



## MPO/MTP® TRUNK CABLE



### FEATURES

- MTP® (US Conec) brand or MPO standard compliant multifiber connector
- Connector's design complies with IEC 61754-7 standards
- 4, 8, 12 and 24-fiber with single mode and multimode options
- Polarity method A, B or C
- LSZH, OFNP, OFNR cable jacket types selection
- Rapid deployment, high density and high reliability
- Extremely low insertion loss and high return loss
- Telcordia GR-1435-CORE issue 2 compliant
- RoHS and REACH materials compliant

### OPTICAL CHARACTERISTICS (applied to 12c MPO/MTP®)

Item	Parameter		Reference
	Standard SM	Standard MM	
Insertion loss typ.	≤ 0.1dB	≤ 0.05dB	IEC 61300-3-4
Insertion loss max.	≤ 0.25dB	≤ 0.15dB	
Return loss	≥ 65dB (APC); ≥ 50dB (UPC)	≥ 40dB	IEC 61300-3-6

### END-FACE GEOMETRY (applied to 12c MPO/MTP®)

Item	Parameter	Reference
Minus Coplanarity	≤ 200nm	IEC 61755-3-31:2015
Ferrule Surface X-Angle	-0.075° to +0.075°	
Ferrule Surface Y-Angle (SM)	7.85° to 8.15°	
Ferrule Surface Y-Angle (MM)	-0.075° to +0.075°	
Fiber Height	1100nm to 1500nm	
Fiber Differential Height-All	≤ 150nm	
Fiber Differential Height-Adj.	≤ 100nm	
Fiber Tip Spherical Radius	≥ 1mm	
Ferrule Surface X-Radius	≥ 2000mm	
Ferrule Surface Y-Radius	≥ 50mm	
Core Dip (MM)	0 to 100nm	
Geometry Limit	≤ 10	

### END-FACE QUALITY (SM)

Zone	Range (µm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	

### END-FACE QUALITY (MM)

Zone	Range (µm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3-35:2015
B: Cladding	65 to 115	None	None	

### CONNECTOR TYPES

Type	Reference	Note
MPO/MTP®	IEC 61754-7	Boot Color: Black Body Sleeve: MM (Beige, Aqua, Magenta), SM (Green, Yellow)

### MECHANICAL CHARACTERISTICS

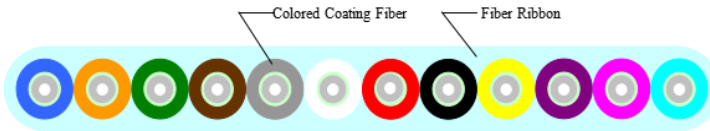
Item	Parameter
Mating cycles	ΔIL ≤ 0.2dB (for 500 mates)

### ENVIRONMENTAL CHARACTERISTICS

Item	Parameter
Operating temperature	-10°C to +60°C
Storage temperature	-20°C to +70°C

### CABLE SPECIFICATIONS (2c to 12c RIBBON CABLE)

#### Cable Structure

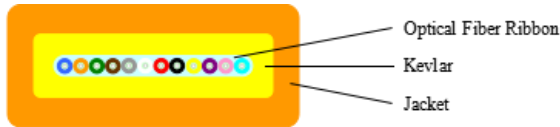


#### Cable Parameters

Fiber Count	Width (mm)	Thickness (mm)	Horizontal Space Between Adjacent Fibers (mm)	Horizontal Space Between End Fibers (mm)	Planarity (mm)
2	≤ 0.700	≤ 0.400	≤ 0.280	≤ 0.280	—
4	≤ 1.220	≤ 0.400	≤ 0.280	≤ 0.835	≤ 35
6	≤ 1.770	≤ 0.400	≤ 0.280	≤ 1.385	≤ 35
8	≤ 2.300	≤ 0.400	≤ 0.300	≤ 1.920	≤ 35
10	≤ 2.850	≤ 0.400	≤ 0.300	≤ 2.450	≤ 35
12	≤ 3.400	≤ 0.400	≤ 0.300	≤ 2.950	≤ 35

### CABLE SPECIFICATIONS (2c to 12c FLAT CABLE)

#### Cable Structure



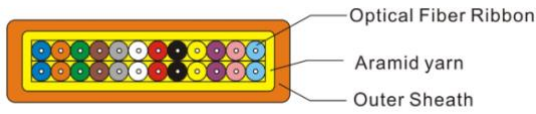
#### Cable Parameters

Fiber count	Cable dimension (mm)	Cable weight (kg/km)	Tensile strength (N)		Crush resistance (N/100mm)		Min. bend radius (mm)		Range of temperature (°C)
			Long Term	Short Term	Long Term	Short Term	Dynamic	Static	
2	2.5×3.5	7.3	80	200	200	500	50	30	-20 to 60
4	2.5×3.5	7.4	80	200	200	500			
6	2.5×4.0	8.2	80	200	200	500			
8	2.5×4.5	9.3	80	200	200	500			
12	2.5×5.0	10.0	80	200	200	500			

