

Fiber-Optic Sensing Heads

Standard Models

These fiber units can be used in a variety of applications, such as detecting the presence of workpieces and positioning.

Sensor Type

Through-Beam, Diffused Reflective

Sensing Distances

Standard Mode; Shortest Distance 0-8 mm, Longest Distance 0-1000 mm

IP Rating

IP67, IP50, IP40

Minimum Bending Radius

1 mm, 4 mm, 10 mm, 25 mm

Material

Head: Nickel-Plated Brass (NPB), Stainless Steel (SUS)

Fiber: PMMA (polymethylmethacrylate)

Sheath: Polyethylene Coating, PVC Coating

Standard Models - Cylindrical



Popular Part Numbers

• E32-TC200 • E32-TC200E • E32-T11N • E32-DC200
• E32-D11N • E32-DC200E • E32-CC200

Standard Models - Square



Popular Part Numbers

• E32-T15X • E32-T15Y • E32-D15X
• E32-D15Y • E32-D15Z

Special Beam Models

A variety of fiber units incorporating the latest optical technology makes it possible to solve common problems related to detection in dusty and dirty areas, detecting small workpieces and in high vibration applications.

Sensor Type

Through-Beam, Diffused Reflective, Retro-reflective, Convergent Reflective

Sensing Distances

Standard Mode; Shortest Distance 0-3 mm, Longest Distance 0-20,000 mm

IP Rating

IP67, IP50, IP54, IP40

Minimum Bending Radius

1 mm, 4 mm, 10 mm, 25 mm

Material

Head: Nickel-Plated Brass, Stainless Steel, Fluororesin, Aluminum

Fiber: PMMA (polymethylmethacrylate), Glass

Sheath: Polyethylene Coating, PVC Coating

Special Beam - Long Distance



Popular Part Numbers

• E32-T16J • E32-T17L • E32-D16

Special Beam - Miniature



Popular Part Numbers

• E32-TC-200B • E32-TC200F • E32-DC200B
• E32-DC200F • E32-D21L • E32-D33

Environment-Resistant Models

These fiber units for adapting to a variety of environmental conditions. These fiber units enable detection in high-temperature, splattering chemicals and vacuums.

Sensor Type

Through-Beam, Diffused Reflective

Sensing Distances

Standard Mode; Shortest Distance 0-40 mm, Longest Distance 0-3400 mm

IP Rating

IP67

Minimum Bending Radius

4 mm, 10 mm, 25 mm, 30 mm, 35 mm, 40 mm

Material

Head: Nickel-Plated Brass, Stainless Steel, Fluororesin, Aluminum

Fiber: PMMA (polymethylmethacrylate), Glass, Fluororesin

Sheath: Fluororesin Coating, Fluororesin, Stainless Steel, Polyethylene Coating

Heat Resistant



Popular Part Numbers

• E32-T51 • E32-T61-S • E32-T81F-S • E32-T84S-S
• E32-D61-S • E32-D73-S

Vacuum Resistant



Popular Part Numbers

• E32-VF4 (thru-wall fitting) • E32-T15V
• E32-T54V • E32-T84SV (in-chamber)
• E32-T10V 2M (external)

Application Specific Models

Fiber units developed for specific applications like:

- Label detection; Liquid-level detection
- Alignment and mapping glass substrates
- Wafer mapping; True color detection
- Distance measurement

Sensor Type

Through-Beam, Diffused Reflective

Sensing Distances

Standard Mode; Shortest Distance 1-5 mm, Longest Distance 0-3400 mm

IP Rating

IP67, IP50, IP40

Minimum Bending Radius

1 mm, 4 mm, 10 mm, 25 mm, 35 mm, 40 mm

Material

Head: Nickel-Plated Brass, Stainless Steel, Fluororesin, Aluminum, ABS

Fiber: PMMA (polymethylmethacrylate), Glass

Sheath: Polyethylene Coating, PVC Coating, Stainless Steel

Area Monitoring



Popular Part Numbers

• E32-M21 • E32-T16PR • E32-T16JR • E32-T16WR
• E32-T16W • E32-ET16WR-1 • E32-D36P1

Special Application



Popular Part Numbers

• E32-T11F • E32-D16 • E32-G14
• E32-D82F1 • E32-T14

Fiber-Optic Sensor Amplifiers



Quick Link
B342

E3X-HD

Easy-Teach Digital Amplifier

The E3X-HD is the new go-to fiber amplifier for standard applications. It offers stable detection and intuitive operation.

- Simple one-button smart tuning for sensor threshold and light intensity
- Confirm settings and status easily with dual digital display
- Automatic compensation for large objects and low reflectance dark targets
- Smart power control function compensates for grime build-up and LED deterioration
- EtherCAT and CompoNet high-speed network communication interfaces available



Quick Link
B345

E3NX-FA

High Performance Digital Fiber Amplifier

The E3NX-FA is the go-to for advanced fiber-optic applications. It provides the same intuitive operation as the E3X-HD, but with improved detection and more output/input options.

- Provides the longest sensing distance and smallest minimum sensing object size
- Offers options with 1 or 2 outputs and an external input
- Same simple one-button teach and dual digital display as the E3X-HD, but with an even brighter LED display
- Automatic compensation for large objects and low reflectance dark targets
- Smart power control function compensates for grime build-up and LED deterioration
- High-speed network communication interfaces available



Quick Link
B328

E3X-NA, E3X-NA-F

Bar Graph Display Amplifier

The E3X-NA is a basic fiber amplifier, providing quick & easy potentiometer adjustment and bar graph display.

- Easy adjustment with potentiometer
- Mutual interference prevention
- Enhanced water resistance types
- E3X-NA-F: 20 μ s turn on time



Quick Link
B326

E3X-MDA

2-in-1 Digital Fiber Amplifier

E3X-MDA incorporates 2 digital fiber amplifiers in one slimline housing. For applications requiring the detection of two objects simultaneously the E3X-MDA provides an easy to use operation saving space and set-up time.

- Two digital amplifiers in one slimline housing
- Twin output models - on/off or area (between two threshold values)
- Signal comparison functions (AND, OR, etc.)



Quick Link
B325

E3X-DAC-S

Color (RGB) Digital Fiber Amplifier

The E3X-DAC-S detects the color and returned light intensity of a mark or object and compares it with a stored RGB ratio or intensity value. The RGB ratio or contrast difference allows the stable detection of differently colored, black, grey or white marks or objects.

- White LED for color independence
- Fast response time of min. 60 μ s
- Timer function for variable ON or OFF delay up to 5 seconds
- Remote teaching or easy one-button teaching



Quick Link
B338

E3X-DAH-S

Infrared Digital Fiber Amplifier

Digital fiber amplifiers with infrared LED are ideal for detection applications in dusty or misty environments, or where visible light is not desired (such as film and photo processing labs).

- Infrared LED
- LED power control and signal processing function