

MT Ferrule

Hakusan can offer a wide variety of Multi-fiber optical connection solutions with over 35 years of expertise and experience.



12/24/36/48 MT Ferrule



12MT



36MT



24MT



48MT

16/32 MT Ferrule



16MT



32MT

Hakusan Inc.



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HS-CN001 2026.06

MT Ferrule

We've been producing a wide range of MT ferrule products lineup using ultra-high precision injection molding technology cultivated in our long manufacturing history. The premium, super low loss type is also available for single-mode and multi-mode transmission with various fiber counts.

▼ 12/24/36/48 MT Ferrule Series

| Mode | Product Name | Expected Polishing | P/N | Fiber Count | Insertion loss (dB) | | |
|-------------|------------------|--------------------|-------------|-------------|---------------------|-----|-----|
| | | | | | 0.35 | 0.5 | 0.7 |
| Single-mode | 12MT-PA-S | Angled PC | 90A11634 | 12 | | | ● |
| | 12MT-PA-SLS | Angled PC | 90A11427 | 12 | ● | | |
| | 24MT-PA-S | Angled PC | 90A11450 | 24 | | | ● |
| | 24MT-PA-SLS-10N* | Angled PC | ORD2025-087 | 24 | ● | | |
| | 24MT-PA-SLS-20N* | Angled PC | ORD2023-040 | 24 | ● | | |
| | 36MT-PA-SLS* | Angled PC | ORD2023-052 | 36 | ● | | |
| | 48MT-PA-S* | Angled PC | ORD2022-037 | 48 | | | ● |
| Multi mode | 12MT-PF-M | Flat PC | 90A11524 | 12 | | ● | |
| | 12MT-PF-SLM | Flat PC | 90A11632 | 12 | ● | | |
| | 12MT-PA-SLM | Angled PC | 90A11652 | 12 | ● | | |
| | 24MT-PF-M | Flat PC | 90A11330 | 24 | | ● | |
| | 24MT-PF-SLM | Flat PC | 90A11453 | 24 | ● | | |
| | 36MT-PF-M* | Flat PC | Not Fixed | 36 | | ● | |
| | 48MT-PF-M* | Flat PC | ORD2023-010 | 48 | | ● | |

◆ Refer to the following standard : IEC 61754-5 / IEC 61754-7-1 / IEC 61754-7-2 / TIA-604-5-C

※: Under development (sample available only for red text ones)

■ MT ferrule manufactured by Hakusan Inc. has acquired technology transfer from NTT.

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HS-CN002 2026.06

MT Ferrule

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▼ 16/32 MT Ferrule Series

| Transmission Mode | Product Name | Expected Polishing | P/N | Fiber Count | Insertion loss (dB) | | |
|-------------------|--------------|--------------------|-------------|-------------|---------------------|-----|-----|
| | | | | | 0.35 | 0.5 | 0.7 |
| Single-mode | 16MT-PA-S | Angled PC | 90A11661 | 16 | | | ● |
| | 16MT-PA-SLS | Angled PC | 90A11619 | 16 | ● | | |
| | 32MT-PA-SLS* | Angled PC | ORD2023-032 | 32 | ● | | |
| Multimode | 16MT-PF-M | Flat PC | 90A11663 | 16 | | ● | |
| | 16MT-PA-SLM | Angled PC | 90A11662 | 16 | ● | | |
| | 16MT-PF-SLM | Flat PC | 90A11664 | 16 | ● | | |
| | 32MT-PF-M | Flat PC | 90A11503 | 32 | | ● | |
| | 32MT-PF-SLM | Flat PC | 90A11647 | 32 | ● | | |
| | 32MT-PA-SLM | Angled PC | 90A11648 | 32 | ● | | |

◆ Refer to the following standard : IEC 61754-5 / IEC 61754-7-3 / IEC 61754-7-4 / TIA 604-18

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HS-CN003 2026.06

Metal Pin Clamp

MT ferrule should have guide pins for optical connection.

Hakusan can offer a wide variety of Metal Pin Clamps based on the performance.

Metal Pin Clamp consists of Pin + Pin Keeper.

