

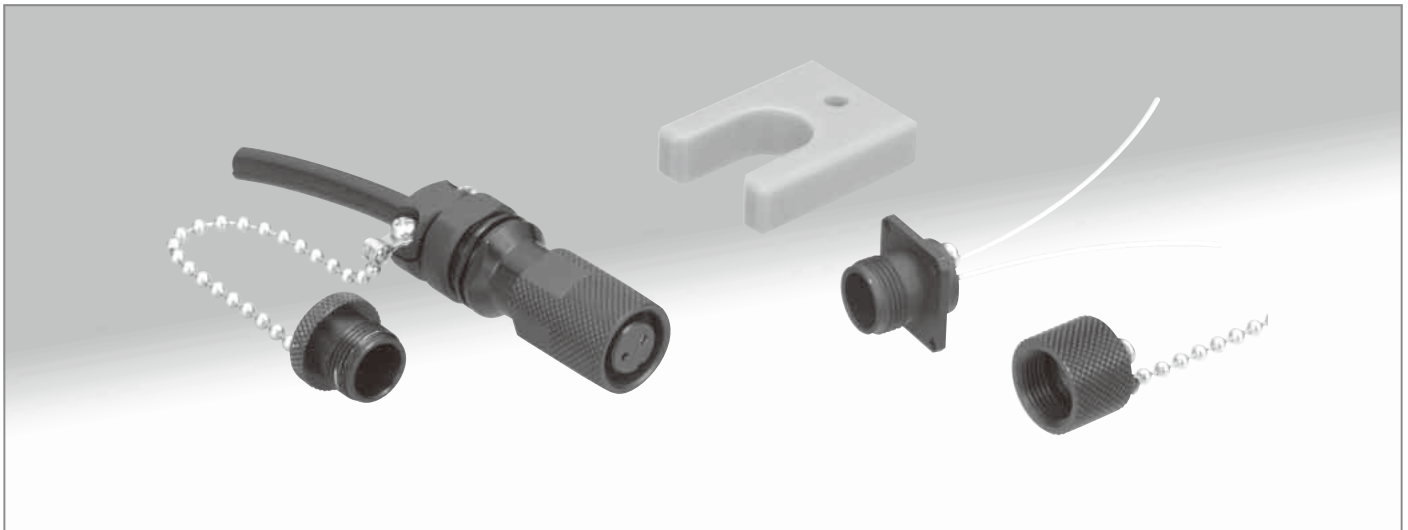
Subminiature, Waterproof Duplex Fiber Optic Connectors

MF10S Series

Waterproof (IP67)

2 Positions

Screw Locking System



■ Features

1. Compact size

Using the widely accepted MU connector ferrule (1.25 mm dia.), assembled in a one-piece shell and internal housing, the waterproof connectors can be used in space-restricted applications.

2. Used in harsh outdoor environments

Tested for 500 hour in salt-fog the connectors are IP67 rated, fully mated or with protective caps.

3. High intensity fiber optic cable

Typical FO cable is the light weight and flexible 6.5 mm outside diameter military type.

Other types of cables can be also accommodated (consult Hirose).

4. Coupling wrench

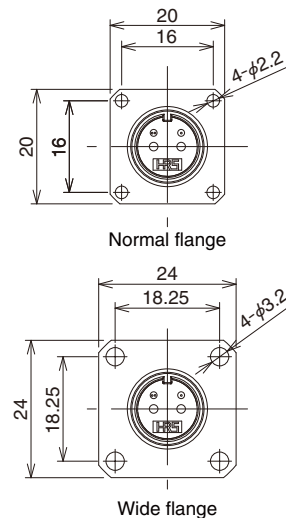
Optional coupling wrench can be provided to assure that the mated connectors are securely tightened to a specified torque range of 1.5 to 3 N·m.

■ Applications

Variety of outdoor optical transmission systems including large LED controllers, surveillance cameras, base stations, railway monitoring, meteorological outdoor instrumentation and other harsh-environment outdoor applications requiring reliable FO connections.

