

Waterproof Optical Multiple-Fiber Connectors

MF Series



■ Features

1. Waterproof Structure

These waterproof optical multiple-fiber connectors are ideal for outdoor optical fiber transmission systems.

2. Abundant Variations

Type Item	Screw Fastening Type				Bayonet Fastening Type			
	2 Fibers	4 Fibers	6 Fibers	8 Fibers	2 Fibers	4 Fibers	6 Fibers	8 Fibers
Plug	○	○	○	○	○	○	○	○
Jack	○	○	○	○	○	○	○	○
Receptacle (Square flange)	○	○	○	○	○	○	○	○
Receptacle (Bulk head)	○	○	○	○	○	○	○	○

Screw fastening connectors and bayonet fastening connectors can be used to suit the application, as required.

■ Applications

Outdoor optical fiber transfer systems, LAN, CATV, CPU optical channels, etc.

Product Standards

Rating	Operating temperature range	-25°C~70°C	Storage temperature range	-25°C~70°C
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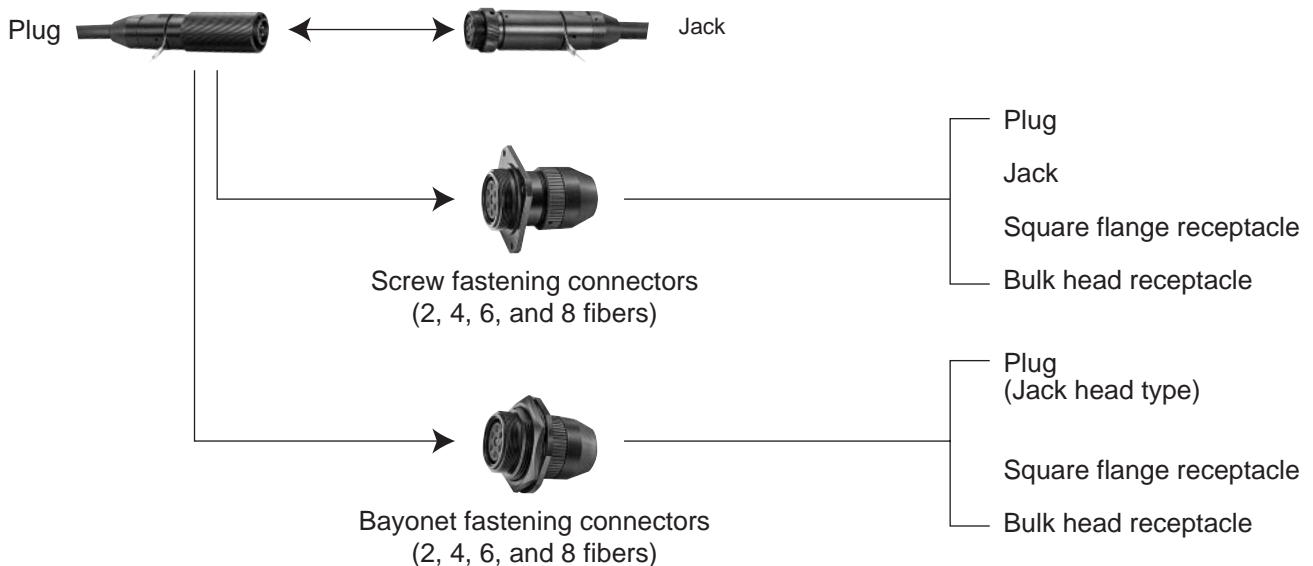
	Item	Test Method (JIS C 5961)	Standard
※	Insertion loss	1,300nm wavelength (LED)	1 dB or less
Mechanical Performance	Cable clamp strength (Pulling in direction of axis)	Apply 148 N of pulling force between connector and cable.	1) Insertion loss fluctuation after test: 0.3 dB or less 2) No irregularity in clamp section or cable 1) Insertion loss fluctuation after test: 0.3 dB or less 2) No damage, cracks, or part looseness
	Repetitive operation	50 times	
	Vibration resistance	Vibration range of 10 to 55 Hz, in 2 directions, 2 hours each	
	Shock resistance	Acceleration of 981 m/s ² , in the direction of 2 axes, 10 times each	
Environmental performance	Temperature cycle	Temperature -40 to 75°C, 42 cycles	No conspicuous corrosion
	Heat resistance	Leave for 960 hours at a temperature of 85°C	
	Cold resistance	Leave for 960 hours at a temperature of -25°C	
	Salt fog	Left in a 5% concentration of salt fog for 48 hours	

※Optical performance is for GI-50/125 fiber.

