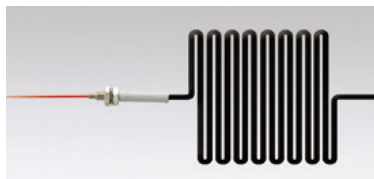


FLEXIBLE R1 mm



Fiber designed to be placed in areas with extremely tight bending requirements.

Worry free mounting

When you need bend resistant type, please use Bend-tolerant fibers on page 22.

Standard fiber cable



The large bending radius requirements of the fiber may break when bent tightly.

Flexible fiber cable



Because the fiber is very flexible it can be easily and neatly mounted in tight bending locations.

Specifications (Thru-beam)

	Sensing head	Sensing distance (unit:mm) Value in parenthesis is the Minimum detectable object size, (copper wire)			Operation temperature (°C ~ °C)	Radius (mm)	Part Number
		D3RF	D2RF	BRF			
Thru-beam	M4 Lens attachable (P,82) Free cut	7-EL 4,000 6-UL 2,000 5-PL 1,600 4-LG 1,400 3-ST 1,000 2-FS 550 1-HS 180	Long 800 Std 400 Fast 200	360	—40~60	R=1	NF-TK77
	M5 Nut Free cut	7-EL 1,530 6-UL 1,440 5-PL 1,260 4-LG 1,000 3-ST 720 2-FS 420 1-HS 140	Long 800 Std 450 Fast 250	300	—40~60	R=1	NF-TR08
	M6 Nut Lens attached Free cut	7-EL 3,600 6-UL 3,600 5-PL 3,600 4-LG 3,150 3-ST 1,980 2-FS 1,000 1-HS 320	Long 2,300 Std 1,300 Fast 550	800	—40~60	R=1	NF-TR09

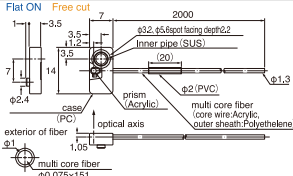
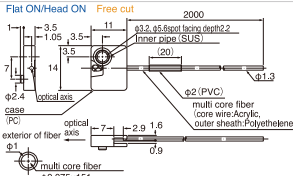
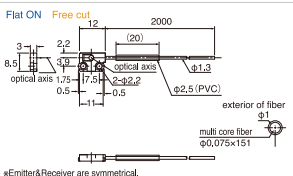
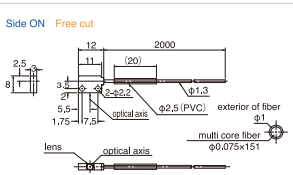
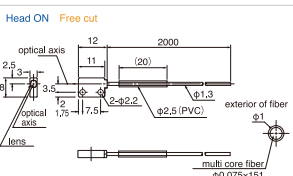
Operating humidity is 35~85%RH. Please use in 0~40°C when it's 85%RH.

Specifications (Thru-beam)

		Sensing head	Sensing distance (unit:mm) Value in parenthesis is the Minimum detectable object size, (copper wire)			Operation temperature (°C ~ °C)	Radius (mm)	Part Number	
			D3RF	D2RF	BRF				
Thru-beam	φ2	φ1 Sleeve:15mm Sideview Free cut	7-EL 160 6-UL 150 5-PL 130 4-LG 110 3-ST 76 2-FS 45 1-HS 11		Long 90 Std 50 Fast 25	20	-40~60	R=1	NF-TG05
	φ3	Lens attached Free cut	7-EL 3,600 6-UL 3,600 5-PL 3,150 4-LG 2,790	3-ST 1,800 2-FS 1,000 1-HS 340	Long 2,300 Std 1,300 Fast 550	550	-40~60	R=1	NF-TR10
	φ4	Sideview Free cut	7-EL 3,500 6-UL 3,500 5-PL 3,500 4-LG 3,500	3-ST 2,000 2-FS 1,000 1-HS 300	Long 1,800 Std 1,000 Fast 500	700	-40~70	R=1	NF-TS22V
	φ5	Narrow Beam Sideview Free cut	7-EL 3,600 6-UL 3,600 5-PL 3,600 4-LG 3,300	3-ST 2,100 2-FS 1,500 1-HS 520	Long 2,500 Std 1,600 Fast 800	1,000	-40~60	R=1	NF-TG02
	Screen			7-EL 3,700 6-UL 3,000 5-PL 3,000 4-LG 3,000 3-ST 2,500 2-FS 2,000 1-HS 1,000		Long 3,000 Std 2,500 Fast 1,200	2,000	-40~55	R=1
			7-EL 3,700 6-UL 3,700 5-PL 3,700 4-LG 3,700 3-ST 3,700 2-FS 3,000 1-HS 2,500		Long 3,700 Std 3,000 Fast 2,500	2,500	-40~55	R=1	NF-TZ07
Square	FlatON	Free cut	7-EL 1,190 6-UL 1,120 5-PL 980 4-LG 850 3-ST 550 2-FS 310 1-HS 100		Long 600 Std 350 Fast 200	220	-40~60	R=1	NF-TE01
	Head ON/Slide ON	Free cut	7-EL 430 6-UL 400 5-PL 350 4-LG 300 3-ST 190 2-FS 120 1-HS 36		Long 250 Std 120 Fast 55	110	-40~60	R=1	NF-TE02

