

PFT series optical connectors

Brief introduction

-Enterprise standard: Q/21EJ1891-2012

-This series are applied in digital radar and big data optical tele-communication field, and can be mated with MT optical interface.

Feature:

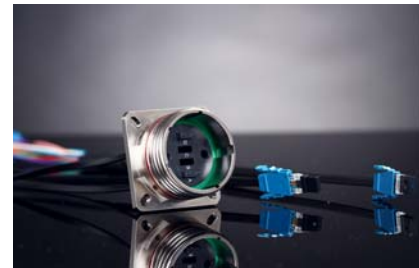
-The mated contacts are M12, M24. Standard MT interface, reliable performance, easy operation, high integrated. This series achieve high density optical signal transmission: 12 loops, 24 loops, 48 loops, 96 loops.

-Different shell materials and plating, applicable for different environments

-Five-keyway orientation, blind mating, anti mis-mating function

-This series include various optical fiber assembly types; meet different need.

-The assembly is mounted with armored fiber, withstand pressure, ruggedized



Main technical characteristics

—Insertion loss: $\leq 0.6\text{dB}$

—Operating temperature: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$

—Vibration: 10~2000Hz, power chart density $0.06\text{ g}^2/\text{Hz}$

—Shock: acceleration 490m/s^2 , lasting 11ms

—Endurance: 500 cycles

—Damp heat: 24h is a period. 10 periods, $60^{\circ}\text{C} 95\%\text{RH}-30^{\circ}\text{C} 95\% \text{RH}$ cycling.

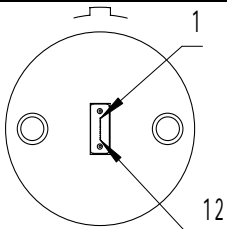
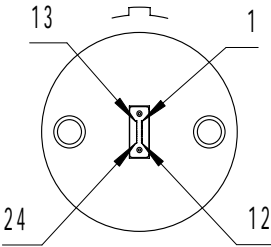
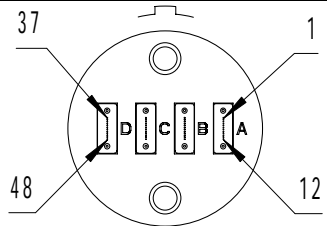
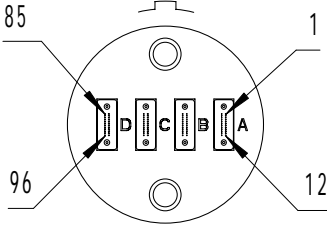
[Connector ordering information]

Basic series	PFT	31	F	T	4	N	32
Shell size	18, 31						
Shell plating	W-aluminum alloy, olive green cadmium plating F-aluminum alloy, electroless nickel plating K- stainless steel passive						
Connector type	T-plug F-receptacle						
Contact type	1/2/3/4 (See the contact definition for details.)						
Polarization	N-normal; A/B/C/D/E-alternative						
Design code	32... (Normal type doesn't have this item.)						

Contact type definition figure

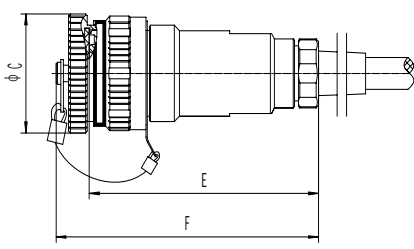
Contact type	Definition	Applicable shell size	Applicable armored fiber type
1	Contain 1 contact, can transmit 12 loops optical signal	18	C12*12 (φ12mm, 12 cores)
2	Contain 1 contact, can transmit 24 loops optical signal	18	C12*24 (φ12mm, 24 cores)
3	Contain 4 contacts, each contact can transmit 12 loops optical signal	31	C12*48 (φ12mm, 48 cores)
4	Contain 4 contacts, each contact can transmit 24 loops optical signal	31	C12*96 (φ12mm, 96 cores)

Configuration (Receptacle)

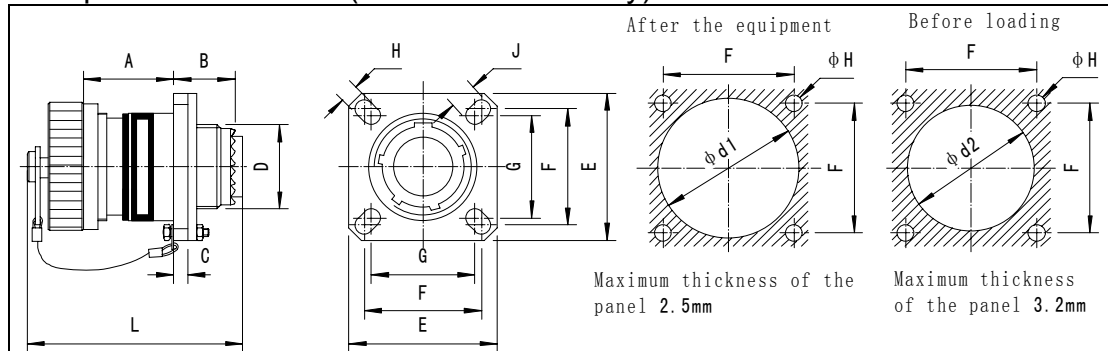
Shell size / Contact type	18# shell	31# shell
1		--
2		--
3	--	
4	--	

Outline dimensions

Plug dimensions

	Shell size	C max	E max	F max
	18	29	92	102
	31	43.2	92	106

Receptacle dimensions (non back accessory)

