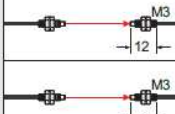
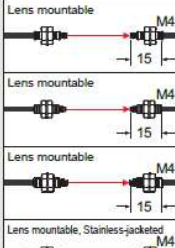
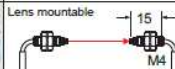
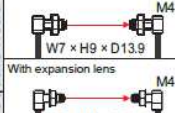


Thru-beam type (one pair set)

•Light intensity is increased, enabling stable sensing.

Type	Shape of fiber head (mm)	Model No.	Bending radius (mm)	Fiber cable length Free-cut	Sensing range (mm in) (Note 1)			Beam axis dia. (mm)	Beam axis position/ inclination of beam axis	Protection	Ambient temp.
					FX-500 series	U-LG LONG FAST H-SP	FX-101 (Upper value) FX-102 (Lower value)				
Threaded		Tough NEW R2 FT-31 Bending durability	Free-cut	STD 315 12.402 HYPR 1,350 53.150	770 30.315 550 21.654 210 8.268 70 2.756	130 5.118 340 13.386	∅0.5	150 μm /±2°	IP67	-55 to +80 °C	
		NEW R1 FT-31W	Free-cut	STD 260 10.236 HYPR 990 38.976	590 23.228 440 17.323 150 5.906 53 2.087	80 3.150 240 9.449	∅0.5	150 μm /±3°		-40 to +60 °C	
		Lens mountable NEW R4 FT-43 Bending durability	2 m	STD 1,400 55.118 HYPR (Note 2) 3,600 141.732	2,800 110.236 2,100 82.677 770 30.315 240 9.449	350 13.780 970 38.189	∅1.5	150 μm /±2°	IP67	-55 to +80 °C	
		Lens mountable Tough NEW R4 FT-42 Bending durability	2 m	STD 1,130 44.488 HYPR (Note 2) 3,600 141.732	2,050 80.709 1,600 62.992 530 20.866 190 7.480	300 11.811 800 31.496	∅1.5	150 μm /±2°		-55 to +80 °C	
		Lens mountable NEW R1 FT-42W	2 m	STD 800 31.496 HYPR 3,300 129.921	1,900 74.803 1,400 55.118 490 19.291 160 6.299	260 10.236 720 28.346	∅1.5	150 μm /±3°		-40 to +60 °C	
		Lens mountable, Stainless-jacketed NEW R4 FT-45X	1 m	STD 1,200 47.244 HYPR (Note 2) 1,600 62.992	1,600 62.992 (Note 2) 1,600 62.992 (Note 2) 630 24.803 200 7.874	340 13.386 920 36.220	∅1	150 μm /±2°		-55 to +80 °C	
		Tough NEW R4 FT-R40 Bending durability	2 m	STD 930 36.614 HYPR (Note 2) 3,600 141.732	1,750 68.898 1,500 59.055 500 19.685 160 6.299	270 10.630 740 29.134	∅1	150 μm /±2°	IP40	-40 to +60 °C	
		Lens mountable NEW R1 FT-R41W	2 m	STD 800 31.496 HYPR 3,200 125.984	1,800 70.866 1,400 55.118 460 18.110 150 5.906	250 9.843 710 27.953	∅2.2	—		-40 to +60 °C	
		With expansion lens NEW R1 FT-R42W	2 m	STD 2,200 86.614 HYPR (Note 2) 3,600 141.732	3,600 141.732 (Note 2) 3,500 137.795 1,300 51.181 460 18.110	510 20.079 2,000 78.740	∅2.2	—	-40 to +60 °C		
		With expansion lens Tough NEW R4 FT-140 Bending durability	10 m	STD (Note 2) 19,600 771.654 HYPR (Note 2) 19,600 771.654	19,600 771.654 (Note 2) 19,600 771.654 (Note 2) 16,000 629.921 6,300 248.031	14,000 551.181 (Note 2) 19,600 771.654 (Note 2)	∅10	—	IP67	-40 to +70 °C	

Notes: 1) Note that the sensing range of the free-cut type fiber may be reduced by 20 % max. depending upon how the fiber is cut.

2) The fiber cable length practically limits the sensing range.

Tough : It is a fiber which possesses both unbreakable (bending radius: R10 mm, reciprocating bending: 180°) and bendable (bending radius: R4 mm or less) features.