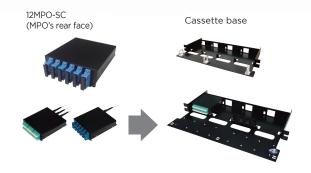
# **Optical Connectors**

#### Multi-Fiber Optical Connector & Application / MPO polarity & Basic connection with optical transceivers

### MPO Cassettes

#### **MPO Cassette**

- A cassette that makes it easy to switch the connection between a multi-fiber MPO connector and single-fiber connector (SC or LC)
- Can be accommodated in the 1U space of a 19 inch rack
- Can accommodate maximum of 24 fibers x 8 cables (192 fibers)



Product name		MPO cassette		
Max. number of connectable fibers		12	24	
Connector		12MPO-SC	12MPO×2-LC	
Adapter-	fitting face	MPO Rear face	MPO Rear face	
Insertion Low		0.55 dB max. (Against Master)		
loss	Standard	1.05 dB max. ( <i>A</i>	Against Master)	
Fiber Type		MM50, MM50 (10G)		
Fixing method		Screw		
Place of installation		MPO cassette base		
Dimensions		$108(W)\times116(D)\times39(H)$ mm (excepting protrusions)		

<sup>\*:</sup> Single-fiber adapters should be placed on the front face.

<sup>\*:</sup> The MPO plugs are fitted with a guide pin.

Product name	MPO cassette base A	MPO cassette base C
19-inch rack-mountable	<b>✓</b>	<b>✓</b>
Cord tray	<b>✓</b>	_
Number of MPO cassette per cassette base	4 cassettes/cassette base	4 cassettes/cassette base
Number of adaptor panel per cassette base	4 panels/cassette base	4 panels/cassette base
Size	1U	1U
Dimensions	470(W)×43.5(H)×230(D)mm	462(W)×43.5(H)×134(D)mm

## Optical Fan-out

#### **Transition Pieces**

#### **Features**

Various types of devices for separating multifiber ribbons into individual fibers are available.





FO8 for 8-fiber cord

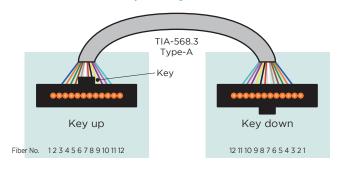
Breakout Box for 12-fiber ribbon

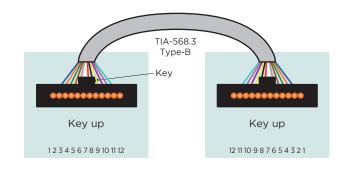
Shape	Туре	Number of usable fibers	External dimensions[mm]	Shape on Multi-fiber side	Shape on Single-fiber side
Round	F08	2,4,8	φ8×50	Cord	Cord
Round	F011L	12	φ11×54	Cord	Cord
Rectangular	Breakout Box	4,8,12	39×11×5	Ribbon	φ0.9mm fiber

<sup>\*</sup> For more information about the cord to be connected on the single fiber side, contact Sumitomo Electric.

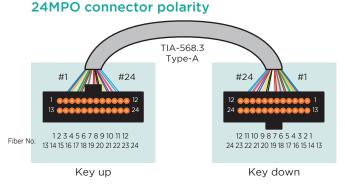
## MPO polarity & Basic connection with optical transceivers