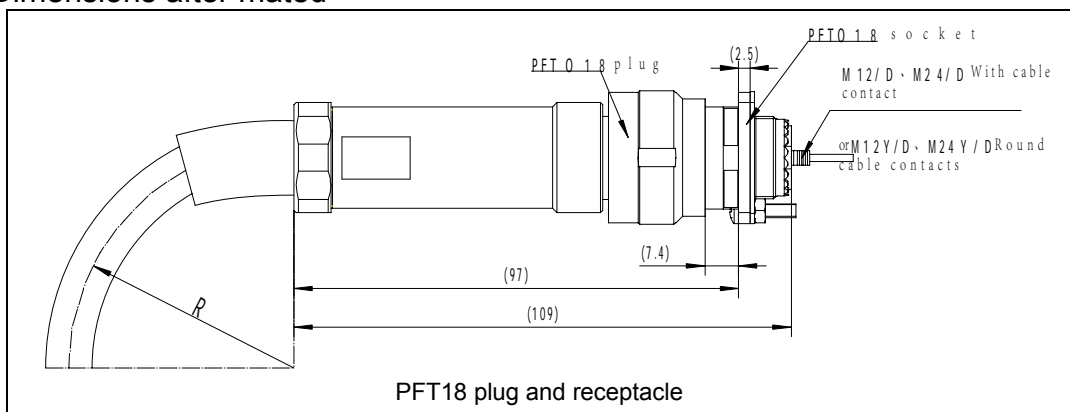


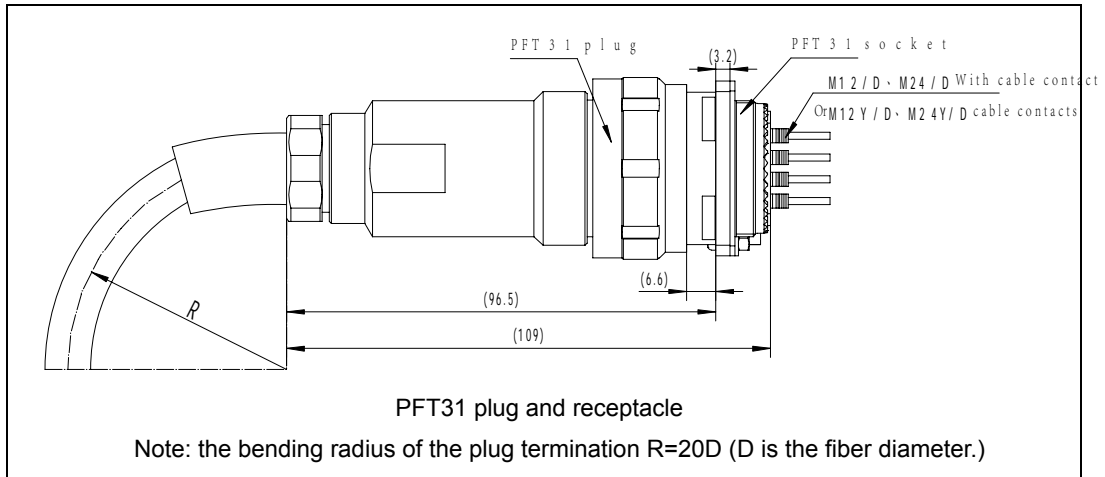
Note: A is the dimension from the mounting surface to the receptacle termination.

Shell size	A max	B max	C max	L max	D	E	F	G	H	J	d1 min	d2 min
18	20.90	10.80	2.50	42	M18×1-6g	28.60	23.01	20.62	3.25	4.93	23.42	19.05
31	20.10	11.40	3.20	42	M31×1-6g	39.70	31.75	29.36	3.25	4.93	36.12	32.16

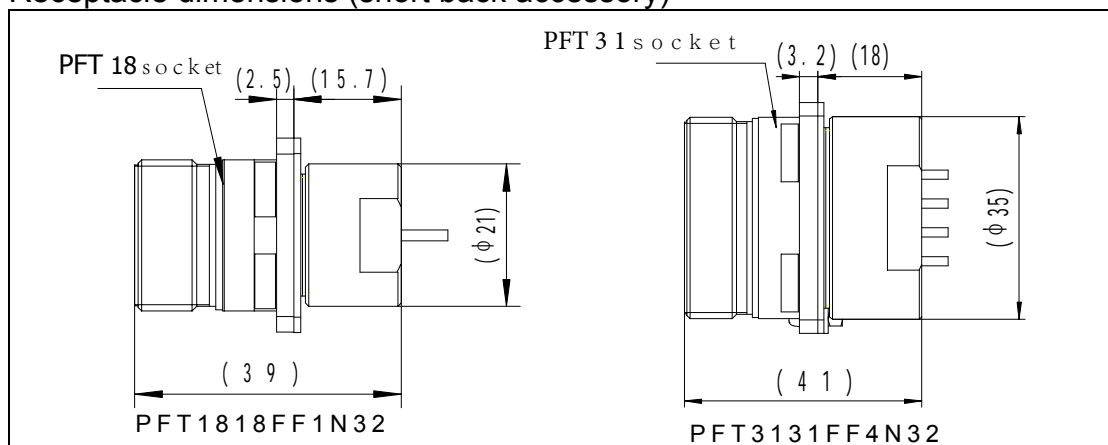
Note: the receptacle is empty receptacle (non contact), and is ordered separately. Applicable contact patch cord type: M12/D, M24/D ribbon fiber or M12Y/D, M24Y/D circular fiber.

