# Water-Proof Optical Connector with MT Ferrule

MF11BMT Series

**IP67** **12, 24 pos.** **Bayonet lock**



## ■Features

### 1. Water-proof multi-pos. connector
MT Ferrule into waterproof metal shell.

### 2. Bayonet lock
Easy and secure installation and removal with Bayonet lock design.

### 3. Harsh environments
IP67 water-proof compliant.

### 4. MPO cleaner can be used
Plug and receptacle can be cleaned with MPO cleaner.

### 5. 5000 mating times
Robust metal shell enables 5000 insertion/extraction.

## ■Usage
Broadcasting camera etc.

## ■Product Specifications

| Ratings | Operating temperature range | -20℃ to +60℃ | Storage temperature range | -40℃ to +60℃ (packaged) |
|---|---|---|---|---|

| Item | | Testing method | Specifications |
|---|---|---|---|
| Optical performance | | | |
| | Insertion loss | Wavelength : 850 ± 30nm (LED) | 0.75dB or less (GI) |
| Mechanical characteristic | | | |
| | Insertion/extraction cycles | 5,000 times | Insertion loss after test : 0.75dB or less (per each connection), No damage, crack or loosened. |
| | Vibration resistance | Frequency range : 10 to 55Hz, half amplitude : 0.75mm, acceleration : 98.1m/s$^2$, bidirection 2 hours each | |
| | Shock resistance | Acceleration : 98.1m/s$^2$, duration : 6ms、half-sin wave in 2 axes, 3 cycles each | |
| Environmental performance | | | |
| | Temperature/ humidity cycles | -10°C to +65°C, humidity : 90% to 96%, 168 hours (12 hours/cycle × 14 cycles) | Insertion loss after test : 0.75dB or less (per each connection), No damage, crack or loosened. |
| | Temperature cycles | -40°C to +75°C, 336 hours (8 hours/cycle × 42 cycles) | |
| | Heat resistance | +85°C, 240 hours | |
| | Cold-resistance | -40°C, 240 hours | |
| | Humidity resistance | 75°C, 95% for 168 hours | |
| | Salt spray | Concentration : 5%, 48 hours | No corrosion which is effect on the perfomance. |
| | Waterproof | Place the product under 1M of water for 30 min (IP67) | No water leaks into the connector. |

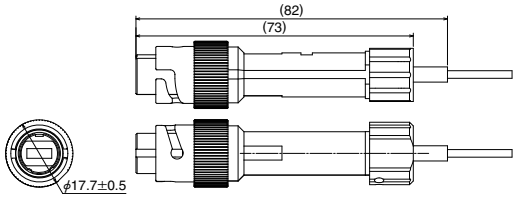
## ■Materials / Finish

| Part name | Materials | Finish |
|---|---|---|
| Plug shell and receptacle | Zinc diecast | Nickel plated |
| Crimp washer Crimp ring | Brass | Nickel plated |
| O-ring, rubber ring, gasket | Silicon rubber | ———— |
| Screw ring | PPS | ———— |
| Spring | Piano wire | Zinc plated |
| Guide pin | Stainless steel | ———— |

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## ■Plug





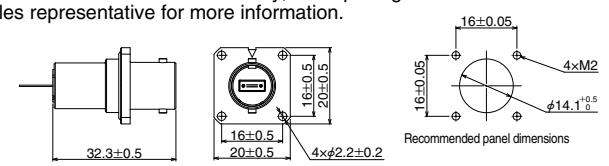

| Part No. | HRS No. | Specification |
|---|---|---|
| MF11BMT-WP4CB02 (Note 1, 2) | 709-7052-0 00 | φ4mm cable for 24 pos. |
| MF11BMT-WP4CA02 (Note 1, 2) | 709-7045-0 00 | φ4mm cable for 12 pos. |

Note 1 : Harnessing of the MF11BMT does not take place at HRS. For details please contact a HRS Sales representative.
Note 2 : For further environmental durability, other plating is available. Please contact a HRS Sales representative for more information.

## ■Receptacle

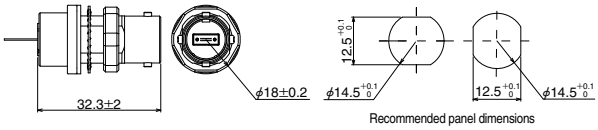
### ●M2 screw






### ●Bulkhead screw type






| Part No. | HRS No. | Specification |
|---|---|---|
| MF11BMT-WRFB01 (Note 1, 2) | 709-7001-0 00 | Square flange for 24 pos. |
| MF11BMT-WRBB01 (Note 1, 2) | 709-7010-0 00 | Bulk head for 24 pos. |
| MF11BMT-WRFA01 (Note 1, 2) | 709-7012-0 00 | Square flange for 12 pos. |
| MF11BMT-WRBA01 (Note 1, 2) | 709-7011-0 00 | Bulk head for 12 pos. |

Note 1 : Harnessing of the MF11BMT does not take place at HRS. For details please contact a HRS Sales representative.
Note 2 : For further environmental durability, other plating is available. Please contact a HRS Sales representative for more information.

## ■Water Proof Cap

### ●Water Proof Cap for Plug (Ni plated)



| Part No. | HRS No. |
|---|---|
| MF11BMT-WPC2 | 709-7035-0 00 |

### ●Water Proof Cap for Receptacle (Ni plated)



| Part No. | HRS No. |
|---|---|
| MF11BMT-WRC2 | 709-7036-0 00 |

## ◆Tooling

### ●Retention plate installation tooling

For installing retention plate for the plug or receptacle.



| Part No. | HRS No. |
|---|---|
| MF11BMT-W01/CV-MD | 902-6075-0 00 |

### ●Easy Assembly tool for pushing stopper into shell



| Part No. | HRS No. |
|---|---|
| MF11BMT-W01/CV-MD2 | 902-6078-0 00 |

### ●Crimp tool

For crimping the plug retention ring.



| Part No. | HRS No. |
|---|---|
| MF11BMT-WP01/CR-MP | 902-6076-0 00 |

### ●Hand crimp tool



| Part No. | HRS No. |
|---|---|
| HT303/MF11BMT(8.1/10.3) | 902-6079-0 00 |

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HRS

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