flange mount and hexagonal jam nut mount options are available. The four-screw flange type can accept any screw pitch from 18 to 20 mm.

Easy access to the ferrule for cleaning

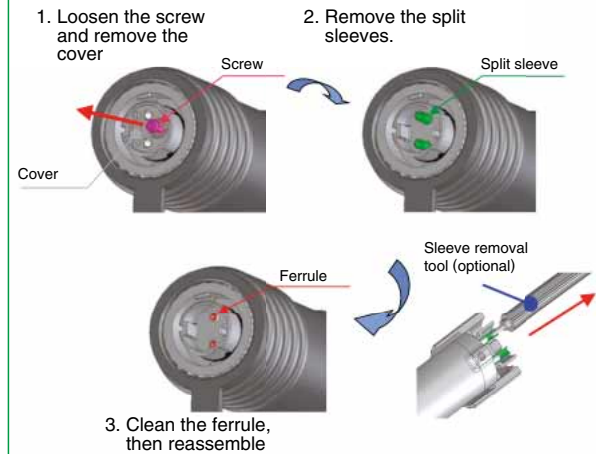


Fig.2

Panel mounting options

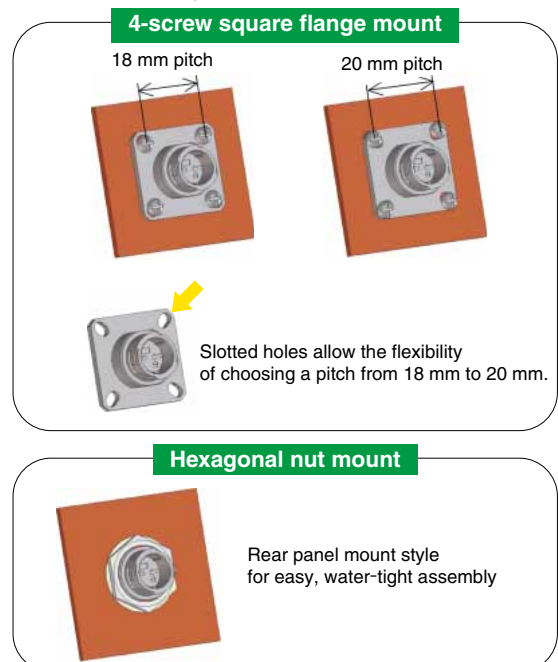


Fig.3

Product Specifications

Rating	Operating temperature range	-40°C to +85°C	Storage temperature range	-25°C to +70°C (AT PACKING)
--------	-----------------------------	----------------	---------------------------	--------------------------------

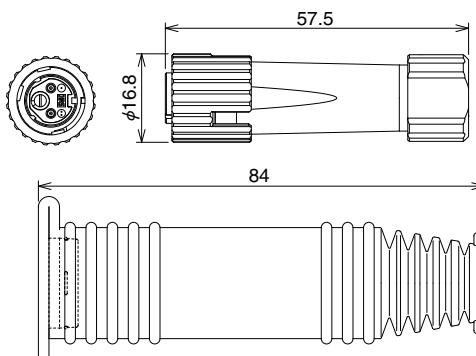
Item		Testing method	Specifications
Optical characteristic	Insertion loss	Wavelength: 1310±20 nm (LD)	SM: 1.0 dB max. (Typical: 0.2 dB) GI: 0.5 dB max. (Typical 0.1 dB max.)
	Durability	5,000 mating cycles	Insertion loss fluctuation after test: 0.3 dB max. No visible damage or components dislocation.
Mechanical characteristics	Tensile strength (axial)	Axial tensile force: 100 N (φ5 mm cable), 200 N (φ6.5 mm cable), or 400 N (cable with tension member)	
	Flex resistant	Load of 500 g, 10,000 times at 90 degrees, right and left direction	
	Vibration	Amplitude of 2.3 mm, acceleration 14.8 G, vertical direction for 4 hours and right and left for 2 hours Based on JIS E 4031 Type 5	
	Shock	Impact of 6 G, duration of 0.025 s ±25%, 4 times Based on JIS E 4032 Type 2	
Environmental characteristics	Humidity (Temperature/humidity-cycle)	Temperature: -10°C to +65°C Humidity: 90% to 96%, 10 cycles (240 hours)	Insertion loss fluctuation after test: 0.3 dB max. No loose, broken or cracked parts
	Temperature cycle	-40°C to +75°C, 42 cycles	
	Heat resistance	240 hours at +85°C	
	Cold resistance	240 hours at -40°C	
	Salt mist	5% for 1,000 hours (with the connector hood installed)	No heavy corrosion ruin the function
	Water proof	1 minute at internal air pressure of 4.9 kPa	No air leakage