Dimensions after mated



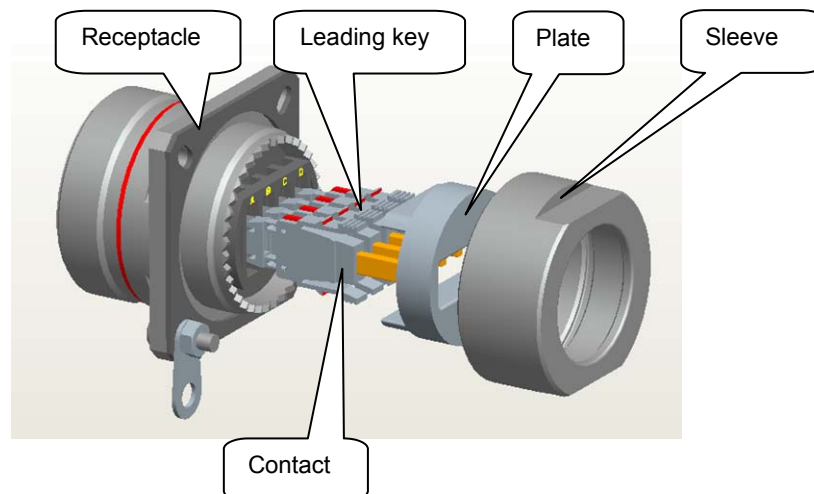


Receptacle dimensions (short back accessory)



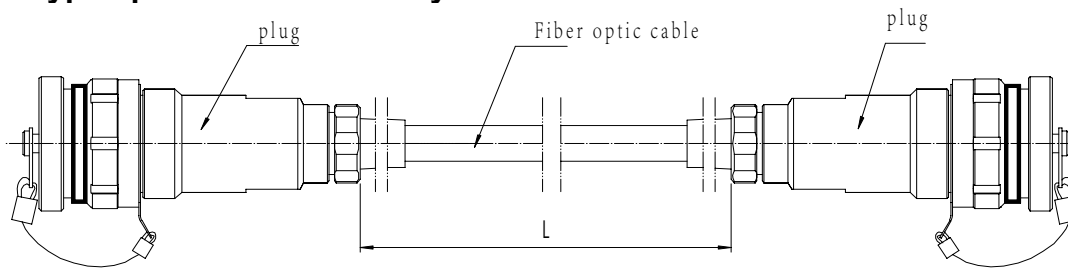
Note:

1. It uses rear mounting cut-out, and achieves front & rear mounting.
2. The receptacle is empty (without contacts), can be ordered separately. Applicable contact patch cord: M12/D, M24/D ribbon fiber or M12Y/D, M24Y/D circular fiber.



Note: Take PFT31FF4N32 for example, the contacts in the picture can be put through the crimp plate and sleeve.

PFT series optical fiber assembly I type optical fiber assembly



[Ordering information]

End 1	PFT18KT1N	-PFT18KT1N	-C12*12	-MIV	30
End 2	Plug type is provided according to customers' need.				
Fiber characteristics	φ12 diameter, 12 cores				
Transmission mode	M-MM 62.5/125 MI-MM 50/125 MIV-MM 50/125 OM3 high speed fiber				
Fiber length	L is made according to customers' need (Unit: m).				

[Part number example]

Example 1: PFT18KT1N-IAO18KT1N-C12*12-MIV30

Both ends of the fiber assembly are PFT18KT1N plugs, mounted with φ12mm 12-core MM (50/125) armored fiber, total length 30m.

Example 2: PFT18KT2N-PFT18KT2N-C12*24-MIV30

Both ends of the fiber assembly are PFT18KT2N plugs, mounted with φ12mm 24-core MM (50/125) armored fiber, total length 30m.

Example 3: PFT31KT3N-PFT31KT3N-C12*48-MIV30

Both ends of the fiber assembly are PFT31KT3N plugs, mounted with φ12mm 48-core MM (50/125) armored fiber, total length 30m.

Example 4: PFT31KT4N-PFT31KT4N-C12*96-MIV30

Both ends of the fiber assembly are PFT31KT4N plugs, mounted with φ12mm 96-core MM (50/125) armored fiber, total length 30m.

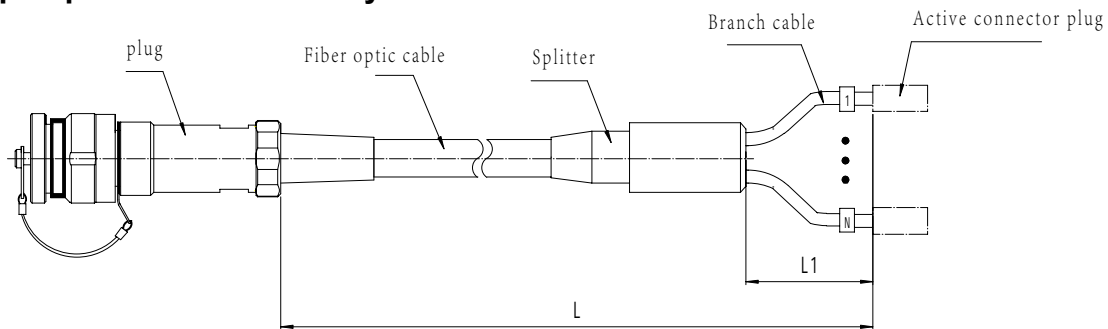
[Recommended type]

Part number	Description
PFT18KT1N-PFT18KT1N-C12*12-MIV3	Both ends are PFT18KT1N, 12 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 3m
PFT18KT1N-PFT18KT1N-C12*12-MIV5	Both ends are PFT18KT1N, 12 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 5m
PFT18KT1N-PFT18KT1N-C12*12-MIV10	Both ends are PFT18KT1N, 12 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 10m
PFT18KT1N-PFT18KT1N-C12*12-MIV20	Both ends are PFT18KT1N, 12 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 20m
PFT18KT1N-PFT18KT1N-C12*12-MIV30	Both ends are PFT18KT1N, 12 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 30m
PFT18KT2N-PFT18KT2N-C12*24-MIV3	Both ends are PFT18KT2N, 24 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 3m
PFT18KT2N-PFT18KT2N-C12*24-MIV5	Both ends are PFT18KT2N, 24 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 5m
PFT18KT2N-PFT18KT2N-C12*24-MIV10	Both ends are PFT18KT2N, 24 loops signal, Φ12mm MM