Materials

Part Name	Material	Processing
Plug housing	Brass/Aluminum	Olive drab zinc plating
Coil spring	Stainless steel	
Ferrule	Zirconia	
Jack housing	Brass/Aluminum	Olive drab zinc plating
Split sleeve	Copper alloy	
Receptacle housing	Brass/Aluminum	Olive drab zinc plating
Ferrule case	Polybutylene terephthalate	

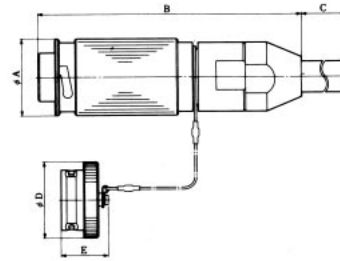
Types



※Cabling for use with plugs and jacks consists of group spacers and layer-type cable.

■ Bayonet Fastening Type

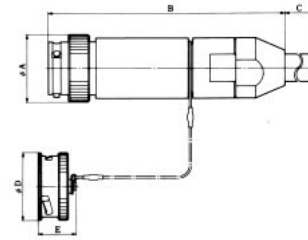
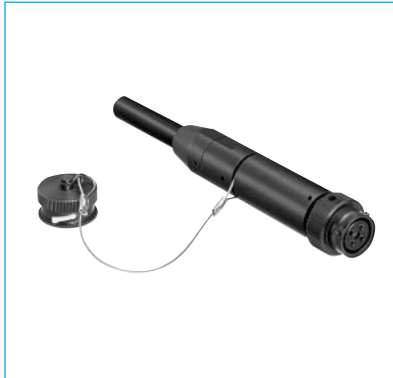
● Plug Housing



Product Number	Number of Fibers	øA	B	C	øD	E
MF14B-WP※S01-0200	2	24	84.7	69	24	21
MF17B-WP※S01-0400	4	27	116.5	69	27	21
MF22B-WP※S01-0600	6	34.5	117.5	69	34.5	21
MF28B-WP※S01-0800	8	42.5	117.5	69	42.5	21

※ indicates the cable diameter. Please specify ø8, 9, or 10mm dia.

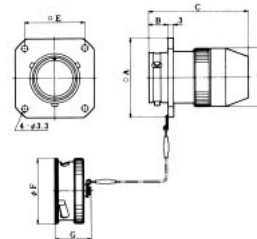
● Jack Housing



Product Number	Number of Fibers	øA	B	C	øD	E
MF14B-WJ※S01-0200	2	24	87	69	24	18.8
MF17B-WJ※S01-0400	4	27	119	69	27	18.7
MF22B-WJ※S01-0600	6	34.5	120.5	69	34.5	19.7
MF28B-WJ※S01-0800	8	42.5	120.5	69	42.5	19.7

※ indicates the cable diameter. Please specify ø8, 9, or 10mm dia.

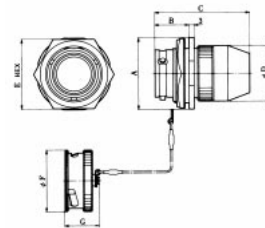
● Square Flange Receptacle Housing



Product Number	Number of Fibers	□A	B	C	øD	□E	øF	G
MF14B-WRF01-0200	2	30	9	45.5	20.5	23	24	18.8
MF17B-WRF01-0400	4	35	9	51.5	25.5	27	27	18.7
MF22B-WRF01-0600	6	42	10.2	53.5	31	32	34.5	19.7
MF28B-WRF01-0800	8	50	10.2	53.5	37	38	42.5	19.7

NOTE: ø2 to 3mm simplex cable is suitable.

● Bulk Head Receptacle Housing

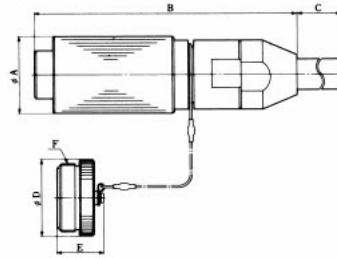


Product Number	Number of Fibers	□A	B	C	øD	□E	øF	G
MF14B-WRB01-0200	2	30	17.5	45.5	20.5	28	24	18.8
MF17B-WRB01-0400	4	34	17.5	51.5	25.5	32	27	18.7
MF22B-WRB01-0600	6	40	19.2	53.5	31	39	34.5	19.7
MF28B-WRB01-0800	8	48	19.2	53.5	37	46	42.5	19.7

NOTE: ø2 to 3mm simplex cable is suitable.