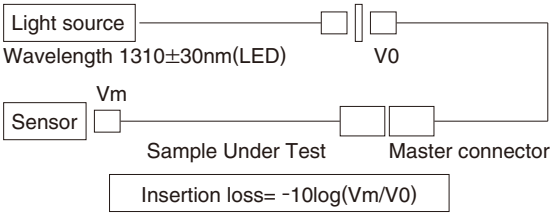


● Flange variations



Product Specifications

| | | | | |
|---------|-----------------------------|----------------|---------------------------|-----------------------------|
| Ratings | Operating temperature range | -40°C to +85°C | Storage temperature range | -25°C to +75°C (At packing) |
|---------|-----------------------------|----------------|---------------------------|-----------------------------|

| Item | Test method | Specifications |
|-------------------------------|---|---|
| Optical characteristics |  <p>Light source Wavelength 1310±30nm(LED) V0 Sensor Vm Sample Under Test Master connector Insertion loss= -10log(Vm/V0)</p> | SM : 1.4dB max. (Average 0.3dB) MM : 0.7dB max. (Average 0.1dB) (Note) |
| Mechanical characteristics | Cable retention (Straight pull) : 200N tensile loads Durability (mating/un-mating) : 200 times Vibration : Frequency : 10 to 55Hz, single amplitude of 0.75mm, acceleration of 98.1 m/s ² , 2 hours in each of the 2 axis. Shock : Acceleration of 981m/s ² , 6ms duration, sine half-wave waveform, 3 cycles in each of the 2 axis. | 1) Insertion loss fluctuation after test: 0.3dB max. 2) No visible damage or components dislocation. |
| Environmental characteristics | Humidity (Temperature/humidity-cycles) : -10°C to +65°C, humidity : 90% to 96% 10 cycles (240 hours) Temperature cycle : -40°C to +75°C, 42 cycles Dry heat : 240 hours at +85°C Cold : 240 hours at -40°C Salt mist : 500 hours (chrome plating), 240 hours (nickel plating) in a 5% concentration of salt mist Water proof : 1 minute at internal air pressure of 4.9 kPa | 1) Insertion loss fluctuation after test: 0.3dB max. 2) No visible damage or components dislocation. No corrosion. No air leakage |

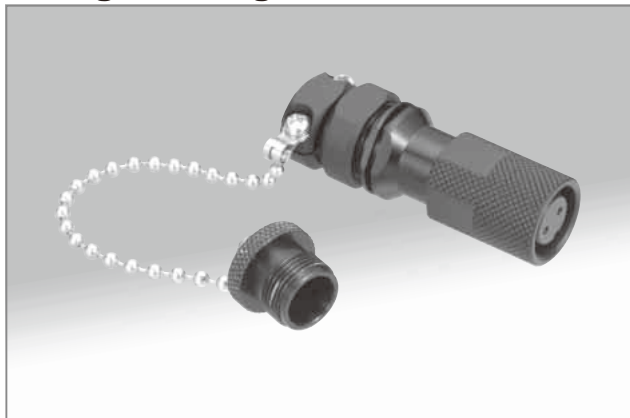
Note : Total insertion loss of connection (plug, receptacle and master cord). (Multi-Mode : Used 1.5dB mode scrambler)

Materials / Finish

| Part | Material | Finish/Color | Remarks |
|-----------------------------|-----------------|--|---------|
| Plug and receptacle housing | Zinc alloy | Chrome plated (Black) or nickel plated | ———— |
| | Brass | Chrome plated (Black) or nickel plated | ———— |
| | Aluminum alloy | Alumite (Black) | ———— |
| Retainer plate | Synthetic resin | ———— | UL94V-0 |
| Hole cap | Aluminum alloy | Alumite (Black) | ———— |
| Screws, ball chain | Stainless steel | ———— | ———— |
| Spring | Steel alloy | Zinc plated | ———— |
| Split sleeve | Zirconia | ———— | ———— |
| Coupling wrench (Optional) | Plastic | Blue | ———— |

