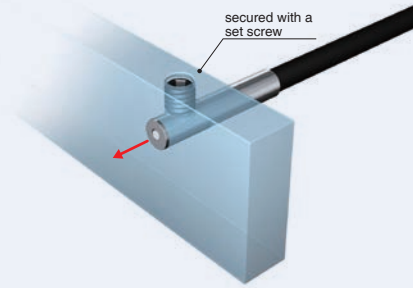


- Inserted where space is limited.  
(Secured using a set screw.)



Specifications

Reflective Fiber Units

Size	Sensing direction	Appearance (mm)	Bending radius of cable	Sensing distance (mm)						Optical axis diameter (minimum sensing object)	Models	13 Page Dimensions No.
				E3X-HD			E3NX-FA <i>NEW</i>					
				GIGA	HS	Other modes	GIGA	HS	Other modes			
1.5 dia.	Top-view		Bend-resistant, R4	140	ST : 60	210	ST : 90	(5 μm dia./ 2 μm dia.)	E32-D22B 2M	13-A		
		40	SHS: 16	60	SHS: 16							
1.5 dia. + 0.5 dia.	Top-view		R4	28	ST : 12	42	ST : 18		E32-D43M 1M	13-B		
		8	SHS: 4	12	SHS: 4							
3 dia.	Top-view		Flexible, R1	140	ST : 60	210	ST : 90		E32-D22R 2M	13-C		
		40	SHS: 16	60	SHS: 16							
			Bend-resistant, R4	300	ST : 140	450	ST : 210	E32-D221B 2M			13-D	
		90	SHS: 40	130	SHS: 40							
	Coaxial	700	ST : 300	1,050	ST : 450	E32-D32L 2M	13-E					
200	SHS: 90	300	SHS: 90									
3 dia. + 0.8 dia.	Top-view		R25	70	ST : 30	100	ST : 45	E32-D33 2M	13-F			
		20	SHS: 8	30	SHS: 8							

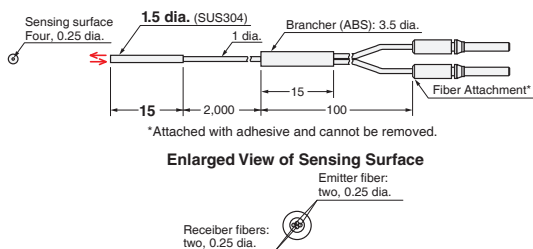
**Note 1.** The following mode names and response times apply to the modes given in the Sensing distance column.  
 [E3X-HD] GIGA: Giga-power mode (16 ms), HS: High-speed mode (250 μs), ST: Standard mode (1 ms), and SHS: Super-high-speed mode (NPN output: 50 μs, PNP output: 55 μs)  
 [E3NX-FA] GIGA: Giga-power mode (16 ms), HS: High-speed mode (250 μs), ST: Standard mode (1 ms), and SHS: Super-high-speed mode (30 μs)  
 2. 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.  
 3. The sensing distances for Reflective Fiber Units are for white paper.  
 4. The sensing distances for E3NX-FA are values for E3NX-FA□ models. The distances for E3NX-FAH□ infrared models are different.

## Dimensions

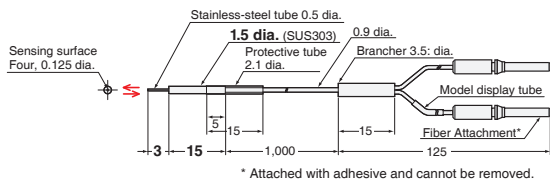
Installation Information → 58, 59 Page

### Reflective Fiber Units

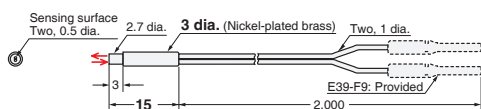
**13-A E32-D22B 2M (No Cutting)**



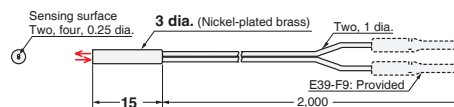
**13-B E32-D43M 1M (No Cutting)**



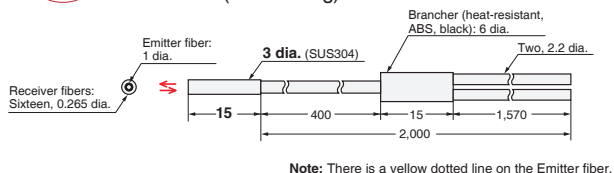
**13-C E32-D22R 2M (Free Cutting)**



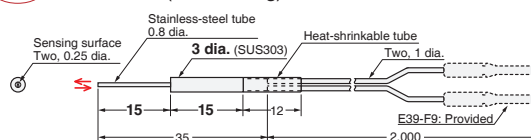
**13-D E32-D221B 2M (Free Cutting)**



**13-E E32-D32L 2M (Free Cutting)**



**13-F E32-D33 2M (Free Cutting)**



### - Reference Information for Model Selection -

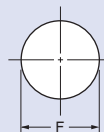
#### Features of Coaxial Reflective Type

These Fiber Units offer better detection of small objects at close distances (of 2 mm or less) than Standard Reflective Fiber Units. They also detect glossy surfaces more reliably than Standard Reflective Fiber Units, even if the surface is tilted. The receiver fibers are arranged around the emitter fiber as shown below.



#### Recommended Mounting Hole Dimensions

The recommended mounting-hole dimensions for Cylindrical Fiber Units are given below.



(Unit: mm)

Outer diameter of Fiber Unit	1.5 dia.	3 dia.
Dimension F	1.7 <sup>+0.5</sup> <sub>0</sub> dia.	3.2 <sup>+0.5</sup> <sub>0</sub> dia.

Fiber Sensor Features

Selection Guide

Fiber Units

Threaded

Cylindrical

Standard Installation

Flat

Sleeved

Saving Space

Small Spot

High Power

Beam Improvements

Narrow view

BGS

Retro-reflective

Limited-reflective

Transparent Objects

Chemical-resistant, Oil-resistant

Bending

Environmental Immunity

Heat-resistant

Area Detection

Liquid-level

Applications

Vacuum

FPD, Semi, Solar

Installation Information

Fiber Amplifiers, Communications Unit, and Accessories

Technical Guide and Precautions

Model Index