	(50/125) OM3 high speed fiber, 10m
PFT18KT2N-PFT18KT2N-C12*24-MIV20	Both ends are PFT18KT2N, 24 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 20m
PFT18KT2N-PFT18KT2N-C12*24-MIV30	Both ends are PFT18KT2N, 24 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 30m
PFT31KT3N-PFT31KT3N-C12*48-MIV3	Both ends are PFT31KT3N, 48 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 3m
PFT31KT3N-PFT31KT3N-C12*48-MIV5	Both ends are PFT31KT3N, 48 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 5m
PFT31KT3N-PFT31KT3N-C12*48-MIV10	Both ends are PFT31KT3N, 48 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 10m
PFT31KT3N-PFT31KT3N-C12*48-MIV20	Both ends are PFT31KT3N, 48 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 20m
PFT31KT3N-PFT31KT3N-C12*48-MIV30	Both ends are PFT31KT3N, 48 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 30m
PFT31KT4N-PFT31KT4N-C12*96-MIV3	Both ends are PFT31KT4N, 96 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 3m
PFT31KT4N-PFT31KT4N-C12*96-MIV5	Both ends are PFT31KT4N, 96 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 5m
PFT31KT4N-PFT31KT4N-C12*96-MIV10	Both ends are PFT31KT4N, 96 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 10m
PFT31KT4N-PFT31KT4N-C12*96-MIV20	Both ends are PFT31KT4N, 96 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 20m
PFT31KT4N-PFT31KT4N-C12*96-MIV30	Both ends are PFT31KT4N, 96 loops signal, Φ12mm MM (50/125) OM3 high speed fiber, 30m

Note: If customers have special requirement, write it in the order.

II type optical fiber assembly



[Ordering information]

End 1	PFT18KT1N	-12FC	-C12*12	-2	MIV	10	/	0.3
End 2	Can be ST/LC/SC, etc.							
Fiber characteristics	φ12mm diameter, 12-core							
Branch fiber diameter	According to customers' need. (Unit: mm)							
Transmission mode	M-MM 62.5/125 μm MI-MM 50/125 μm MIV-MM 50/125 μm , OM3 high speed fiber							
Fiber length L	L is according to customers' need. (Unit: m)							
Separator								
Branch fiber length L1	L1 is according to customers' need. (Unit: m)							



[Recommended type]

Part number	Description
PFT18KT1N-12FC-C12*12-2MIV2/0.3	End 1 is PFT18KT1N, end 2 is 12 FC, 12 loops signal,Φ12mm MM (50/125) OM3 high speed fiber, branch fiber diameter Φ2mm, total length 2m, branch fiber length 0.3m
PFT18KT1N-12FC-C12*12-2MIV3/0.3	End 1 is PFT18KT1N, end 2 is 12 FC, 12 loops signal,Φ12mm MM (50/125) OM3 high speed fiber, branch fiber diameter Φ2mm, total length 3m, branch fiber length 0.3m
PFT18KT1N-12FC-C12*12-2MIV5/0.5	End 1 is PFT18KT1N, end 2 is 12 FC, 12 loops signal,Φ12mm MM (50/125) OM3 high speed fiber, branch fiber diameter Φ2mm, total length 5m, branch fiber length 0.5m
PFT18KT1N-12FC-C12*12-2MIV10/0.5	End 1 is PFT18KT1N, end 2 is 12 FC, 12 loops signal,Φ12mm MM (50/125) OM3 high speed fiber, branch fiber diameter Φ2mm, total length 10m, branch fiber length 0.5m
PFT18KT1N-12FC-C12*12-2MIV20/0.5	End 1 is PFT18KT1N, end 2 is 12 FC, 12 loops signal,Φ12mm MM (50/125) OM3 high speed fiber, branch fiber diameter Φ2mm, total length 20m, branch fiber length 0.5m
PFT18KT1N-12FC-C12*12-2MIV30/0.5	End 1 is PFT18KT1N, end 2 is 12 FC, 12 loops signal,Φ12mm MM (50/125) OM3 high speed fiber, branch fiber diameter Φ2mm, total length 30m, branch fiber length 0.5m

Note: ①For movable plug, customers can choose FC/ST/LC, etc.

②We suggest customers choose 0.1m/0.2m/0.3m/0.5m for branch fiber length, and the branch fiber length not surpass 0.5m.

[M12/D, M24/D ribbon fiber]

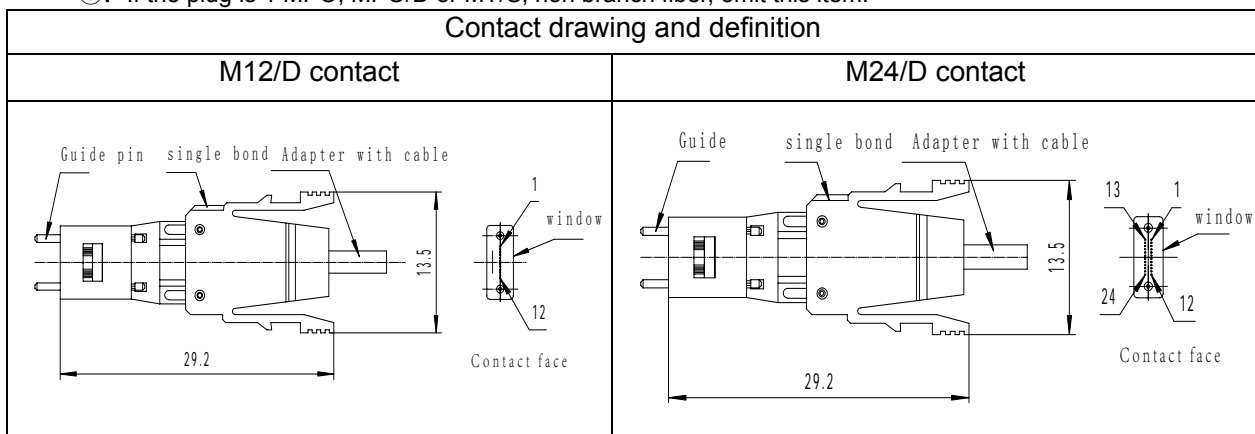
[Ordering information]