Fiber count		4	6	8	12
Outer dimension D*H (mm) ± 0.3mm		3.5*2.5	3.8*2.5	4.5*2.5	5.0*2.5
Nominal weight (kg/km)		12	13	15	17
Max. tensile strength (N)	Short-term	200			
	Long-term	80			
Min. bending radius (mm)	Dynamic	35H			
	Static	25H			
Crush resistance (N/100mm <sup>2</sup> )		500			



**CABLE SPECIFICATIONS (24c FLAT CABLE)**

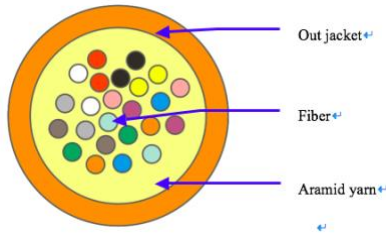


**Cable Parameters**

Fiber Count	24	
Outer dimension D*H (mm)	(5.0±0.5)*(2.9±0.3)	
Nominal weight (kg/km)	16	
Max. Tensile Strength(N)	Short-term	150
	Long-term	80
Min. bending radius (mm)	Dynamic	50
	Static	35

**CABLE SPECIFICATIONS (2c to 24c ROUND CABLE)**

**Cable Structure**

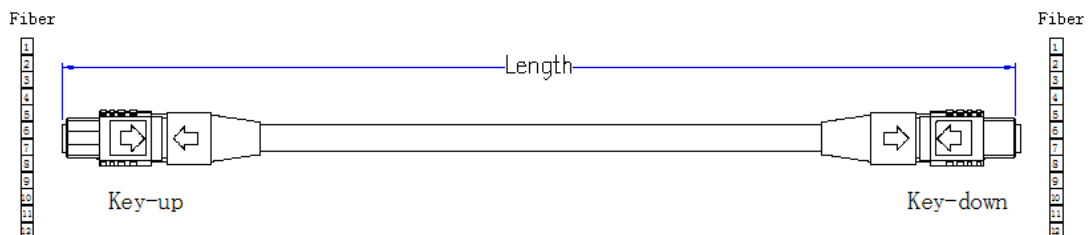


**Cable Parameters**

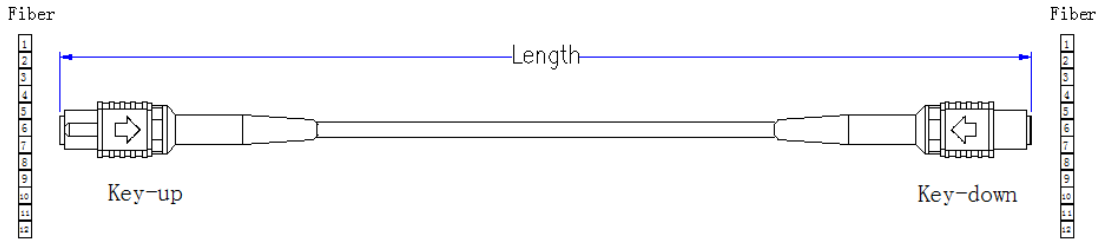
Fiber count	2 to 24		
Outer diameter (mm)	2.95±0.1		
Thickness (mm)	0.50±0.05		
Max. tensile strength (N)	Short-term	200	
	Long-term	100	
Max. crush resistance (N/100mm <sup>2</sup> )	Short-term	500	
	Long-term	150	
Min. bending radius (mm)	Short-term	20D	
	Long-term	10D	
Material	PVC	LSZH	OFNP
Nominal weight (kg/km)	7.2	7.6	8.1
Color	Customized		
Strength members	Aramid yarn		
Temperature (°C)	Storage or transportation	-20 to 70	
	Storage or transportation		

**CONFIGURATION DIAGRAMS**

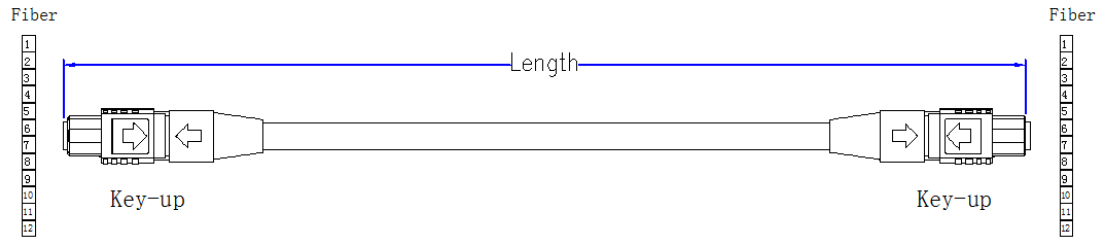
**12c Type A (for flat cable and ribbon cable): Key up/Key down**