| Pin Keeper Type | Application | Applicable MT Ferrules | Product Name | P/N | Grade |
|-----------------|-------------------------------------|------------------------|-------------------------------|----------|----------------|
| Box Type | MPO Connectors | 12/24 MT | Metal Pin Clamp CMM | 90A11517 | MM-SL |
| | | | Metal Pin Clamp CSM | 90A11518 | MM-LL SM-SL |
| | | | Metal Pin Clamp CE | 90A11532 | SM-LL |
| | | 16/32 MT | Metal Pin Clamp 0.55 CMM | 90A11547 | MM-SL |
| | | | Metal Pin Clamp 0.55 CSM | 90A11548 | MM-LL SM-SL |
| | | | Metal Pin Clamp 0.55 CE | 90A11549 | SM-LL |
| Flat Type | MT-Jumper (for Optical Transceiver) | 12/24 MT | Metal Pin Clamp FLAT CMM | 90A11560 | MM-SL |
| | | | Metal Pin Clamp FLAT CSM | 90A11561 | MM-LL SM-SL |
| | | | Metal Pin Clamp FLAT CE | 90A11562 | SM-LL |
| | | 16/32 MT | Metal Pin Clamp FLAT 0.55 CMM | 90A11557 | MM-SL |
| | | | Metal Pin Clamp FLAT 0.55 CSM | 90A11558 | MM-LL SM-SL |
| | | | Metal Pin Clamp FLAT 0.55 CE | 90A11559 | SM-LL |

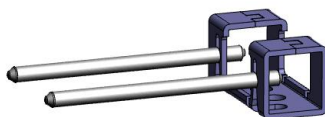
Standard Metal Pin Clamp

Flat Type



Box Type

BOX Type



FLAT Type



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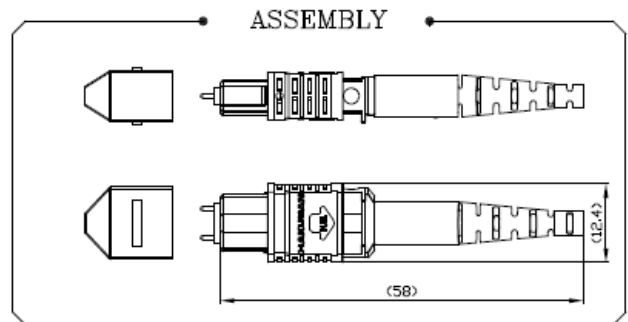
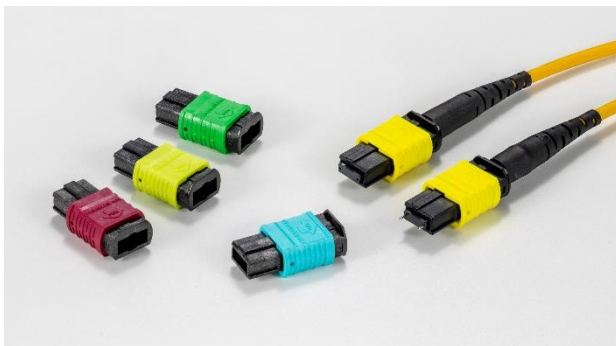
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MPO Connector

Hakusan can offer Hakusan Brand MPO connectors and ensure quality with good-quality MT ferrule to support the market demands for multi-fiber optical connection solutions.

*Hakusan's MPO kits exclude MT ferrules. You can choose relevant MT ferrule from MT ferrule product list.

| Specifications | Details |
|--|---|
| Fiber Counts | 12F/16F/24F/32F |
| Performance | Upon MT ferrules grade |
| Housing Color | Yellow/Green/Magenta/Aqua/Beige/Lime green |
| Boots Type *Standard color : Black *Optional Color: Green/Blue/White | Round Cable Type 1.6/2.0/2.4/3.0/3.2/3.5/3.8/5.0 (Standard Push-Pull Boot and Nano Push-Pull Boot available) Bare Ribbon Boot Oval Round Boot |
| Operating Temp. | -40°C~75°C |
| Durability | 500 mating *TIA 568.3 based |
| *IEC 61754-7 and TIA/EIA 604-5 Compliant for MPO interfaces *Telcordia GR-1435-CORE Compliant | |



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MPO Connector

▼MPO Connector Typical Parts Description/Number List

Parts Description Example

① 12F — ② YE — ③ R — ④ E — ⑤ BK — ⑥ PB

| ① | Fiber Counts | ② | HSG Color | ③ | Cable Type | ④ | Pin Type | ⑤ | Boots Color | ⑥ | Option |
|-----|--------------|----|-----------|------|-------------------|---|----------------------------|----|-------------|-------|----------------|
| 12F | 12 fibers | BE | Beige | B | Bare Ribbon | F | Female | BK | Black | PB | Push-Pull |
| 16F | 16/32 fibers | AQ | Aqua | R | Round Cable(3.0) | M | Multimode* ¹⁾ | GR | Green | FB | Flexible |
| 24F | 24 fibers | MA | Magenta | O | Oval Jacket Cable | S | Single-mode* ²⁾ | BL | Blue | PB-NN | Nano Pull-Pull |
| | | LI | Limegreen | 1.6R | 1.6mm Round | E | Elite* ³⁾ | WH | White | | |
| | | GR | Green | 2R | 2.0mm Round | | | | | | |
| | | YE | Yellow | 24R | 2.4mm Round | | | | | | |
| | | | | 32R | 3.2mm Round | | | | | | |
| | | | | 35R | 3.5mm Round | | | | | | |
| | | | | 38R | 3.8mm Round | | | | | | |
| | | | | 5R | 5.0mm Round | | | | | | |

*1) Male Pin for MultiMode Standard Loss

*2) Male Pin for Single-mode Standard Loss and Multimode Low Loss

*3) Male Pin for Single-mode Low Loss

*MT ferrules must be ordered separately.

