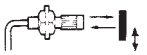
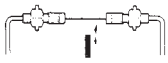
OMRON

Sensing distance		Supply voltage	Output
 (Optical fiber series)		10 to 30 VDC	 80 mA, 100 mA

Photoelectric Sensor

E3S-X

Fiber Optics Amplifier Unit with a Rugged Metal Housing

- Wide variety of fiber units allow detection in a limited space.
- Easy adjustment with LIGHT and STABILITY indicators.
- High-speed response time of 1 ms essential for sensing minute objects is provided.
- Mutual interference protective circuit allows side-by-side mounting of two fiber units.

Ordering Information

Amplifier Unit

Output	Model
NPN	E3S-X3CE4
PNP	E3S-X3CB4

Optical Fiber Units

To order optical fiber units, refer to the *E32 Datasheet (E48-E1)*.

Specifications

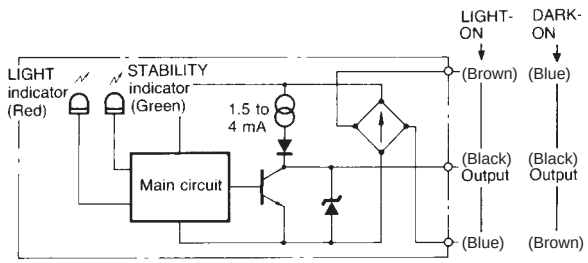
■ Ratings/Characteristics

Power supply voltage			12 VDC –10% to 24 VDC +10%; ripple (p-p): 10% max.
Current consumption			50 mA max.
Control output	**DC solid-state**	**Load**	E4 (NPN): 80 mA max. B4 (PNP): 100 mA max.
		Voltage output	2.0 V max.
Response time (ON, OFF)			1 ms max.
Sensitivity			Adjustable
Operation mode			Wire-selectable (Refer to *"Output Circuits"*)
Indicators			Light indicator (red), stability indicator (green)
Mutual interference protection			Provided
Enclosure rating			IEC144: IP66 NEMA: 1, 3, 4X, 12
Housing material			Metal
Light source			Infrared LED
Ambient temperature			Operating: –25 to 55 °C

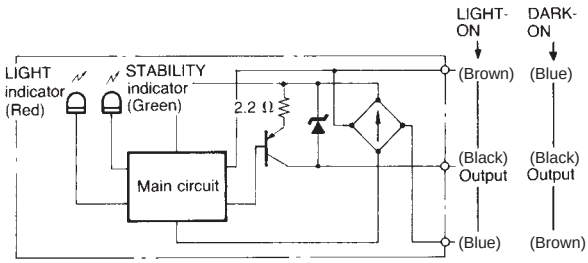
Operation

■ Output Circuits

E3S-X3CE4 (NPN Output)

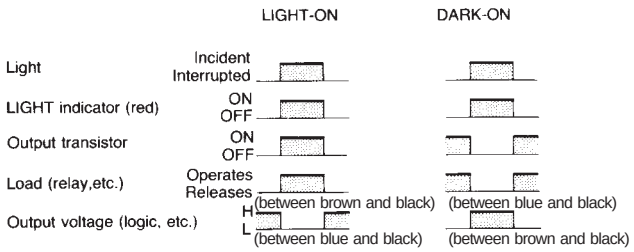


E3S-X3CB4 (PNP Output)

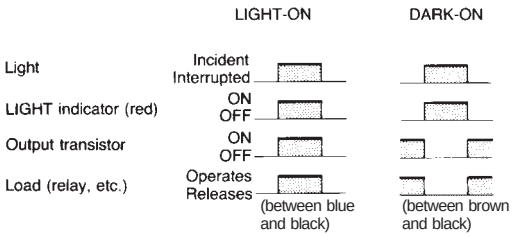


■ Timing Chart

E3S-X3CE4 (NPN Output)



E3S-X3CB4 (PNP Output)

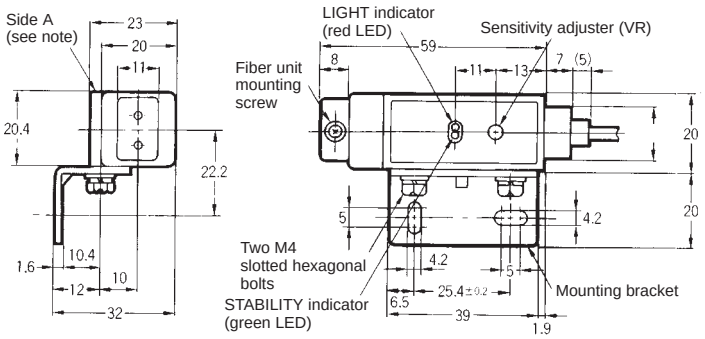


Dimensions

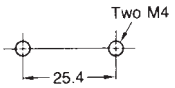
Note: All units are in millimeters unless otherwise indicated.

E3S-X3C□4

Cord: Polyvinyl chloride-covered cord
4.3C x 0.2-mm dia., 18/0.12
Standard length: 2 m



Mounting Holes



Note: A mounting bracket can be attached to side A.

Precautions

Mounting the Fiber Unit

Plastic Fiber

To connect the fiber unit with the amplifier unit, insert the two cable ends of the fiber unit into the head of the amplifier unit, and sandwich them between the head and the cover fitting. Secure the cover fitting with the M3 screw.
If the fibers are not inserted completely, sensing distance may be shortened.