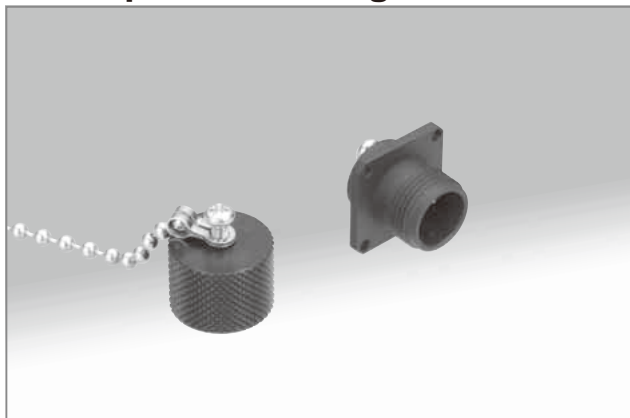
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 MU
 Environment
 Harsin
 Attenuators
 Terminators
 POF / PCF

Plug housings



| Part No. | HRS No. | Plating |
|-------------------------|---------------|---------|
| MF10S-WP7C01-0200(31)* | 709-0203-2 31 | Cr |
| MF10S-WPN7C01-0200(31)* | 709-0544-3 31 | Ni |

Receptacle housings

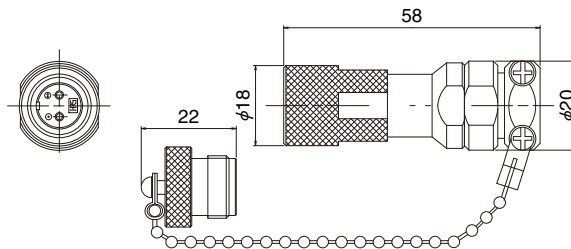


| Part No. | HRS No. | Plating* | Flange* |
|-------------------------|---------------|----------|---------|
| MF10S-WDRF01-0200(31) | 709-0204-5 31 | Cr | N |
| MF10S-WDRFN01-0200(31) | 709-0548-4 31 | Ni | N |
| MF10S-WDRFNG01-0200(31) | 709-0549-7 31 | Ni | W |
| MF10S-WDRFG01-0200(31) | 709-0578-5 31 | Cr | W |

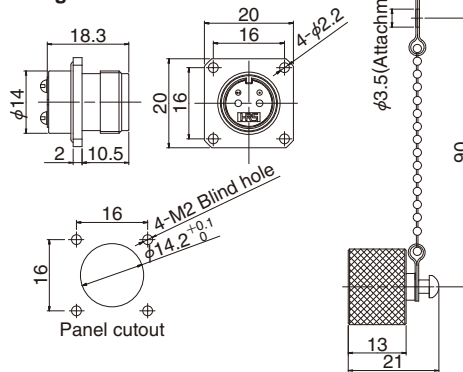
Notes *

Cr : Chrome plating (Black), Ni : Nickel plating
 N : Normal flange, W : Wide flange

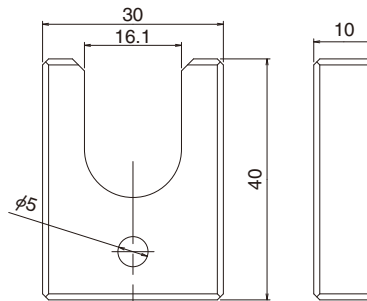
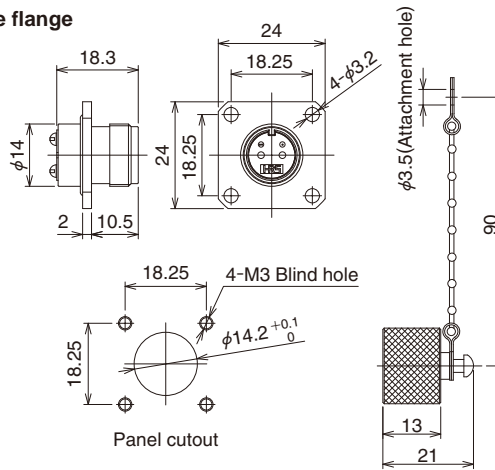
Coupling wrench (Optional)



Normal flange



Wide flange



| Part No. | HRS No. |
|----------|---------------|
| MF10-T1 | 709-0205-8 00 |

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SC

FC

MU

Harsh Environment

Attenuators

Terminators

POF / PCF