Ribbon fiber code	RF- M24/D- 24 ^① LC- 0.9 ^② M 0.4 /0.2 ^③
Contact type	M24/D、M12/D
Plug number ^①	
Plug type	LC, FC, SC, MPO, MPO/D, MT/S, A8T, JY599/16GP, JY599/12GP, etc.
Branch fiber diameter ^②	0.9
Transmission mode	M-MM 62.5/125 MI-MM 50/125 MIV-MM 50/125 OM3 high speed fiber
Fiber length	Unit: m
Branch fiber length ^③	Unit: m

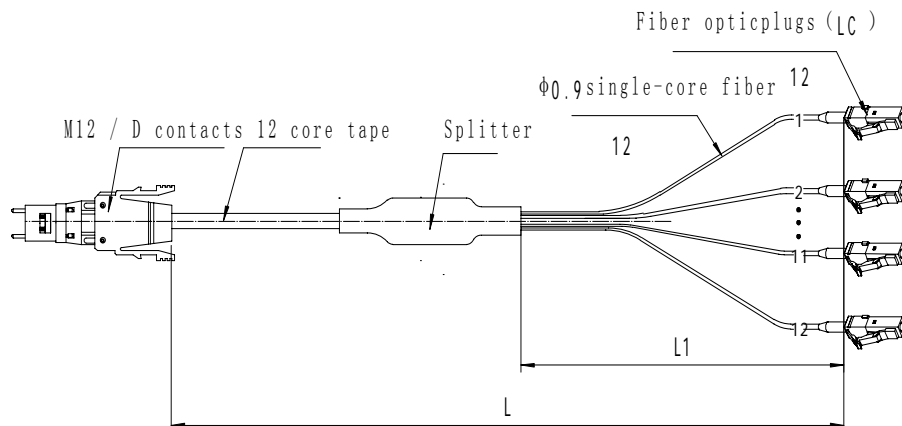
①: If only one plug here, don't need to write the quantity.

②: If the plug type is 2 MPO, MPO/D or MT/S, the branch fiber is ribbon fiber, non branch fiber diameter, omit this item in the part number.

③: If the plug is 1 MPO, MPO/D or MT/S, non branch fiber, omit this item.



Part number example 1: RF-M12/D-12LC-0.9MIVL/L1

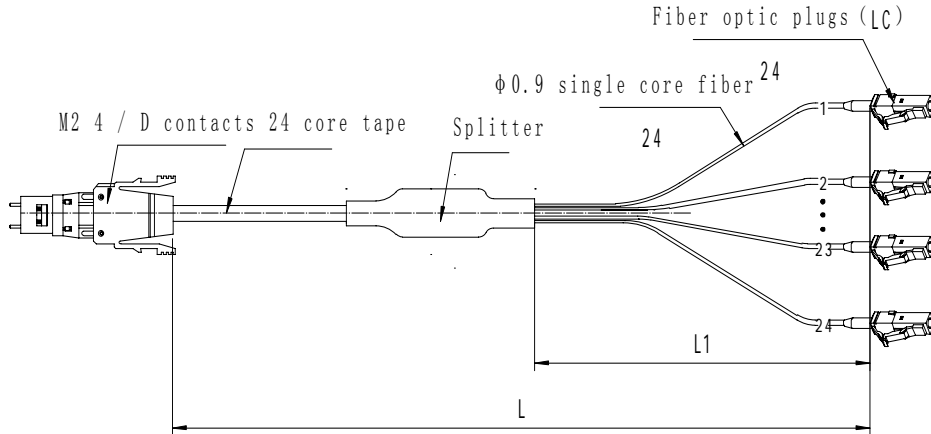


[Recommended type]

Part number	Description
RF-M12/D-12LC-0.9MIV0.3/0.1	End 1 is M12/D contact, end 2 is 12 LC, 12-core MM (50/125) OM3 high speed ribbon fiber, branch fiber diameter ϕ 0.9mm, total length 0.3m, branch fiber length 0.1m
RF-M12/D-12LC-0.9MIV0.5/0.2	End 1 is M12/D contact, end 2 is 12 LC, 12-core MM (50/125) OM3

	high speed ribbon fiber, branch fiber diameter Φ 0.9mm, total length 0.5m, branch fiber length 0.2m
RF-M12/D-12LC-0.9MIV1/0.3	End 1 is M12/D contact, end 2 is 12 LC, 12-core MM (50/125) OM3 high speed ribbon fiber, branch fiber diameter Φ 0.9mm, total length 1m, branch fiber length 0.3m
Note: For end 2 movable plug, customers can choose FC/ST/LC, etc.	