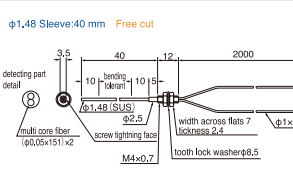
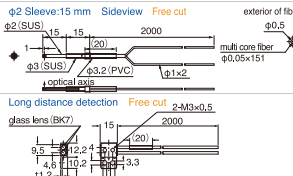
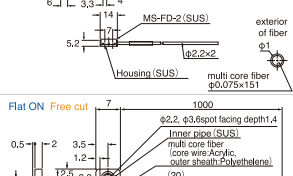
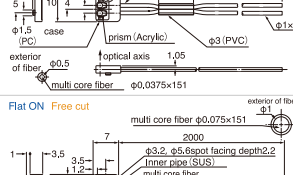
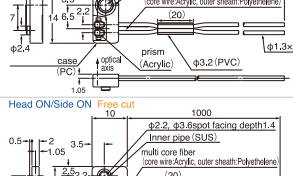
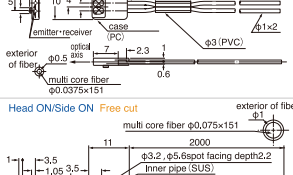
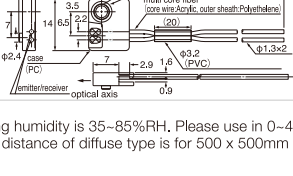
Operating humidity is 35~85%RH. Please use in 0~40°C when it's 85%RH.

Specifications (Thru-beam)

Sensing head	Sensing distance (unit:mm)			Operation temperature (℃~℃)	Radius (mm)	Part Number
	D3RF	D2RF	BRF			
 Flat ON Free cut 2000 7-EL 1,890 6-UL 1,770 5-PL 1,540 4-LG 1,350 3-ST 880 2-FS 520 1-HS 170 Long 900 Std 500 Fast 350 450 -40~60 R=1 NF-TE03						
 Flat ON/Head ON Free cut 2000 7-EL 1,340 6-UL 1,260 5-PL 1,090 4-LG 960 3-ST 630 2-FS 390 1-HS 130 Long 750 Std 450 Fast 250 300 -40~60 R=1 NF-TE04						
 Flat ON Free cut 2000 7-EL 2,450 6-UL 2,300 5-PL 2,010 4-LG 1,710 3-ST 1,150 2-FS 650 1-HS 220 Long 1,200 Std 650 Fast 330 500 -40~60 R=1 NF-TR13						
 Side ON Free cut 2000 7-EL 3,600 6-UL 3,600 5-PL 3,600 4-LG 3,150 3-ST 2,000 2-FS 1,200 1-HS 540 Long 2,700 Std 1,500 Fast 1,000 1,300 -40~60 R=1 NF-TR12						
 Head ON Free cut 2000 7-EL 3,600 6-UL 3,600 5-PL 3,580 4-LG 3,060 3-ST 1,980 2-FS 1,350 1-HS 530 Long 2,700 Std 1,600 Fast 850 1600 -40~60 R=1 NF-TR11						

Operating humidity is 35~85%RH. Please use in 0~40℃ when it's 85%RH.

Specifications (Diffuse)

Sensing head	Sensing distance (unit:mm)			Operation temperature (℃~℃)	Radius (mm)	Part Number
	D3RF	D2RF	BRF			
 M4 1.48 Sleeve:40 mm Free cut 2000 7-EL 140 6-UL 135 5-PL 110 4-LG 95 3-ST 65 2-FS 30 1-HS 10 Long 60 Std 35 Fast 17 30 -40~60 R=1 Fiber R=10 Sleeve R=10 NF-DR10						
 3 2 Sleeve:15 mm Sideview Free cut 2000 7-EL 53 6-UL 50 5-PL 43 4-LG 36 3-ST 20 2-FS 12 1-HS 4 Long 25 Std 12 Fast 5 10 -40~60 R=1 NF-DR12						
 Long distance detection Free cut 2000 7-EL 1,070 6-UL 990 5-PL 880 4-LG 770 3-ST 500 2-FS 310 1-HS 90 Long 600 Std 380 Fast 200 250 -40~60 R=1 NF-DR09						
 Flat ON Free cut 1000 7-EL 140 6-UL 135 5-PL 110 4-LG 99 3-ST 70 2-FS 34 1-HS 10 Long 60 Std 30 Fast 10~16 30 -40~60 R=1 NF-DE01						
 Flat ON Free cut 2000 7-EL 490 6-UL 450 5-PL 400 4-LG 350 3-ST 225 2-FS 117 1-HS 41 Long 250 Std 100 Fast 60 100 -40~60 R=1 NF-DE03						
 Head ON/Side ON Free cut 1000 7-EL 160 6-UL 150 5-PL 130 4-LG 117 3-ST 77 2-FS 43 1-HS 12 Long 65 Std 35 Fast 20 30 -40~60 R=1 NF-DE02						
 Head ON/Side ON Free cut 2000 7-EL 480 6-UL 450 5-PL 390 4-LG 340 3-ST 225 2-FS 117 1-HS 45 Long 250 Std 120 Fast 80 100 -40~60 R=1 NF-DE04						

Operating humidity is 35~85%RH. Please use in 0~40℃ when it's 85%RH.
Sensing distance of diffuse type is for 500 x 500mm white paper.