■Screw Fastening Type

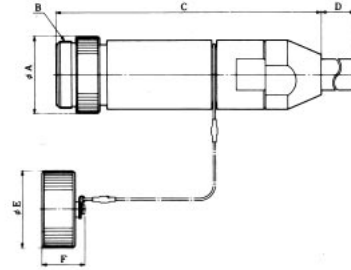
●Plug Housing



Product Number	Number of Fibers	øA	B	C	D	øE	F
MF14S-WP※S01-0200	2	24	84.7	69	24	20.7	M20X1
MF17S-WP※S01-0400	4	27	116.5	69	27	20.7	M22X1
MF22S-WP※S01-0600	6	34.5	117.5	69	34.5	20.7	M30X1
MF28S-WP※S01-0800	8	42.5	117.5	69	42.5	20.7	M38X1.5

※ indicates the cable diameter.

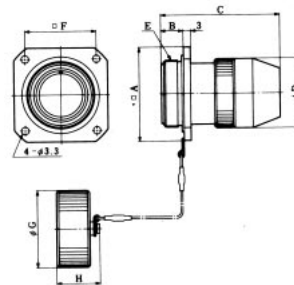
●Jack Housing



Product Number	Number of Fibers	øA	B	C	D	øE	F
MF14S-WJ※S01-0200	2	24	M20X1	85	69	24	18.5
MF17S-WJ※S01-0400	4	27	M22X1	119	69	27	18.5
MF22S-WJ※S01-0600	6	34.5	M30X1	120.5	69	34.5	19.5
MF28S-WJ※S01-0800	8	42.5	M38X1.5	120.5	69	42.5	19.5

※ indicates the cable diameter.

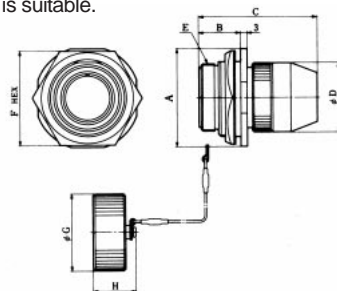
●Square Flange Receptacle Housing



Product Number	Number of Fibers	□A	B	C	øD	E	□F	øG	H
MF14S-WRF01-0200	2	30	10	45.5	20.5	M20X1	23	24	18.5
MF17S-WRF01-0400	4	35	10	51.5	25.5	M22X1	27	27	18.5
MF22S-WRF01-0600	6	42	10	53.5	31	M30X1	32	34.5	19.5
MF28S-WRF01-0800	8	50	10	53.5	37	M38X1.5	38	42.5	19.5

NOTE: ø2 to 3mm simplex cable is suitable.

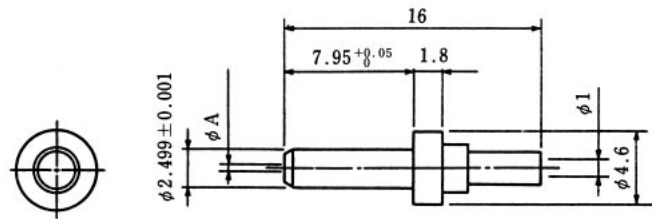
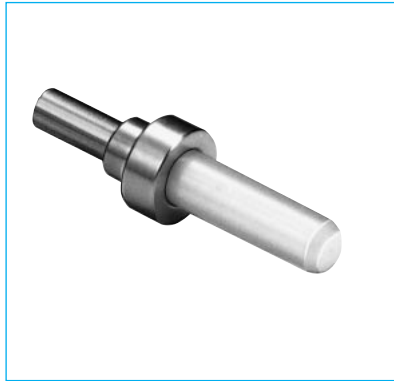
●Bulk Head Receptacle Housing



Product Number	Number of Fibers	□A	B	C	øD	E	□F	øG	H
MF14S-WRB01-0200	2	31	17.5	45.5	20.5	M20X1	32	24	18.5
MF17S-WRB01-0400	4	34	17.5	51.5	25.5	M22X1	32	27	18.5
MF22S-WRB01-0600	6	44	18.9	53.5	31	M30X1	42	34.5	19.5
MF28S-WRB01-0800	8	51	18.9	53.5	37	M38X1.5	49	42.5	19.5

NOTE: ø2 to 3mm simplex cable is suitable.