Materials

Component	Material	Finish	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 strain relief (Cable diameter: 5 mm, 6.5 mm)



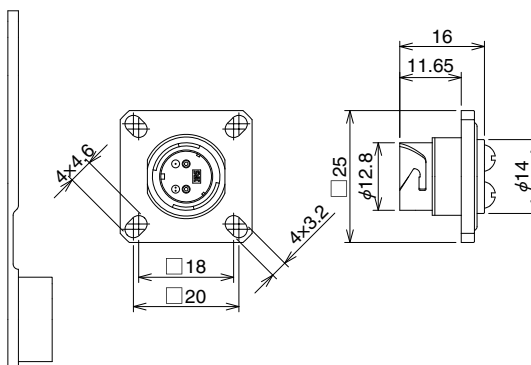
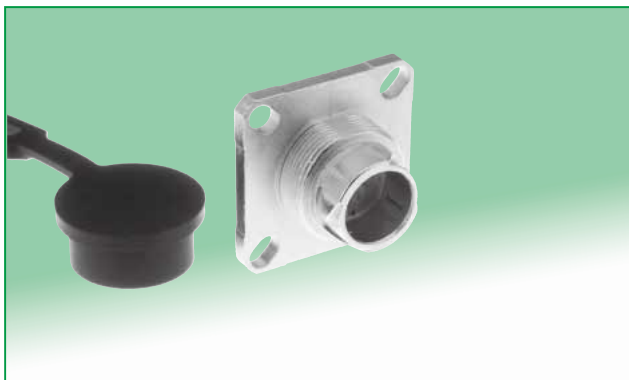
Part No.	HRS No.	Plating
MF10B-WP5C01-0200	709-1020-8 00	Nickel
MF10B-WP5CH01-0200	709-1015-8 00	Chrome (black)
MF10B-WP6.5C01-0200	709-1004-1 00	Nickel
MF10B-WP6.5CH01-0200	709-1007-0 00	Chrome (black)

● Cable with strain relief (Cable diameter: 7 mm)

Part No.	HRS No.	Plating
MF10B-WPS7C01-0200	709-1018-6 00	Nickel
MF10B-WPS7CH01-0200	709-1024-9 00	Chrome (black)