Please feel free to contact us,
when you need any MPO housing kits.



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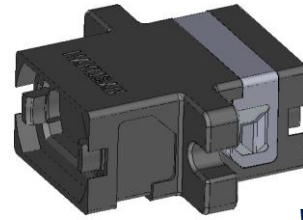
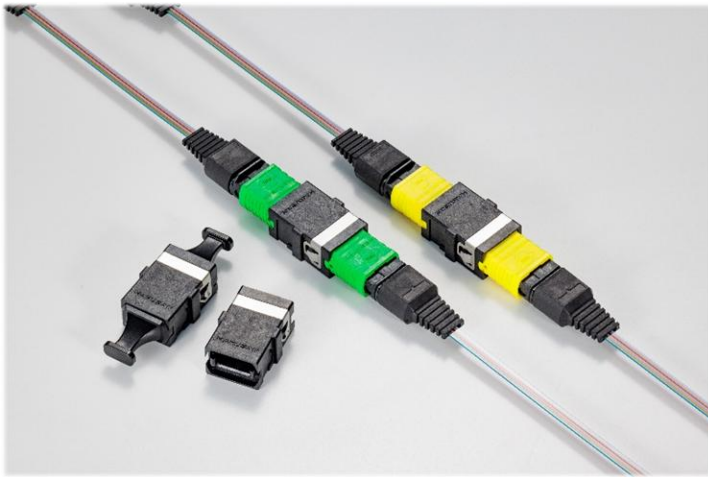
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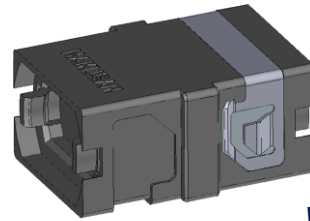
HS-CN006 2026.06

MPO-MPO Adapter

Standard 12F/16F MPO-MPO Adapters (with/without flange) SC Footprint Type



with flange



without flange

| Style | Type | Fiber | P/N |
|------------------------------|------------|---------|-------------|
| KEY UP-DOWN (Opposed Key) | w/h flange | 12F/24F | ORD2024-053 |
| | | 16F/32F | ORD2024-055 |
| | w/o flange | 12F/24F | ORD2024-052 |
| | | 16F/32F | ORD2024-054 |
| KEY UP-UP (Aligned Key) | w/h flange | 12F/24F | ORD2025-083 |
| | | 16F/32F | ORD2025-085 |
| | w/o flange | 12F/24F | ORD2025-082 |
| | | 16F/32F | ORD2025-084 |

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MPO Master Cord

For Precise Insertion Loss Measurement



➤ **12/16 Master Cord** ※Random Mating

- Multimode : IL MAX \leq 0.15 dB
- Single-mode: IL MAX \leq 0.20 dB

➤ **24 Master Cord** ※Random Mating

- Multimode : IL MAX \leq 0.20 dB
- Single-mode: IL MAX \leq 0.35 dB

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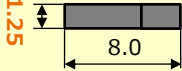
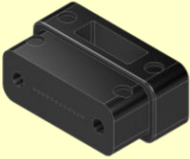
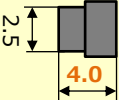
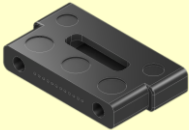
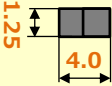


HS-CN008 2026.06

MTCOMPACT®

We have a lineup of size-reduced MT ferrules.
These MT ferrules are helpful for limited space within equipment.

▼ MTCOMPACT® Series

| Product features | | Transmission Mode | Product Name | Fiber Count |
|---|---|-------------------|---|---|
| Slim Half thickness of standard MT Ferrule | | Multimode | 12MT-PF-M-T1.25^{A)} P/N: 90A11508 | 12 |
|  |  | | | |
| Short Half length of standard MT Ferrule | | Multimode | 12MT-PF-M-L4^{A)} P/N: ORD2023-087 | 12 |
|  |  | | | |
| Slim & Short Half thickness & length of standard MT Ferrule | | Multimode | 16MT-PF-M-L4^{B)}※ P/N: ORD2023-026 | 16 |
| | | | 12MT-PA-S-L4^{A)}※ P/N: ORD2022-005 | 12 |
|  | | Single-mode | 16MT-PA-S-L4^{B)}※ P/N: ORD2023-025 | 16 |
| | | | 12MT-PF-M-T1.25-L4^{A)} P/N: 90A11553 | 12 |
|  | | Multimode | 16MT-PF-M-T1.25-L4^{B)}※ P/N: ORD2023-051 | 16 |
| | | | Single-mode | 12MT-PA-S-T1.25-L4^{A)}※ P/N: ORD2022-014 |
| | | | | 16MT-PA-S-T1.25-L4^{B)}※ P/N: ORD2023-080 |