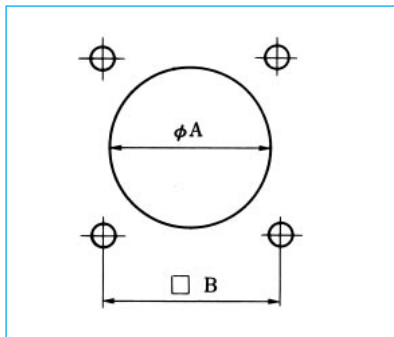
■ Ferrules



HRS No.	Product Number	Dimension A	Suitable Optical Fiber
CL709-0009-0	MF-F3-B124	0.124 ^{+0.001} ₀	GI-50/125
CL709-0010-9	MF-F3-B125	0.125 ^{+0.001} ₀	
CL709-0011-1	MF-F3-B126	0.126 ^{+0.001} ₀	
CL709-0012-4	MF-F3-B127	0.127 ^{+0.001} ₀	
CL709-0013-7	MF-F3-B128	0.128 ^{+0.001} ₀	
CL709-0014-0	MF-F3-E253	0.253 ^{+0.003} ₀	
CL709-0015-2	MF-F3-E233	0.233 ^{+0.003} ₀	

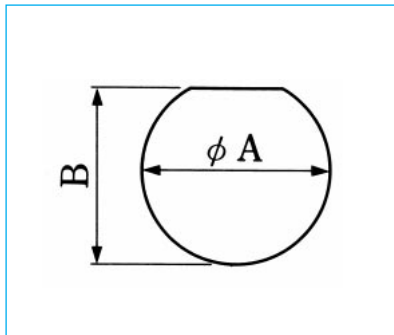
◆ Panel Mounting Hole Dimensions

● Square Flange Receptacle



Product Number	A	B
MF14B-WRF01-0200	21	23
MF14S-WRF01-0200	21	23
MF17B-WRF01-0400	26	27
MF17S-WRF01-0400	26	27
MF22B-WRF01-0600	31.5	32
MF22S-WRF01-0600	31.5	32
MF28B-WRF01-0800	37.5	38
MF28S-WRF01-0800	37.5	38

● Bulk Head Receptacle



Product Number	A	B
MF14B-WRB01-0200	22.2	21.2
MF14S-WRB01-0200	24.2	23.2
MF17B-WRB01-0400	24.2	23.2
MF17S-WRB01-0400	24.2	23.2
MF22B-WRB01-0600	32.2	30.7
MF22S-WRB01-0600	35.2	33.7
MF28B-WRB01-0800	40.2	38.7
MF28S-WRB01-0800	42.2	40.7

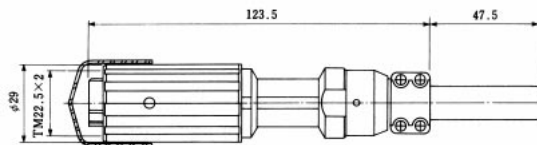
MF17S-type (Die Cast Type) Connectors

MF17S-type (die cast type) connectors were developed as an economical, optical 4-core product chiefly for use in outdoor optical fiber transfer systems. Screws of the lock portion use a trapezoidal screw thread and a 5-key system has been used in the coupling portion, and for this reason these connectors are not compatible with the former MF17S-type connectors.

Materials

Part Name	Material	Processing
Plug housing	Zinc alloy die cast	Zinc plating followed by heavy chromic acid processing
Receptacle housing	Zinc alloy die cast, and brass	Zinc plating followed by heavy chromic acid processing
Ferrule case	Polybutylene terephthalate	
Ferrule	Zirconia	
Coil spring	Stainless steel	
Split sleeve	Copper alloy	
Cap	Polyvinyl chloride	

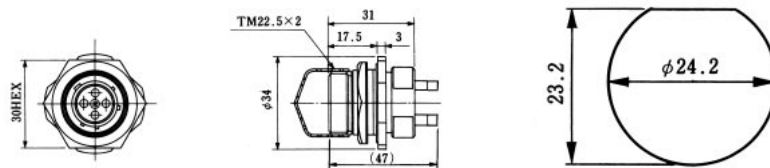
Plug Housing



HRS No.	Product Number	Notes
CL709-0007-4	MF17S-WDP03-0400-H	Suitable cable is $\phi 8, 9,$ or 10mm .

Bulk Head Receptacle Housing

Mounting Hole Dimensions Diagram



HRS No.	Product Number	Notes
CL709-0008-7	MF17S-WDRB01-0400-H	Suitable cable is $\phi 2$ to 3 mm simplex cable.