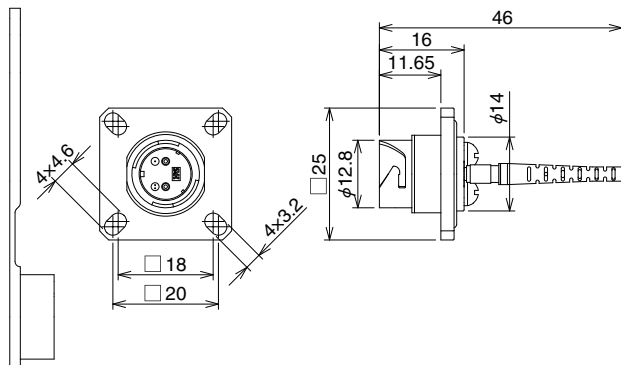
■ Receptacle

● φ0.9 fiber, M3 screw type



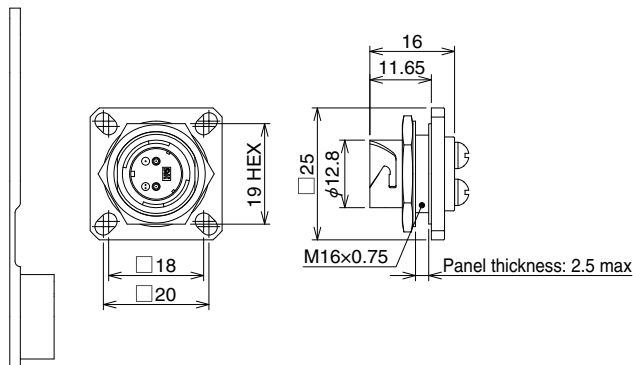
Part No.	HRS No.	Plating
MF10B-WRF01-0200	709-1005-4 00	Nickel
MF10B-WRFH01-0200	709-1008-2 00	Chrome (black)

● $\phi 2$ mm cable, M3 screw type



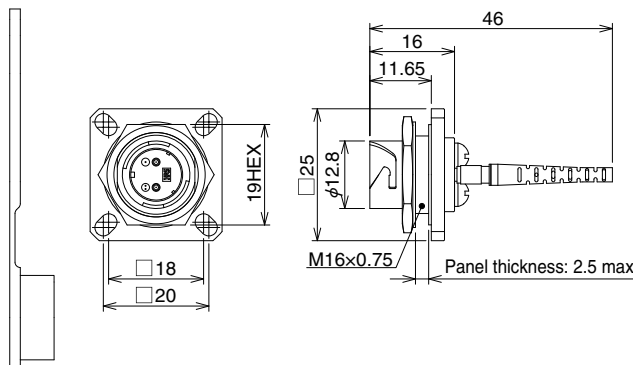
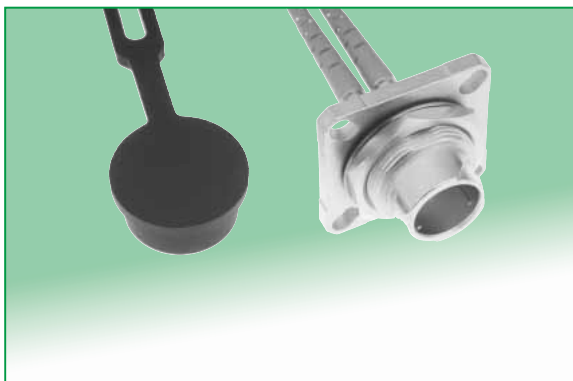
Part No.	HRS No.	Plating
MF10B-WRFC01-0200	709-1014-5 00	Nickel
MF10B-WRFCH01-0200	709-1032-7 00	Chrome (black)

● $\phi 0.9$ mm fiber, hexagon nut type



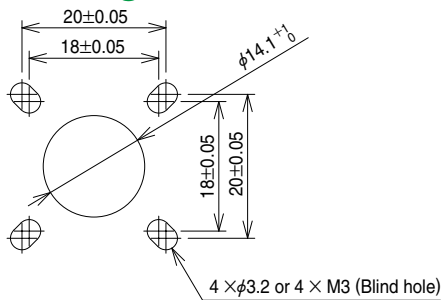
Part No.	HRS No.	Plating
MF10B-WRB01-0200	709-1010-4 00	Nickel
MF10B-WRBH01-0200	709-1025-1 00	Chrome (black)

● $\phi 2$ mm cable, hexagon nut type

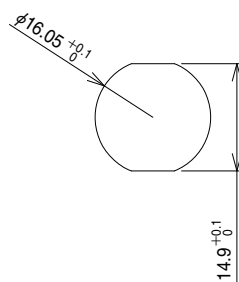


Part No.	HRS No.	Plating
MF10B-WRBC01-0200	709-1013-2 00	Nickel
MF10B-WRBCH01-0200	709-1033-0 00	Chrome (black)