A) Optical interfaces refer to with the following standards: : IEC 61754-5 / IEC 61754-7-1 / TIA-604-5

B) Optical interfaces refer to with the following standards: IEC 61754-7-3 / TIA 604-18

※: Under development (sample available only for red text ones)

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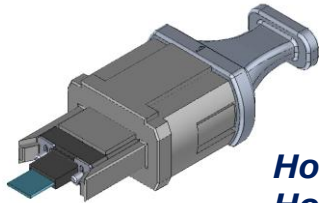
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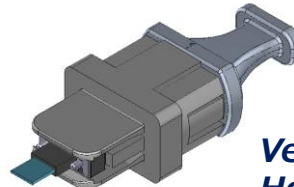
HS-CN009 2026.06

MT - MPO Adapter

For standard MT Ferrule



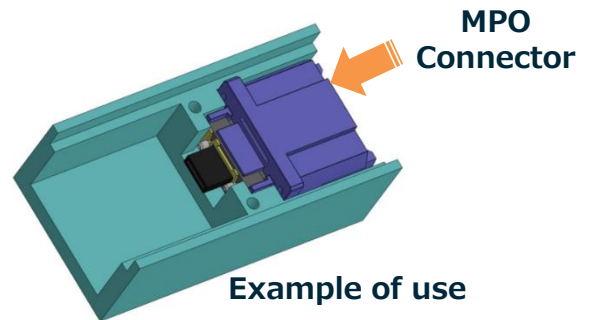
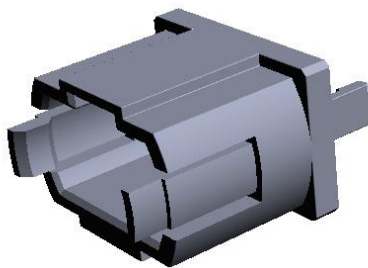
*Horizontal
Holding Type*



*Vertical
Holding Type*

For MTCOMPACT® Short

The "Transceiver type" is suitable for expanding the mounting space in an optical transceiver.



| Style | Type | Fiber | P/N |
|-------------------------------|------------|---------|-------------|
| Standard MT-MPO adapter | Horizontal | 12F | ORD2024-037 |
| | Vertical | 12F/24F | ORD2024-038 |
| | | 16F/32F | ORD2024-085 |
| MTCOMPACT Short - MPO adapter | - | 12F | ORD2023-008 |
| | | 16F | ORD2023-044 |

◆ Optical and mechanical reference planes refer to with the following standard: IEC 61754-7-1, IEC 61754-7-3

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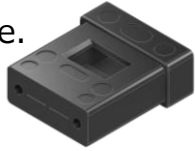
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HS-CN010 2026.06

MTRCF®

We are on track with development for the MT ferrule with for reduced cladding fiber. The fiber hole of 80µm is available. These MT ferrules(MTRCF®) are the same size as the standard MT ferrule.



▼MTRCF®

| Product features | Mode | Product Name | Fiber count |
|------------------------|-------------|---|-------------|
| 250µm pitch fiber hole | Single-mode | 12MT-PA-SLS-φ80 ^{A)} ※ P/N: ORD2021-044 | 12 |
| | | 16MT-PA-SLS-φ80 ^{A)} ※ P/N: ORD2021-045 | 16 |
| | | 24MT-PA-SLS-φ80 ^{A)} ※ P/N: ORD2025-057 | 24 |
| | | 32MT-PA-SLS-φ80 ^{A)} ※ P/N: ORD2024-009 | 32 |

▼MTDS® (Narrow-Pitch MT Ferrule)

| Product features | Mode | Product Name | Fiber count |
|------------------------|-------------|--|-------------|
| 125µm pitch fiber hole | Multimode | 24MT-PF-M-φ80-125 [※] P/N: ORD2023-056 | 24 |
| 127µm pitch fiber hole | Single-mode | 32MT-PA-S-φ80-127 [※] P/N: ORD2024-086 | 32 |

A) Optical interfaces refer to with the following standards: IEC 61754-5 / IEC 61754-7-1 / TIA-604-5

B) Optical interfaces refer to with the following standards: IEC 61754-5 / IEC 61754-7-3 / TIA 604-18

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