

02 Thread type

Related products

Fiber amplifier

D3RF
P.110



Fiber amplifier

BRF
P.130



Type that can be mounted with a threaded nut Fiber units

- Adjustable mounting type that switches between straight view and side view also available
- A metal sheath type that protects against cable breakage, as well as lens attachable models are available.

New concept Straight view/side view switchable type Switchable direction

The NF-TR14 can be used as a side view type by bending the fiber cable to fit the slit in the side of the nut. This fiber unit is a completely new concept that allows switching between side view and straight view according to mounting conditions.



Metal sheath type Breakage prevention

Stainless steel mesh structure sheath protects the fiber cable and prevents fiber cable breakage due to snagging. The bending radius R10 mm allows the cable to bend in tight areas without breaking.



Through-beam type: NF-TJ01 Diffuse type: NF-DJ01, NF-DJ02

Thread type fiber units (through-beam type)

Photoelectric Sensors

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Specialized Photoelectric Sensors

Laser Displacement Sensors

Fiber Units

Easy mounting

Thread type

Cylindrical type

Sleeve type

Flexible R4/R2

Flexible R1/R2

Retro-reflective

Small object detection

Screen/Array

Limited diffuse

Narrow view/wafer mapping

Heat resistant

Chemical resistant

Vacuum resistant

Liquid level/liquid leakage/water detection

Lens for through-beam type

Correct use

Type	Features/dimensions (mm)	Sensing distance (mm)			Ambient temperature	Bending radius (mm)	Model	
		D3RF	D2RF	BRF				
M3	<p>Free cut</p>	<p>7-EL 3,500</p> <p>6-UL 2,100</p> <p>5-PL 1,600</p> <p>4-LG 1,400</p>	<p>3-ST 1,000</p> <p>2-FS 550</p> <p>1-HS 175</p>	<p>Long 1,000</p> <p>Std 500</p> <p>Fast 250</p>	450	-40 to +70°C	R25	NF-TM01
	<p>Free cut</p>	<p>7-EL 900</p> <p>6-UL 550</p> <p>5-PL 400</p> <p>4-LG 350</p>	<p>3-ST 250</p> <p>2-FS 140</p> <p>1-HS 45</p>	<p>Long 350</p> <p>Std 200</p> <p>Fast 90</p>	120	-40 to +70°C	R15	NF-TM02
M4	<p>Lens attachable (P.98), Free cut</p>	<p>7-EL 4,000</p> <p>6-UL 3,000</p> <p>5-PL 2,200</p> <p>4-LG 1,900</p>	<p>3-ST 1,400</p> <p>2-FS 750</p> <p>1-HS 250</p>	<p>Long 1,800</p> <p>Std 800</p> <p>Fast 450</p>	700	-40 to +70°C	R30	NF-TB01 Low cost
	<p>Lens attachable (P.98), Free cut</p>	<p>7-EL 4,000</p> <p>6-UL 2,000</p> <p>5-PL 1,600</p> <p>4-LG 1,400</p>	<p>3-ST 1,000</p> <p>2-FS 550</p> <p>1-HS 175</p>	<p>Long 1,000</p> <p>Std 500</p> <p>Fast 250</p>	450	-40 to +70°C	R25	NF-TB02
	<p>Metal sheath, Lens attachable (P.98)</p>	<p>7-EL 1,590</p> <p>6-UL 1,440</p> <p>5-PL 1,260</p> <p>4-LG 1,140</p> <p>3-ST 740</p> <p>2-FS 410</p> <p>1-HS 130</p>	<p>Long 350</p> <p>Std 220</p> <p>Fast 110</p>	300	-40 to +60°C	R10	NF-TJ01 Breakage prevention	
	<p>Nut type, Straight view/side view switchable type, Flexible, Free cut</p>	<p>7-EL 3,800</p> <p>6-UL 2,700</p> <p>5-PL 2,200</p> <p>4-LG 1,800</p>	<p>3-ST 1,200</p> <p>2-FS 800</p> <p>1-HS 300</p>	<p>Long 1,300</p> <p>Std 600</p> <p>Fast 300</p>	400	-40 to +60°C	R2	NF-TR14 Switchable direction
M12	<p>Nut type, Free cut</p>	<p>7-EL 2,500</p> <p>6-UL 1,400</p> <p>5-PL 1,300</p> <p>4-LG 1,000</p>	<p>3-ST 750</p> <p>2-FS 350</p> <p>1-HS 100</p>	<p>Long 800</p> <p>Std 600</p> <p>Fast 200</p>	350	-40 to +70°C	R25	NF25-T Space-saving
	<p>Elbow type, Lens attachable (P.98), Free cut</p>	<p>7-EL 1,440</p> <p>6-UL 1,350</p> <p>5-PL 1,170</p> <p>4-LG 1,060</p> <p>3-ST 690</p> <p>2-FS 430</p> <p>1-HS 130</p>	<p>Long 750</p> <p>Std 450</p> <p>Fast 200</p>	350	-40 to +70°C	R25	NF-TB06	
	<p>Super long distance with large lens, Fiber length 20 m, Free cut</p>	<p>7-EL 38,000</p> <p>6-UL 25,000</p> <p>5-PL 20,000</p> <p>4-LG 18,000</p>	<p>3-ST 12,000</p> <p>2-FS 7,000</p> <p>1-HS 1,800</p>	<p>Long 12,000</p> <p>Std 6,500</p> <p>Fast 3,500</p>	2,800	-40 to +70°C	R30	NF-TX01

●Install with an ambient humidity between 35 and 85%. In the case of 85% RH, the ambient temperature should be between 0 and 40°C.