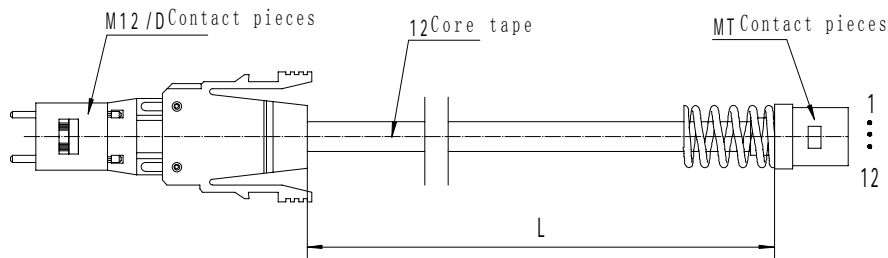
Part number example 2: RF-M24/D-24LC-0.9MIV/L1



[Recommended type]

Part number	Description
RF-M24/D-24LC-0.9MIV0.3/0.1	End 1 is M24/D contact, end 2 is 24 LC, 24-core MM (50/125) OM3 high speed ribbon fiber, branch fiber diameter Φ 0.9mm, total length 0.3m, branch fiber length 0.1m
RF-M24/D-24LC-0.9MIV0.5/0.2	End 1 is M24/D contact, end 2 is 24 LC, 24-core MM (50/125) OM3 high speed ribbon fiber, branch fiber diameter Φ 0.9mm, total length 0.5m, branch fiber length 0.2m
RF-M24/D-24LC-0.9MIV1/0.3	End 1 is M24/D contact, end 2 is 24 LC, 24-core MM (50/125) OM3 high speed ribbon fiber, branch fiber diameter Φ 0.9mm, total length 1m, branch fiber length 0.3m
Note: For end 2 movable plug, customers can choose FC/ST/LC, etc.	

Part number example 3: RF-M12/D-MT/S-MIVL



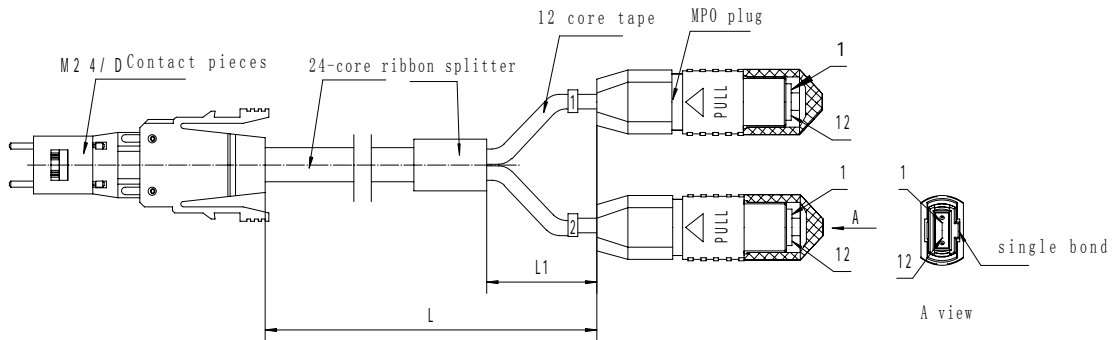
Note: MT contact 1 ~ 12 cavities are according to M12/D contact 1 ~ 12 cavities.

[Recommended type]

Part number	Description
RF-M12/D-MT/S-MIV0.1	End 1 is M12/D contact, end 2 is MT/S contact, 12-core MM (50/125) OM3 high speed ribbon fiber, total length 0.1m
RF-M12/D-MT/S-MIV0.2	End 1 is M12/D contact, end 2 is MT/S contact, 12-core MM (50/125) OM3 high speed ribbon fiber, total length 0.2m
RF-M12/D-MT/S-MIV0.3	End 1 is M12/D contact, end 2 is MT/S contact, 12-core MM (50/125) OM3 high speed ribbon fiber, total length 0.3m

RF-M12/D-MT/S-MIV0.5	End 1 is M12/D contact, end 2 is MT/S contact, 12-core MM (50/125) OM3 high speed ribbon fiber, total length 0.5m
RF-M12/D-MT/S-MIV1	End 1 is M12/D contact, end 2 is MT/S contact, 12-core MM (50/125) OM3 high speed ribbon fiber, total length 1m

Part number example 4: RF-M24/D-2MPO-MIVL/L1



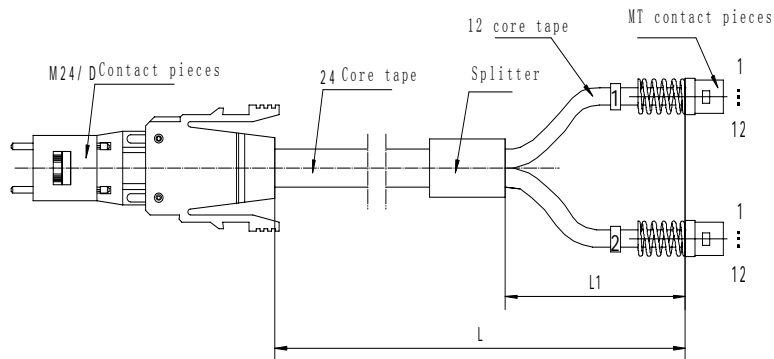
Note: 1# MPO plug 1~12 cavities are according to M24/D contact 1~12 cavities.

2# MPO plug 1~12 cavities are according to M24/D contact 13~24 cavities.

[Recommended type]

Part number	Description
RF-M24/D-2MPO-MIV0.3/0.1	End 1 is M24/D contact, end 2 is 2 MPO, 24-core MM (50/125) OM3 high speed ribbon fiber, total length 0.3m, branch fiber length 0.1m.
RF-M24/D-2MPO-MIV0.5/0.2	End 1 is M24/D contact, end 2 is 2 MPO, 24-core MM (50/125) OM3 high speed ribbon fiber, total length 0.5m, branch fiber length 0.2m.
RF-M24/D-2MPO-MIV1/0.3	End 1 is M24/D contact, end 2 is 2 MPO, 24-core MM (50/125) OM3 high speed ribbon fiber, total length 1m, branch fiber length 0.3m.

