

# MPO Connector Kit

## PRODUCT SPECIFICATIONS

Part No. MPO -  -  -  -  -  - HD

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## 1. Product Name

The structure of the product name is shown as below.

**MPO** -  -  -  -  -  - **HD**  
(1)      (2)    (3)    (4)    (5)    (6)    (7)

Table 1 Structure of the product name

| No. | Item                  | Applicable type                                                                                                                                                                                                                                  |
|-----|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (1) | Connector Form        | MPO Connector                                                                                                                                                                                                                                    |
| (2) | Connector Type        | M: Male(with guide pin)<br>F:Female(without guide pin)                                                                                                                                                                                           |
| (3) | Ferrule code          | S: SM Standard<br>SP: SM Premium Low Loss<br>M: MM Standard<br>MP: MM Premium Low Loss                                                                                                                                                           |
| (4) | Number of Fiber Holes | 4: 4 Fibers<br>8: 8 Fibers<br>12: 12 Fibers<br>24: 24 Fibers<br>48: 48 Fibers                                                                                                                                                                    |
| (5) | Housing Color         | G: Green(SM Standard)<br>Y: Yellow(SM Premium Low Loss)<br>B: Black(MM 50/125)<br>A: Aqua(MM 50/125 OM3 grade)<br>Be: Beige(MM 62.5/125)<br>EV: Erika Violet(MM 50/125 OM4 grade)                                                                |
| (6) | Boot Type             | 1: Bare Ribbon Fiber<br>Type1: 12 Fibers<br>Type2: 24 Fibers, 48 Fibers<br>2: Flat Jacketed Ribbon Cable<br>2R: φ2mm Round Cable    3:φ3mm Round Cable<br>3S:φ3mm Round Cable with 1piece Crimp Ring<br>4:φ4mm Round Cable<br>5:φ5mm Round Cable |
| (7) | Housing Type          | HD=High Density type                                                                                                                                                                                                                             |

## 2. Specifications

### 2-1 Parts and Materials

Table 2 shows the parts and material of MPO connector without MT Ferrule.  
Each Part No. refers to Paragraph 3-2 Component.

Table 2 Parts and Materials

#### MPO Connector for Ribbon Fiber

| No. | Part Name                          | Material  | Note     |
|-----|------------------------------------|-----------|----------|
| 1   | Housing Assy                       | PBT, SUS  | UL94,V-0 |
| 2   | Spring Push                        | PEI       | UL94,V-0 |
| 3   | Pin Keeper with pin or without pin | PBT, SUS  | UL94,V-0 |
| 4   | Spring                             | SUS       |          |
| 5   | Boot                               | Elastomer | UL94,V-0 |
| 6   | Dust Cap                           | Elastomer | UL94,V-0 |

#### MPO Connector for Flat Jacketed Ribbon Cable

| No. | Part Name                          | Material       | Note     |
|-----|------------------------------------|----------------|----------|
| 1   | Housing Assy                       | PBT, SUS       | UL94,V-0 |
| 2   | Spring Push                        | PEI            | UL94,V-0 |
| 3   | Pin Keeper with pin or without pin | PBT, SUS       | UL94,V-0 |
| 4   | Spring                             | SUS            |          |
| 5   | Crimp Ring                         | Aluminum Alloy |          |
| 6   | Boot                               | Elastomer      | UL94,V-0 |
| 7   | Dust Cap                           | Elastomer      | UL94,V-0 |

#### MPO Connector for Round Cable

| No. | Part Name                            | Material       | Note     |
|-----|--------------------------------------|----------------|----------|
| 1   | Housing Assy                         | PBT, SUS       | UL94,V-0 |
| 2   | Spring Push                          | PEI            | UL94,V-0 |
| 3   | Pin Keeper with pin or without pin   | PBT, SUS       | UL94,V-0 |
| 4   | Spring                               | SUS            |          |
| 5   | Crimp Ring/1piece Crimp Ring for 3mm | Aluminum Alloy |          |
| 6   | Ring                                 | Copper Alloy   |          |
| 7   | Boot                                 | Elastomer      | UL94,V-0 |
| 8   | Dust Cap                             | Elastomer      | UL94,V-0 |

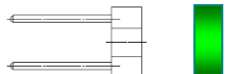
Table 3 shows the materials and other characteristics of MT ferrule.