Thread type fiber units (through-beam type/diffuse type)

Type	Features/dimensions (mm)	Sensing distance (mm)			Ambient temperature	Bending radius (mm)	Model
		D3RF	D2RF	BRF			
Diffuse type	Free cut 	7-EL: 300 6-UL: 160 5-PL: 150 4-LG: 120	3-ST: 80 2-FS: 100 1-HS: 50 Fast: 25	35	-40 to +70°C	R15	FD-TT2 Low cost
	Standard, Free cut 	7-EL: 400 6-UL: 200 5-PL: 190 4-LG: 160	3-ST: 100 2-FS: 100 1-HS: 60 Fast: 30	45	-40 to +70°C	R15	NF-DS06
	Coaxial, Lens attachable (P64), Free cut 	7-EL: 500 6-UL: 300 5-PL: 250 4-LG: 225	3-ST: 150 2-FS: 250 1-HS: 120 Fast: 50	70	-40 to +70°C	R15	NF-DT01
	Coaxial, Free cut 	7-EL: 310 6-UL: 290 5-PL: 260 4-LG: 220 3-ST: 140 2-FS: 70 1-HS: 20	Long: 170 Std: 80 Fast: 45	55	-40 to +60°C	R25	NF-DB07
	Coaxial, Lens attachable (P64) 	7-EL: 180 6-UL: 110 5-PL: 100 4-LG: 85	3-ST: 60 2-FS: 40 1-HS: 12	20	-40 to +70°C	R15	NF-DK21
	Coaxial, Metal sheath 	7-EL: 180 6-UL: 170 5-PL: 150 4-LG: 130 3-ST: 80 2-FS: 40 1-HS: 10	Long: 120 Std: 50 Fast: 30	50	-40 to +60°C	R10	NF-DJ01 Breakage prevention
M4	Standard, Free cut 	7-EL: 1,100 6-UL: 650 5-PL: 550 4-LG: 450	3-ST: 350 2-FS: 200 1-HS: 60 Fast: 100	160	-40 to +70°C	R25	NF-DM01
	Coaxial, Lens attachable (P64), Free cut 	7-EL: 500 6-UL: 300 5-PL: 250 4-LG: 225	3-ST: 150 2-FS: 100 1-HS: 30 Fast: 50	70	-40 to +70°C	R15	NF-DM02

- The sensing distances for the diffuse type fiber units are values on 500 x 500 mm white paper.
- Install with an ambient humidity between 35 and 85%. In the case of 85% RH, the ambient temperature should be between 0 and 40°C.

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Type	Features/dimensions (mm)	Sensing distance (mm)			Ambient temperature	Bending radius (mm)	Model
		D3RF	D2RF	BRF			
M4	Coaxial, Lens attachable (P64), Free cut 	7-EL 680 6-UL 150 5-PL 370 4-LG 270 3-ST 150 2-FS 90 1-HS 70 Fast 20 Std 30	Long 140 Std 70 Fast 30	70	-40 to +70°C	R15	NF-DM02-G4
	Standard, Free cut 	7-EL 1,200 6-UL 400 5-PL 750 4-LG 250 3-ST 400 2-FS 250 1-HS 80 Fast 100	Long 400 Std 250 Fast 100	160	-40 to +70°C	R25	NF-DK06
	Coaxial, Free cut 	7-EL 1,200 6-UL 400 5-PL 750 4-LG 250 3-ST 400 2-FS 250 1-HS 75 Fast 100	Long 450 Std 250 Fast 100	150	-40 to +70°C	R25	NF-DB01 Low cost
	Coaxial, Free cut 	7-EL 1,200 6-UL 400 5-PL 750 4-LG 250 3-ST 400 2-FS 250 1-HS 75 Fast 100	Long 450 Std 250 Fast 100	150	-40 to +70°C	R25	NF-DB03
	Coaxial, Free cut 	7-EL 1,200 6-UL 300 5-PL 650 4-LG 150 3-ST 300 2-FS 150 1-HS 50 Fast 100	Long 450 Std 250 Fast 100	80	-40 to +70°C	R25	NF-DB04
	Nut type, Free cut 	7-EL 550 6-UL 330 5-PL 240 4-LG 200 3-ST 150 2-FS 90 1-HS 23	Long 120 Std 80 Fast 25	45	-40 to +70°C	R25	NF25-D Space-saving
	Elbow type, Free cut 	7-EL 540 6-UL 510 5-PL 450 4-LG 390 3-ST 250 2-FS 140 1-HS 40	Long 300 Std 150 Fast 60	100	-40 to +70°C	R25	NF-DB09
	Metal sheath 	7-EL 440 6-UL 410 5-PL 360 4-LG 310 3-ST 200 2-FS 100 1-HS 30	Long 280 Std 150 Fast 70	100	-40 to +70°C	R10	NF-DJ02 Breakage prevention

- The sensing distances for the diffuse type fiber units are values on 500 × 500 mm white paper (1000 × 1000 mm white paper for NF25-D).
- Install use with an ambient humidity between 35 and 85%. In the case of 85% RH, the ambient temperature should be between 0 and 40°C.

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