Part number example 5: RF-M24/D-2MT/S-MIVL/L1



Note: 1# MT contact 1~12 cavities are according to M24/D contact 1~12 cavities.

2# MT contact 1~12 cavities are according to M24/D contact 13~24 cavities.

[Recommended type]

Part number	Description
RF-M24/D-2MT/S-MIV0.3/0.1	End 1 is M24/D contact; end 2 is 2 MT/S contacts, 24-coreMM (50/125) OM3 high speed ribbon fiber, total length 0.3m, branch fiber length 0.1m.
RF-M24/D-2MT/S-MIV0.5/0.2	End 1 is M24/D contact; end 2 is 2 MT/S contacts, 24-coreMM (50/125) OM3 high speed ribbon fiber, total length 0.5m, branch fiber length 0.2m.
RF-M24/D-2MT/S-MIV1/0.3	End 1 is M24/D contact; end 2 is 2 MT/S contacts, 24-coreMM (50/125) OM3 high speed ribbon fiber, total length 1m, branch fiber length 0.3m.

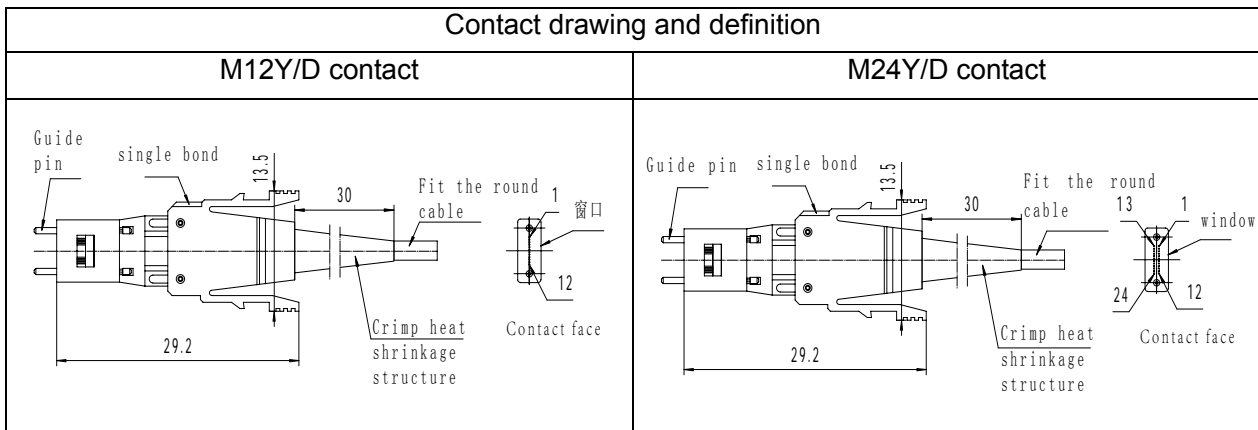
[M12Y/D, M24Y/D circular fiber]

[Ordering information]

	M24Y/D-	24^①	LC-	C3.5*24-^②	0.9^②	M	0.4	/0.2^③
Contact type	M24Y/D, M12Y/D							
Plug number ^①	24 movable plug							
Plug type	LC, FC, SC, MTPYL, MTPYL/D, MT/S, A8T, JY599/16GP, JY599/12GP, etc.							
Fiber characteristics	Diameter 3.5mm, 24-core fiber							
Branch fiber diameter ^②	0.9mm							
Transmission mode	M-MM 62.5/125 MI-MM 50/125 MIV-MM high speed fiber50/125							
Fiber length	Unit: m							
Branch fiber length ^③	Unit: m							

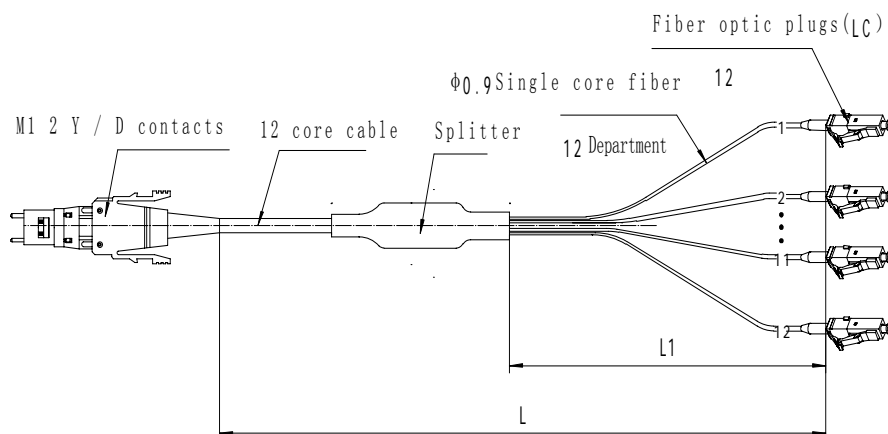
①: If only one plug here, don't need to write the quantity.

②: If the plug type is 2 MTPYL or MTPYL/D, this characteristics unavailable, omit this item in the part number.