Table 3 Materials and other characteristics of MT Ferrule

| Fiber hole number | Material | Fiber Hole Diameter | Insertion Loss       | Application         |
|-------------------|----------|---------------------|----------------------|---------------------|
| 4                 | PPS      | 0.126 +0.002/-0 mm  | $\leq 0.6\text{dB}$  | MM Standard         |
| 8                 | PPS      | 0.125 +0.001/-0 mm  | $\leq 0.7\text{dB}$  | SM Standard         |
|                   | PPS      | 0.125 +0.0005/-0 mm | $\leq 0.35\text{dB}$ | SM Premium Low Loss |
|                   | PPS      | 0.126 +0.002/-0 mm  | $\leq 0.6\text{dB}$  | MM Standard         |
|                   | PPS      | 0.126 +0.001/-0 mm  | $\leq 0.35\text{dB}$ | MM Premium Low Loss |
|                   | PPS      | 0.126 +0.001/-0 mm  | $\leq 0.35\text{dB}$ | MM Premium Low Loss |
| 12                | PPS      | 0.125 +0.001/-0 mm  | $\leq 0.7\text{dB}$  | SM Standard         |
|                   | PPS      | 0.125 +0.0005/-0 mm | $\leq 0.35\text{dB}$ | SM Premium Low Loss |
|                   | PPS      | 0.126 +0.002/-0 mm  | $\leq 0.6\text{dB}$  | MM Standard         |
|                   | PPS      | 0.126 +0.001/-0 mm  | $\leq 0.35\text{dB}$ | MM Premium Low Loss |
| 24                | PPS      | 0.125 +0.001/-0 mm  | $\leq 0.7\text{dB}$  | SM Standard         |
|                   |          | 0.125 +0.0005/-0 mm | $\leq 0.35\text{dB}$ | SM Premium Low Loss |
|                   |          | 0.126 +0.002/-0 mm  | $\leq 0.6\text{dB}$  | MM Standard         |
|                   | PPS      | 0.126 +0.001/-0 mm  | $\leq 0.35\text{dB}$ | MM Premium Low Loss |
| 48                | PPS      | 0.125 +0.001/-0 mm  | $\leq 0.7\text{dB}$  | SM Standard         |
|                   | PPS      | 0.126 +0.002/-0 mm  | $\leq 0.6\text{dB}$  | MM Standard         |

Table 4 shows the characteristics and discrimination of Guide Pin.

Table 4 Characteristics & Discrimination of Guide Pin

| Application                   | Outer Diameter            | Material | Color of Pin Keeper                                                                                 |
|-------------------------------|---------------------------|----------|-----------------------------------------------------------------------------------------------------|
| MT MM and MM Low Loss Ferrule | 0.6980 $\pm$ 0.0010mm     | SUS      | <b>Black</b>   |
| MT SM Ferrule                 | 0.6985 $\pm$ 0.0005mm     | SUS      | <b>Green</b>   |
| MT SM Low Loss Ferrule        | 0.6985 +0.0004/-0.0001 mm | SUS      | <b>Yellow</b>  |

## 2-2 Standards

Table 4 shows the industrial standards of MPO type connectors.

Table 4 Standards

| Standard  | Number         |
|-----------|----------------|
| TELCORDIA | GR-1345        |
| TIA/EIA   | 604-5 Type MPO |
| IEC       | 61754-7        |

NOTE : RoHS Compliant

## 2-3 Tolerances

Permissible deviation in dimensions without tolerance indication is  $\pm 0.1\text{mm}$ .

## 2-4 Country of Origin

Country of origin of those products is Japan.

## 2-5 Packing

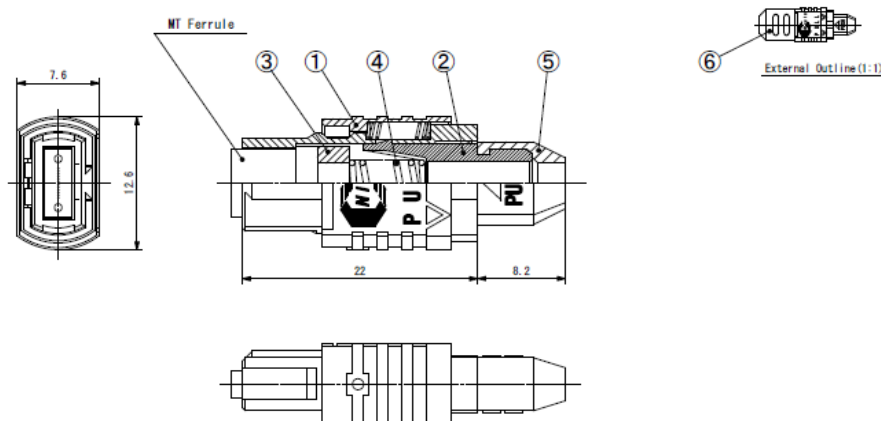
The product is packed to be prevented from damages during transportation.

