

Threaded  
Cylindrical

Flat

Sleeved

Small Spot

High Power

Narrow view

BGS

Retro-reflective

Limited-reflective

Chemical-resistant, Oil-resistant

Bending

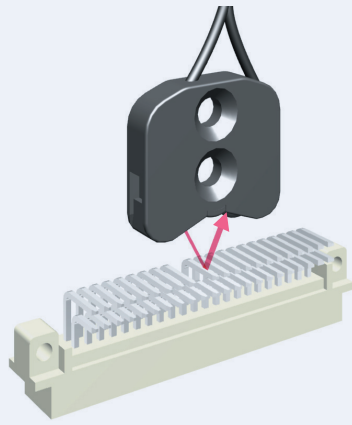
Heat-resistant

Area Detection

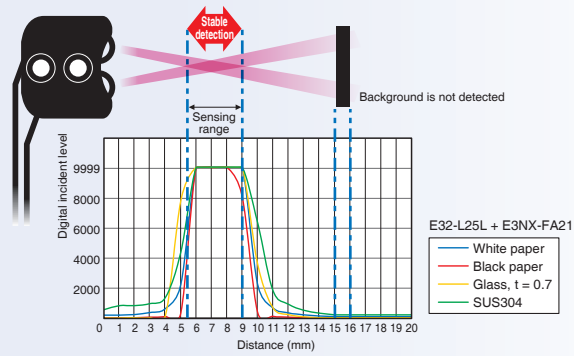
Liquid-level

Vacuum

FPD, Semi, Solar



- These Fiber Units detect only objects in the sensing range. Objects in the background that are located beyond a certain point are not detected. They are not easily affected by the material or color of the sensing object.



Specifications

Limited-reflective Fiber Units

Sensing direction	Appearance (mm)	Bending radius of cable	Sensing distance (mm)				Standard sensing object (minimum sensing object)	Models	33 Page Dimensions No.
			E3X-HD		E3NX-FA <i>NEW</i>				
			GIGA HS	Other modes	GIGA HS	Other modes			
Flat-view		R25	0 to 15	ST : 0 to 15	0 to 15	ST : 0 to 15	Soda glass with reflection factor of 7%	E32-L16-N 2M	33-A
			0 to 15	SHS: 0 to 12	0 to 15	SHS: 0 to 12			
Side-view		R10	0 to 4	ST : 0 to 4	0 to 4	ST : 0 to 4	(5 μm dia./ 2 μm dia.)	E32-L24S 2M	33-B
			0 to 4	SHS: 0 to 4	0 to 4	SHS: 0 to 4			
			5.4 to 9	ST : 5.4 to 9	5.4 to 9	ST : 5.4 to 9		E32-L25L 2M	33-C

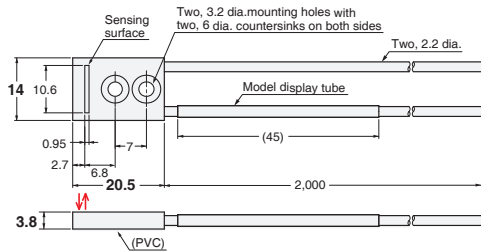
- Note 1.** If operation is affected by the background, perform power tuning or use the ECO Mode to decrease the incident light level.
- 2.** The following mode names and response times apply to the modes given in the Sensing distance column.  
 [E3X-HD] GIGA: Giga-power mode (16 ms), HS: High-speed mode (250 μs), ST: Standard mode (1 ms), and SHS: Super-high-speed mode (NPN output: 50 μs, PNP output: 55 μs)  
 [E3NX-FA] GIGA: Giga-power mode (16 ms), HS: High-speed mode (250 μs), ST: Standard mode (1 ms), and SHS: Super-high-speed mode (30 μs)
- 3.** The values for the minimum sensing object are reference values that indicate values obtained in standard mode with the sensing distance and sensitivity set to the optimum values. The first value is for the E3X-HD and the second value is for the E3NX-FA.
- 4.** The sensing distances for Reflective Fiber Units are for white paper.
- 5.** The sensing distances for the E3NX-FA are values for E3NX-FA□ devices. The distance for E3NX-FAH□ infrared models varies.

Dimensions

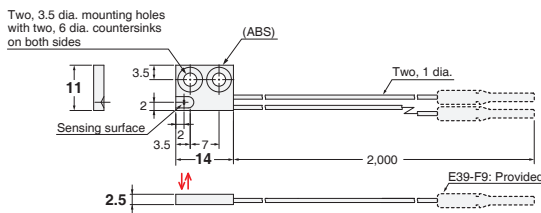
Installation Information → 59 Page

Limited-reflective Fiber Units

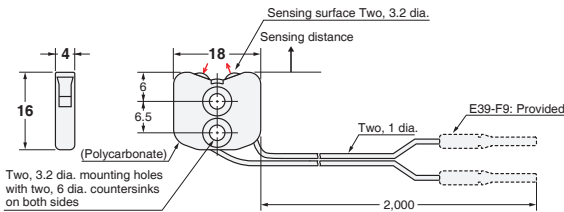
33-A E32-L16-N 2M (Free Cutting)



33-B E32-L24S 2M (Free Cutting)



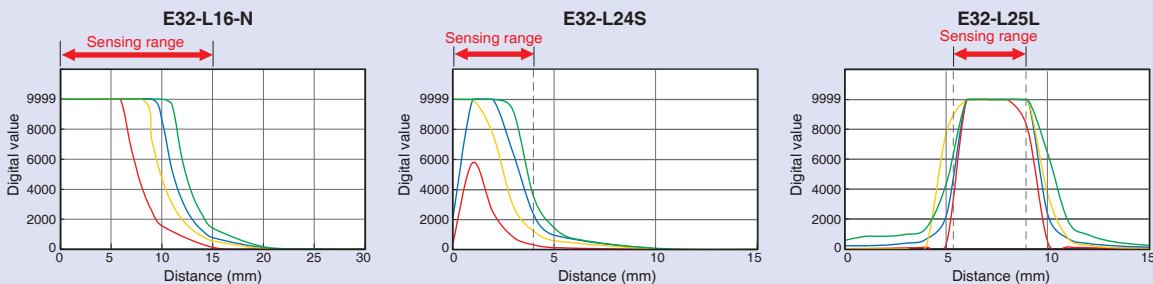
33-C E32-L25L 2M (Free Cutting)



- Reference Information for Model Selection -

Sensing Distance vs. Digital Value

The following graphs show how the digital value is high within the sensing range and small outside. This explains why false detection does not occur outside the sensing range, even against common metal backgrounds, such as stainless steel.



\* E3NX-FA21 used in high-speed (HS) mode

Fiber Sensor Features

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Fiber Amplifiers, Communications Unit, and Accessories

Technical Guide and Precautions

Model Index