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Heat resistant (130°C or below)

Related products

Fiber units
Heat resistant (180 to 200°C)
● P.80



Fiber units
Heat resistant (250 to 350°C)
● P.85



Fiber units for ambient temperatures of 130°C or below

This heat resistant series offers most models in the industry at 30 models (according to in-house survey)



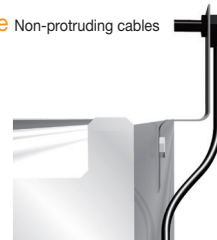
Non-protruding cables Space-saving

Because the cables of NF25-DH and NF25-TH heat resistant nut type fiber units do not protrude even when mounted to the conveyer side, no extra space is needed. Also, they eliminate worries regarding cable breakage caused by snagging on tools during work.

Straight type Extra space needed



Nut type Non-protruding cables



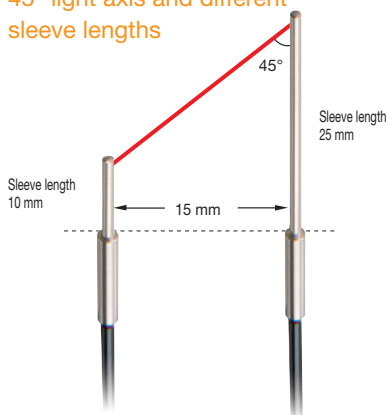
Low cost nut type → P.35
Flexible R2 mm nut type → P.58

Fiber units with 45° angle light axis and different sleeve lengths

An angled light axis is needed when mounting workpieces for detecting transparent glass substrates with through-beam type fibers. The light axis of the NF-TH06 is angled at 45° and the sleeve lengths for the emitting and receiving fibers differ, making it possible to simplify the mounting jig and installation.

NF-TH06

45° light axis and different sleeve lengths



Angle detection using conventional fiber units

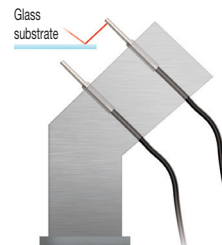
Vertical mounting

The light passes through the glass and detection is unstable when installed vertically to a glass substrate.

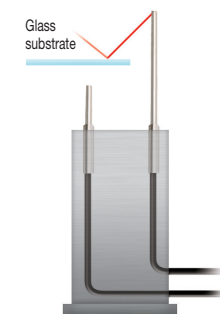


Angled mounting

Although the detection is stable, mounting bracket with a complex shape is needed when mounting at an angle.



NF-TH06 provides stable detection and simple mounting



Heat resistant <130°C or below> fiber units (through-beam type)

Photoelectric Sensors

Photoelectric Sensors

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

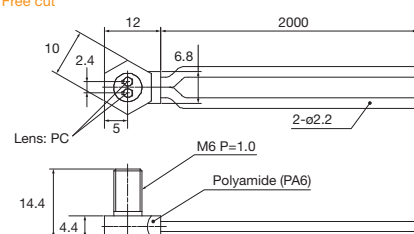
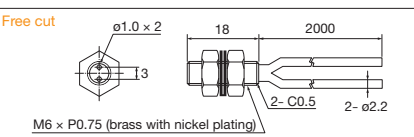
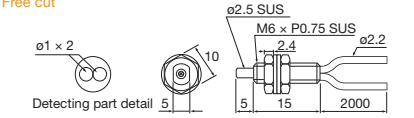
Lens for through-beam type

Correct use

Type	Features/dimensions (mm)	Sensing distance (mm)			Ambient temperature	Min. bending radius (mm)	Model
		D3RF	D2RF	BRF			
Through-beam type	<p>Nut type, Free cut</p>	7-EL 2,000 6-UL 1,100 5-PL 1,000 4-LG 900 3-ST 600 2-FS 300 1-HS 90	Long 750 Std 500 Fast 170	300	-40 to +105°C	R25	NF25-TH Space-saving
	<p>Side view, Free cut</p>	7-EL 3,500 6-UL 2,300 5-PL 2,000 4-LG 1,800	3-ST 1,200 2-FS 1,300 1-HS 700 Fast 400	500	-40 to +105°C	R10	NF-TS22M
	<p>ø1 sleeve: 25 mm long and 10 mm long, 45° angle light axis, Heat resistant, Free cut</p>	7-EL 100 6-UL 55 5-PL 50 4-LG 40 3-ST 30 2-FS 10 1-HS 4	Long 28 Std 20 Fast 15	16	-40 to +105°C	R10	NF-TH06
100°C	<p>Lens attachable (P.98), Free cut</p>	7-EL 2,400 6-UL 1,400 5-PL 1,000 4-LG 900	3-ST 700 2-FS 300 1-HS 100	Long 700 Std 400 Fast 200	300	-40 to +100°C (Note)	R25 NF-TH01 Low cost

● 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.
 Note: Light intensity retention rate of 90% or above after 2000 continuous work hours.

Heat resistant <130°C or below> fiber units (diffuse type)

Type	Features/dimensions (mm)	Sensing distance (mm)			Ambient temperature	Min. bending radius (mm)	Model	
		D3RF	D2RF	BRF				
Diffuse type	<p>105°C</p> 	<p>7-EL 650 6-UL 350 5-PL 280 4-LG 240 3-ST 175 2-FS 100 1-HS 25</p>	<p>Long 120 Std 80 Fast 25</p>	<p>15</p>	-40 to +105°C	R25	<p>NF25-DH Space-saving</p>	
	<p>Free cut</p> 	<p>7-EL 950 5-PL 500 450 4-LG 400</p>	<p>3-ST 250 2-FS 130 1-HS 40</p>	<p>Long 300 Std 180 Fast 80</p>	<p>160</p>	-40 to +105°C	R25	<p>FD-3SD1(100) Standard item</p>
	<p>Free cut</p> 	<p>7-EL 850 6-UL 550 5-PL 450 4-LG 375</p>	<p>3-ST 275 2-FS 170 1-HS 55</p>	<p>Long 250 Std 150 Fast 50</p>	<p>110</p>	-40 to +100°C (Note)	R25	<p>NF-DH02 Low cost</p>

- The sensing distances for the diffuse type fiber units are values on 500 × 500 mm white paper (1000 × 1000 mm white paper for NF25-DH).
 - 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.
- Note: Light intensity retention rate of 85% or above after 1000 continuous work hours.

Heat resistant reflector

Possible to detect as retro-reflective type if the SW50 heat resistant reflector is used for the heat resistant diffuse type fiber. Demonstrates its strength in transparent object detection under high temperatures.

Reflector heat resistant to 300°C



SW50
ø80 × 20 mm (ø50 mm reflective surface)

Glass bottle detection under high temperatures