## 3. External Dimension

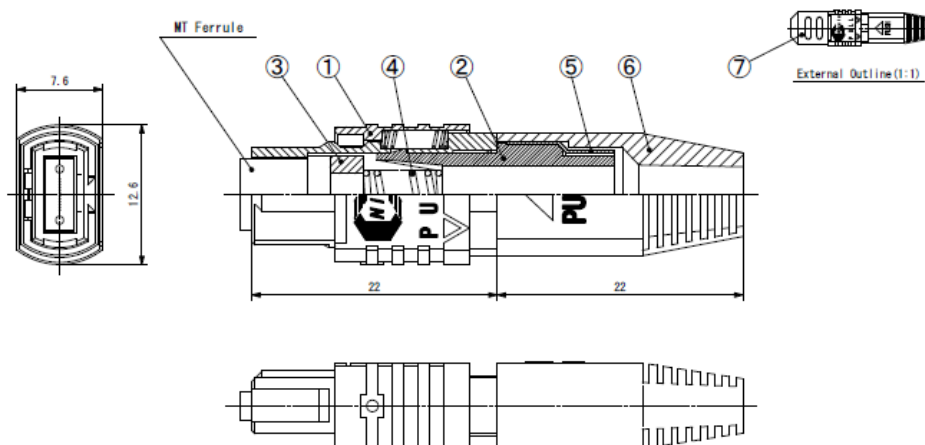
### 3-1 Assembled products

The following shows the dimension and structure of assembled product:

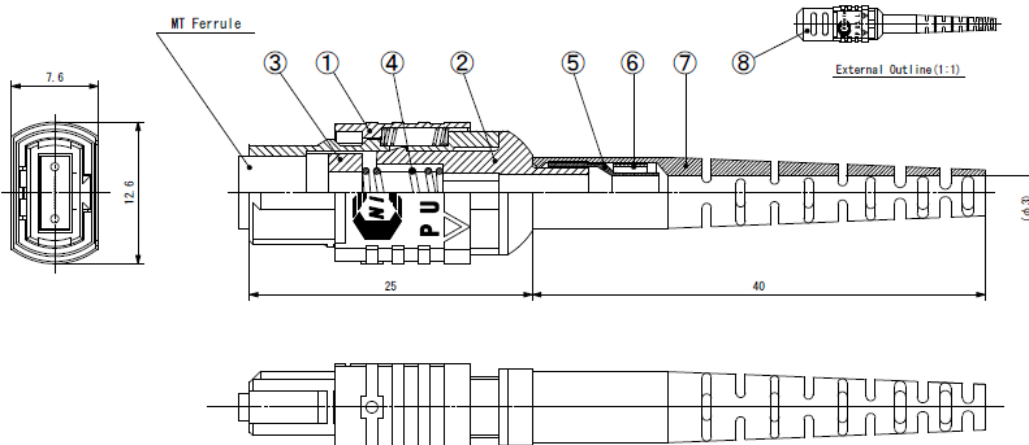
MPO Connector for Ribbon Fiber



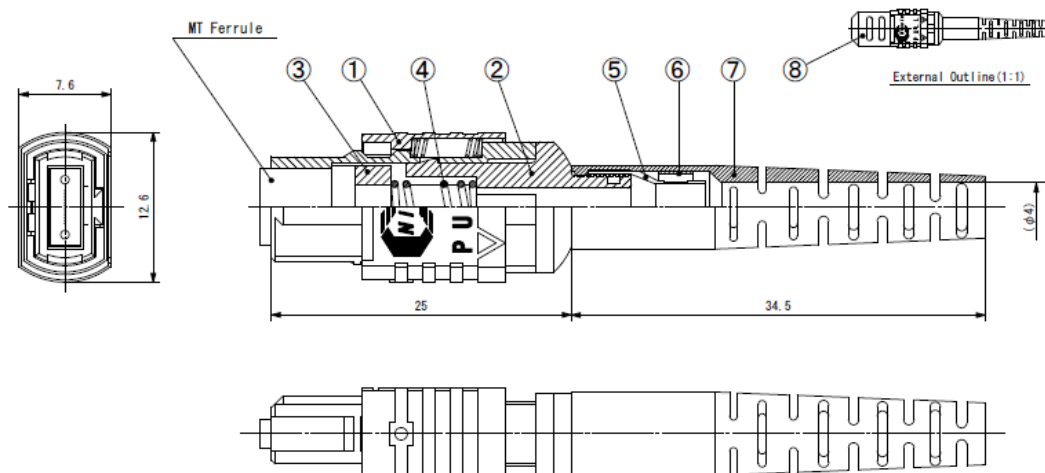
## MPO Connector for Flat Jacketed Ribbon Cable