#### 12MPO connector polarity



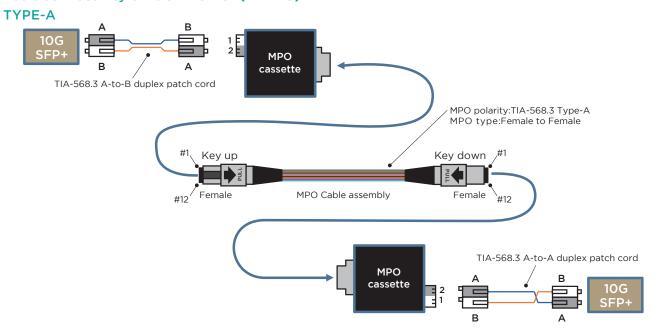


# Key up Key down 1112 910 7 8 5 6 3 4 1 2

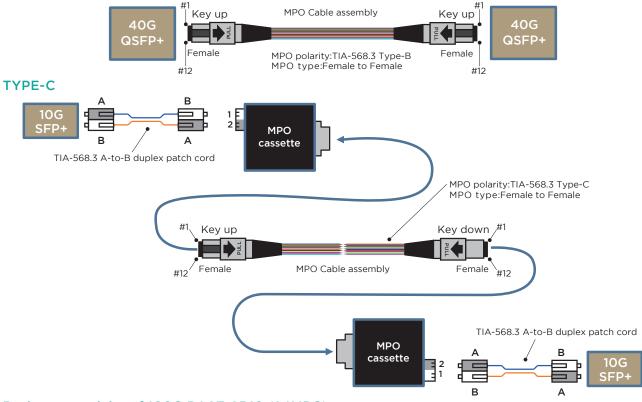


#### MPO polarity & Basic connection with optical transceivers

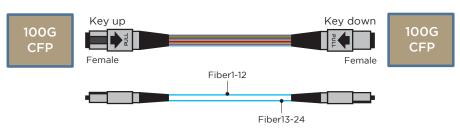
#### Basic connectivity of 10G BASE-SR(12 MPO)



#### Basic connectivity of 40G BASE-SR4 without patch cord (12MPO/Q8MPO)



#### Basic connectivity of 100G BASE-SR10 (24MPO)



24MPO Cable assembly MPO polarity:TIA-568.3 Type-A MPO type:Female to Female

## **Optical Connectors**

#### Tough and Flexible Cable Assembly for Indoor Installation / SC Connector with shutter

#### PureFlex™-slim cable

Adequate strength, remarkable tenacity, and exceptional ease of storage. PureFlex<sup>™</sup>-slim is an epoch-making fiber-optic cable for indoor installation, allowing the technician to handle it as casually as a power cord.

- New face of the PureFlex™ series of sturdy cables are resistant to being stepped on and bending. Just 3 mm in outside diameter, PureFlex™-slim brings about substantial improvements in reliability and look.
- Makes the most of the highly bending-resistant Access series fibers. (Permisisible bending radius of 15mm when incorporating PureAccess™-PB and of 7.5mm for use with PureAccess™-[A2])
- Strong and tenacious, this cable can be tied up to make an excess length compact or can be accommodated in an ONU with ease.



Cable type	PureFlex <sup>™</sup> -slim
Number of fibers	1
Standard cable outside diameter	3.0mm
Permissible side pressure	< 0.1dB @ 1200 N/25mm for 1min
Permissible bending	7.5mm (When incorporating G.657.A2)
radius	10mm (When incorporating G.657.A1)
Applicable connector	SC with shutter







Adequate strength



Exceptional ease of storage

Strong against right-angle bending

#### SC connector with shutter

Substantially improved SC connector with its ease of handling. When disconnected, the shutter at the end of the connector closes to prevent soiling or damage to the ferrule end face.

- When the connector is engaged, the shutter selfretracts in the connector.
- Designed not to allow leakage of light, this connector prevents the light from entering the eye.

#### Fully compatible with SC connector

The SC connector with shutter accommodates any cord or cable that can be attached to an SC connector.

Connector type	s-SC
Applicable fiber (Optical fiber code)	SM(PAA2)
Connecting Loss (To master)	< 0.5dB
Return Loss (Type of polishing)	> 40dB (SPC)
Housing color	Black
Connector boot color	White

#### Connector disengaged from adapter

The shutter housing extends automatically and the metal shutter closes.

#### Connector engaged with adapter

As the shutter opens by itself, the connector serves as an ordinary SC connector.