◆ Panel Mounting Dimensions



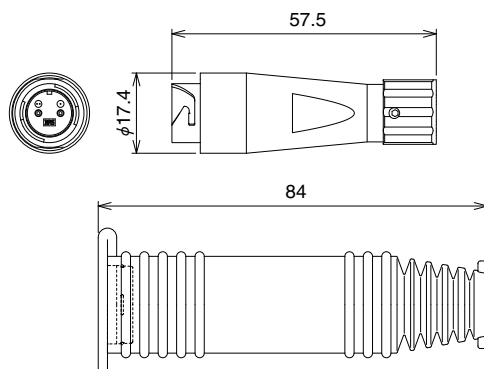
M3 screw type



For hexagon nut type

■ In-Line Jack

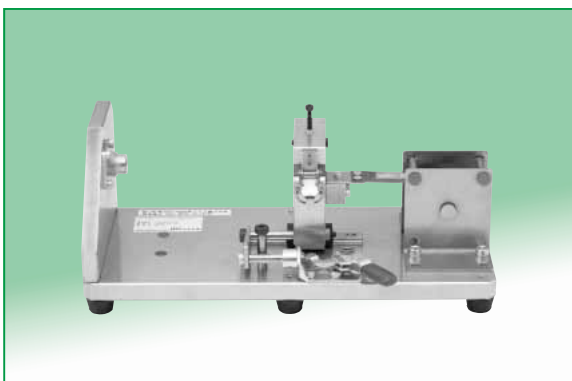
● Cable without strain relief (Cable diameter: 6.5 mm)



Part No.	HRS No.	Plating
MF10B-WJ6.5C01-0200	709-1011-7 00	Nickel
MF10B-WJ6.5CH01-0200	709-1035-5 00	Chrome (black)

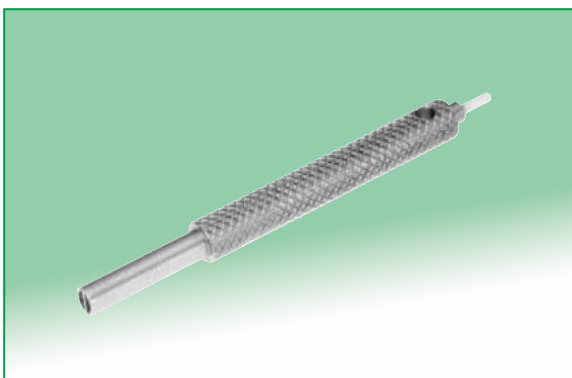
◆ Tools

● Plug assembly tool



Part No.	HRS No.
MF10B-WP7C01-0200/CVMD	902-6063-0 00

● Split sleeve removal tool



Part No.	HRS No.
MF10B-T1	709-1034-2 00

USA:

HIROSE ELECTRIC (U.S.A.), INC. Headquarters
 2688 Westhills Court, Simi Valley, CA 93065-6235
 Phone : +1-805-522-7958
 Fax : +1-805-522-3217
<http://www.hiroseusa.com>

USA:

HIROSE ELECTRIC (U.S.A.), INC. San Jose Office
 3255 Scott Boulevard, Building 7, Suite 101
 Santa Clara, CA 95054
 Phone : +1-408-253-9640
 Fax : +1-408-253-9641
<http://www.hiroseusa.com>

USA:

HIROSE ELECTRIC (U.S.A.), INC. Detroit Office (Automotive)
 37677 Professional Center Drive, Suite #100C
 Livonia, MI 48154
 Phone : +1-734-542-9963
 Fax : +1-734-542-9964
<http://www.hiroseusa.com>

THE NETHERLANDS:

HIROSE ELECTRIC EUROPE B.V.
 Hogehillweg #8 1101 CC Amsterdam Z-O
 Phone : +31-20-6557460
 Fax : +31-20-6557469
<http://www.hiroseeurope.com>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. German Branch
 Herzog-Carl-Strasse 4 D-73760 Ostfildern
 (Scharnhauser Park)
 Phone : +49-711-4560-02-1
 Fax : +49-711-4560-02-299
<http://www.hirose.de>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. Nuernberg Office
 Muggenhofer Str. 136 90429 Nuernberg
 Phone : +49-911 32 68 89 63
 Fax : +49-911 32 68 89 69
<http://www.hirose.de>