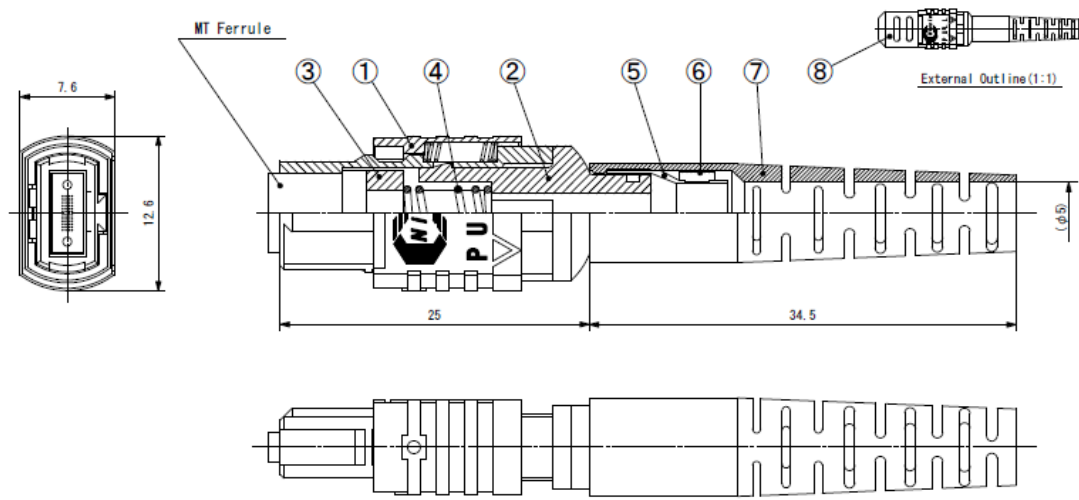
## MPO Connector for $\phi 3$ mm Round Cable (1 piece crimp ring type doesn't contain the part#6-ring.)



## MPO Connector for $\phi 4$ mm Round Cable



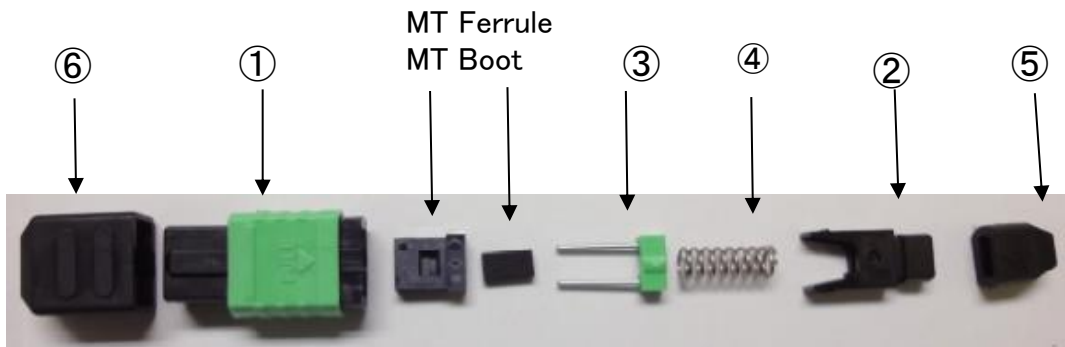
## MPO Connector for $\phi 5$ mm Round Cable



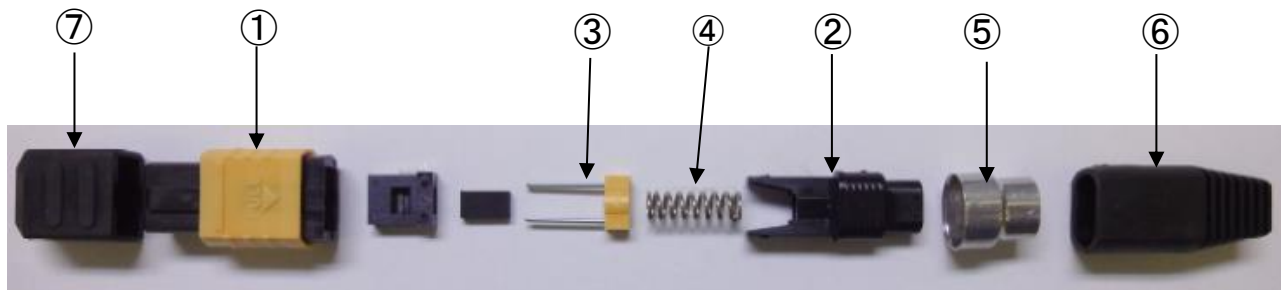
## 3-2 Component

The component parts are shown in the following pictures:

MPO for Ribbon Fiber



MPO for Flat Jacketed Ribbon Cable



MPO for  $\phi 3\text{mm}$  Round Cable(1piece crimp ring type doesn't contain the part#6-ring.)