[Optic fiber patch cord ordering example]

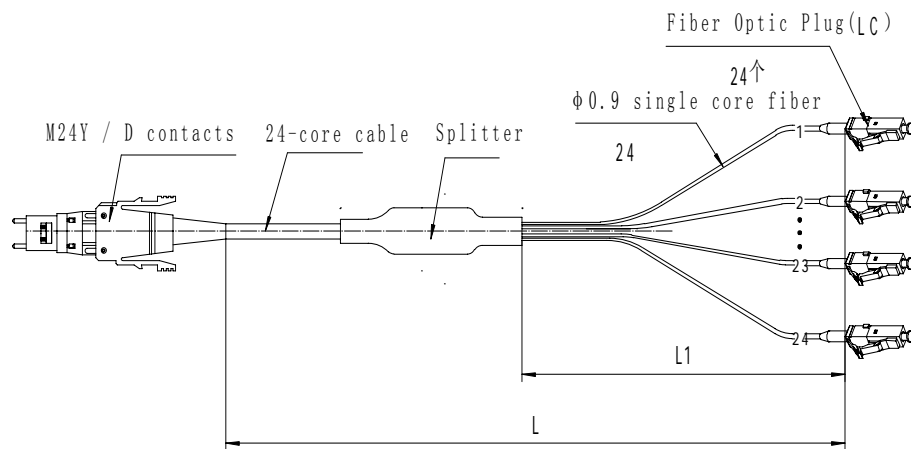
Part number example 1: M12Y/D-12LC-C3*12-0.9MIVL/L1



[Recommended type]

Part number	Description
M12Y/D-12LC-C3*12-0.9MIV0.3/0.1	End 1 is M12Y/D contact, end 2 is 12 LC, ϕ 3mm 12-core MM (50/125) OM3 high speed circular fiber, branch fiber diameter ϕ 0.9mm, total length 0.3m, branch fiber length 0.1m.
M12Y/D-12LC-C3*12-0.9MIV0.5/0.2	End 1 is M12Y/D contact, end 2 is 12 LC, ϕ 3mm 12-core MM (50/125) OM3 high speed circular fiber, branch fiber diameter ϕ 0.9mm, total length 0.5m, branch fiber length 0.2m.
M12Y/D-12LC-C3*12-0.9MIV1/0.3	End 1 is M12Y/D contact, end 2 is 12 LC, ϕ 3mm 12-core MM (50/125) OM3 high speed circular fiber, branch fiber diameter ϕ 0.9mm, total length 1m, branch fiber length 0.3m.
Note: For end 2 movable plug, customers can choose FC/ST/LC, etc.	

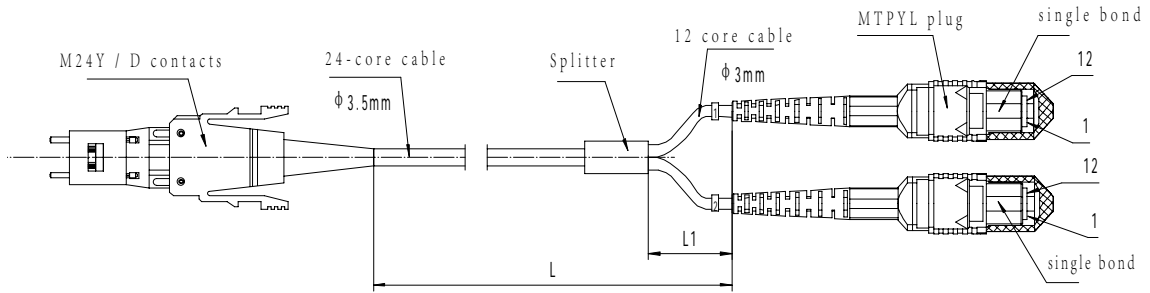
Part number example 2: M24Y/D-24LC-C3.5*24-0.9MIVL/L1



[Recommended type]

Part number	Description
M24Y/D-24LC-C3.5*24-0.9MIV0.3/0.1	End 1 is M24Y/D contact, end 2 is 24 LC, ϕ 3.5mm 24-core MM (50/125) OM3 high speed circular fiber, branch fiber diameter ϕ 0.9mm, total length 0.3m, branch fiber length 0.1m.
M24Y/D-24LC-C3.5*24-0.9MIV0.5/0.1	End 1 is M24Y/D contact, end 2 is 24 LC, ϕ 3.5mm 24-core MM (50/125) OM3 high speed circular fiber, branch fiber diameter ϕ 0.9mm, total length 0.5m, branch fiber length 0.1m.
M24Y/D-24LC-C3.5*24-0.9MIV0.5/0.2	End 1 is M24Y/D contact, end 2 is 24 LC, ϕ 3.5mm 24-core MM (50/125) OM3 high speed circular fiber, branch fiber diameter ϕ 0.9mm, total length 0.5m, branch fiber length 0.2m.
M24Y/D-24LC-C3.5*24-0.9MIV1/0.3	End 1 is M24Y/D contact, end 2 is 24 LC, ϕ 3.5mm 24-core MM (50/125) OM3 high speed circular fiber, branch fiber diameter ϕ 0.9mm, total length 1m, branch fiber length 0.3m.
Note: For end 2 movable plug, customers can choose FC/ST/LC, etc.	

Part number example 3: M24Y/D-2MTPYL-MIVL/L1



Note: 1# MTPYL plug 1~12 cavities are according to M24Y/D contact 1~12 cavities.

2# MTPYL plug 1~12 cavities are according to M24Y/D contact 13~24 cavities.

[Recommended type]

Part number	Description
M24Y/D-2MTPYL-MIV0.3/0.1	End 1 is M24Y/D contact; end 2 is 2 MTPYL contacts, 24-coreMM (50/125) OM3 high speed circular fiber, total length 0.3m, branch fiber length 0.1m.
M24Y/D-2MTPYL-MIV0.5/0.2	End 1 is M24Y/D contact; end 2 is 2 MTPYL contacts, 24-coreMM (50/125) OM3 high speed circular fiber, total length 0.5m, branch fiber length 0.2m.
M24Y/D-2MTPYL-MIV1/0.3	End 1 is M24Y/D contact; end 2 is 2 MTPYL contacts, 24-coreMM (50/125) OM3 high speed circular fiber, total length 1m, branch fiber length 0.3m.