UNITED KINGDOM:

HIROSE ELECTRIC EUROPE B.V. UK Branch
 22 Vincent Avenue, Crownhill Business
 Centre, Crownhill, Milton Keynes, MK8 0AB
 Phone : +44-1908-305750
 Fax : +44-1908-305768
<http://www.hirose.co.uk>

CHINA:

HIROSE ELECTRIC (SHANGHAI) CO., LTD.
 1601, Henderson Metropolitan, NO.300, East Nanjing
 Road, Huangpu District, Shanghai, China 200001
 Phone : +86-21-6391-3355
 Fax : +86-21-6391-3335
<http://www.hirose-china.com.cn>

CHINA:

HIROSE ELECTRIC (SHANGHAI) CO.,LTD. BEIJING BRANCH
 A1001, Ocean International Center, Building 56# East 4th
 Ring Middle Road, ChaoYang District, Beijing, 100025
 Phone : +86-10-5165-9332
 Fax : +86-10-5908-1381
<http://www.hirose-china.com.cn>

CHINA:

HIROSE ELECTRIC TECHNOLOGIES (SHENZHEN) CO., LTD.
 Room 09-13, 19/F, Office Tower Shun Hing Square, Di Wang Commercial Centre,
 5002 Shen Nan Dong Road, Shenzhen City, Guangdong Province, 518008
 Phone : +86-755-8207-0851
 Fax : +86-755-8207-0873
<http://www.hirose-china.com.cn>

HONG KONG:

HIROSE ELECTRIC HONGKONG TRADING CO., LTD.
 Room 1001, West Wing, Tsim Sha Tsui Centre, 66
 Mody Road, Tsim Sha Tsui East, Kowloon, Hong Kong
 Phone : +852-2803-5338
 Fax : +852-2591-6560
<http://www.hirose-hongkong.com.hk>

TAIWAN:

HIROSE ELECTRIC TAIWAN CO., LTD.
 103 8F, No.87, Zhengzhou Rd., Taipei
 Phone : +886-2-2555-7377
 Fax : +886-2-2555-7350
<http://www.hirose-taiwan.com.tw>

KOREA:

HIROSE KOREA CO., LTD.
 1261-10, Jeoungwhang-Dong, Shihung-City,
 Kyunggi-Do 429-450
 Phone : +82-31-496-7000,7124
 Fax : +82-31-496-7100
<http://www.hirose.co.kr>

SINGAPORE:

HIROSE ELECTRIC SINGAPORE PTE. LTD.
 10 Anson Road #26-1, International Plaza
 079903, Singapore
 Phone : +65-6324-6113
 Fax : +65-6324-6123
<http://www.hirose-singapore.com.sg>

INDIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD Delhi Liaison Office
 Suite No. 606 5th Floor SB Tower 1A/1 Sector
 16 A Filmcity Noida 201301 Uttar Pradesh-India
 Phone : +91-120-4804917
 Fax : +91-120-4804949
<http://www.hirose.com/sg/>

INDIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD. Bangalore Liaison office
 Unit No.03, Ground Floor, Explorer Building International Tech
 Park Whitefield Road, Bangalore 560066 Karnataka, India
 Phone : +91-80-4120 1907
 Fax : +91-80-4120 9908
<http://www.hirose-singapore.com.sg>

MALAYSIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD (Representative office)
 1-10-07, Suntech @ Penang Cybercity (1164),Lintang
 Mayang Pasir 3,11950, Bayan Baru, Penang, Malaysia.
 Phone : +604-619-2564
 Fax : +604-619-2574
<http://www.hirose.com/sg/>



HIROSE ELECTRIC CO.,LTD.

2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN
 TEL: +81-45-620-3526 Fax: +81-45-591-3726
<http://www.hirose.com>
<http://www.hirose-connectors.com>