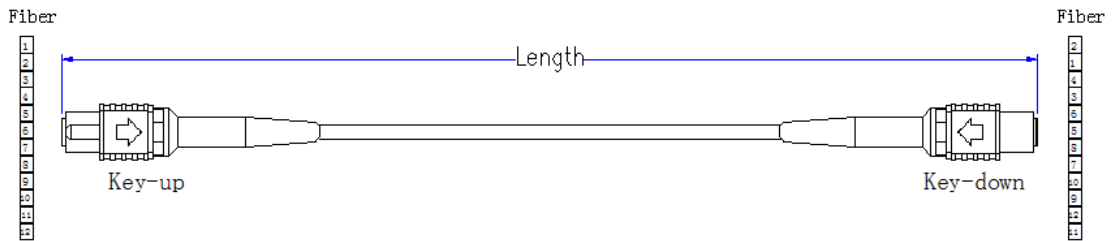
**12c Type A (for round cable): Key up/Key down**



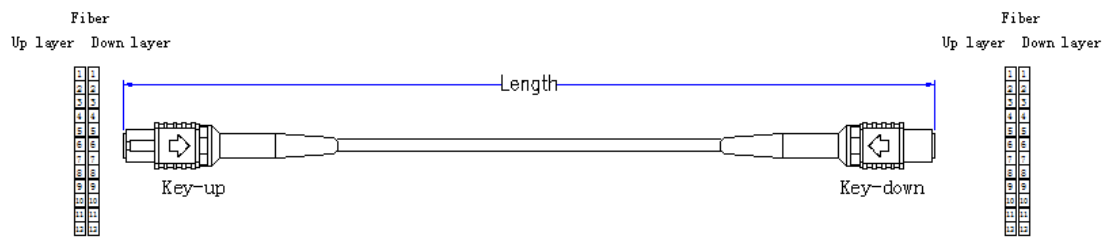
**12c Type B (for flat cable, ribbon cable and round cable): Key up/Key up**



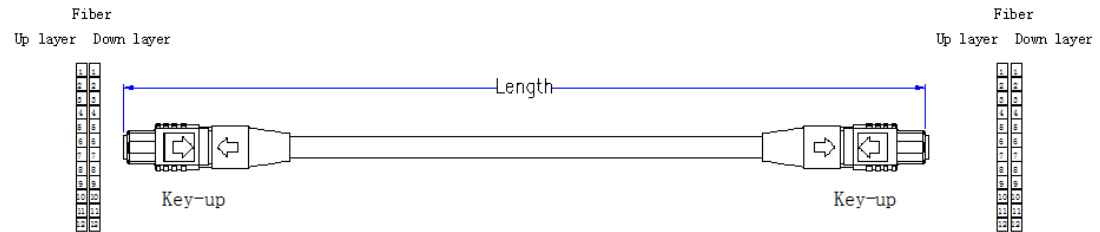
**12c Type C (for round cable): Key up/Key down**



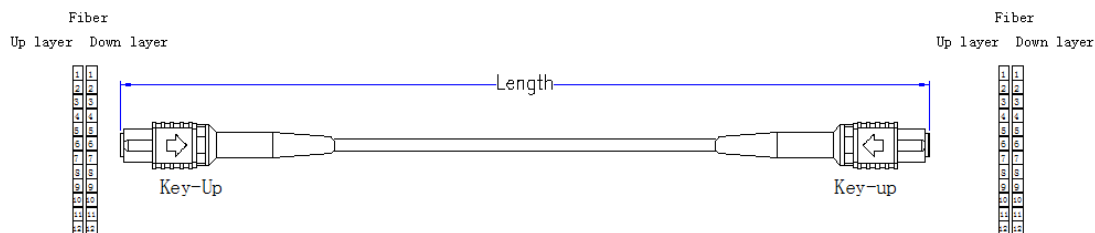
**24c Type A (for round cable): Key up/Key down**



**24c Type B (for flat cable and ribbon cable): Key up/Key up**



**24c Type B (for round cable): Key up/Key up**



**ORDER INFORMATION**

MPOTC	①	②	③	④	⑤	⑥	⑦	⑧	⑨
① [Connector A]	1: MTP/UPC (Female)	2: MPO/UPC (Female)	3: MTP/APC (Female)	4: MPO/APC (Female)	5: MTP/UPC (Male)	6: MPO/UPC (Male)	7: MTP/APC (Male)	8: MPO/APC (Male)	
② [Connector B]	1: MTP/UPC (Female)	2: MPO/UPC (Female)	3: MTP/APC (Female)	4: MPO/APC (Female)	5: MTP/UPC (Male)	6: MPO/UPC (Male)	7: MTP/APC (Male)	8: MPO/APC (Male)	
③ [Polarity]	1: Type A	2: Type B	3: Type C						
④ [Fiber type]	1: G652D	2: G657A1	3: G657A2	4: G657B3	5: OM1	6: OM2	7: OM3	8: OM4	
⑤ [Fiber count]	1: 4	2: 8	3: 12	4: 24					
⑥ [Cable type]	1: Bare ribbon fiber	2: Ribbon cable	3: Round cable						
⑦ [Jacket type]	1: No jacket	2: PVC	3: LSZH	4: OFNR	5: OFNP				
⑧ [Jacket color]	1: Yellow	2: Orange	3: Aqua	4: Magenta	5: Customized	6: Bare			
⑨ [Cable length]	00D5: 0.5m	01D5: 1.5m	0001: 1m	0010: 10m	0100: 100m				