

### Small, Rugged DC Amplifier for E32-Series Fibers

- Fast 1 ms maximum response time for high-speed detection and inspection
- Diecast housing withstands rugged use, meets IP66 requirements
- Light-on/dark-on operation, wire selectable
- Mutual interference protection permits side-by-side mounting
- Wide variety of fiber-optic cables
- Easy-to-read 8 mm-high LED display
- Ready-to-use: prewired with 2 m (6.56 ft) cable, includes mounting bracket



## Ordering Information

### ■ AMPLIFIERS

Output type	NPN output	PNP output
Part number	E3S-X3CE4	E3S-X3CB4

### ■ REPLACEMENT PARTS

Description	Part number
Mounting bracket (supplied with each sensor)	E39-L6

# Specifications

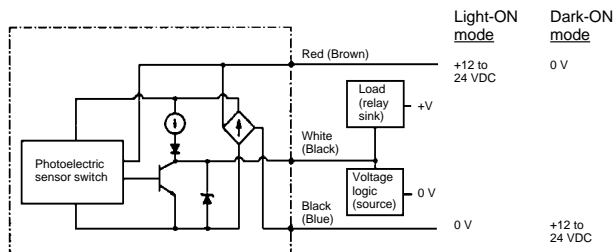
## ■ AMPLIFIERS

Part number		E3S-X3C□4	
Supply voltage		12 to 24 VDC ±10%	
Current consumption		50 mA max.	
Required fiber-optic cables		E32-Series fiber-optic cables	
Light source		Pulse modulated red LED	
Operation mode		Light-ON/Dark-ON, wire selectable	
Sensitivity		Adjustable	
Mutual interference protection		Provided	
Control output	DC solid-state	Type	NPN-SPST open collector with constant current source (E3S-X3CE4) PNP-SPST open collector (E3S-X3CB4)
		Max. load	NPN type:           Load (relay, sink) logic:   80 mA Voltage (source) logic:   1.5 to 3 mA PNP type:           Load (relay, source) logic: 100 mA
		Max. on-state voltage drop	1.2 VDC
Response time	On	1 ms max.	
	Off	1 ms max.	
Circuit protection	Output short-circuit	Provided	
	DC power supply reverse polarity	Provided	
Indicators		Light Incident (red LED), Output Stability (green LED)	
Materials	Case	Diecast zinc	
	Cable sheath	Plastic	
Mounting		Side mounting with two through holes; Bracket E39-L6 and hardware included	
Connections	Prewired	3-conductor cable, 2 m (6.56 ft) length	
Weight		200 g (7.05 oz.)	
Enclosure ratings	UL	—	
	NEMA	1, 4, 4X, 12	
	IEC 144	IP66	
Approvals	UL	—	
	CSA	—	
Ambient temperature	Operating	-25° to 55°C (-13° to 131°F)	
	Storage	-40° to 70°C (-40° to 158°F)	

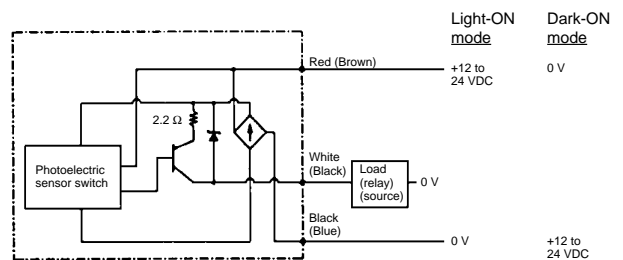
# Operation

## ■ OUTPUT CIRCUIT DIAGRAMS

### NPN output



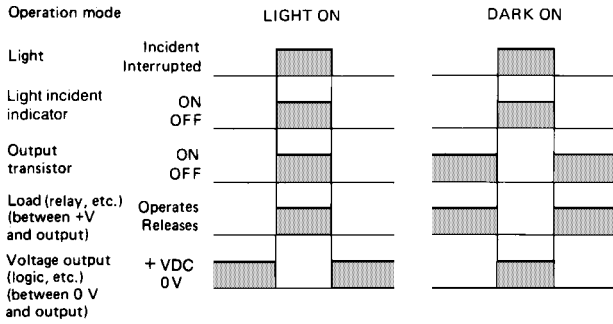
### PNP output



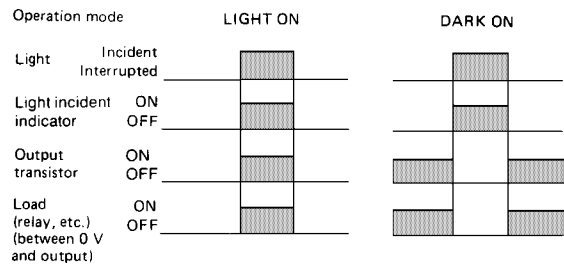
Note: IEC colors are shown in parentheses.

■ TIMING CHARTS

NPN output



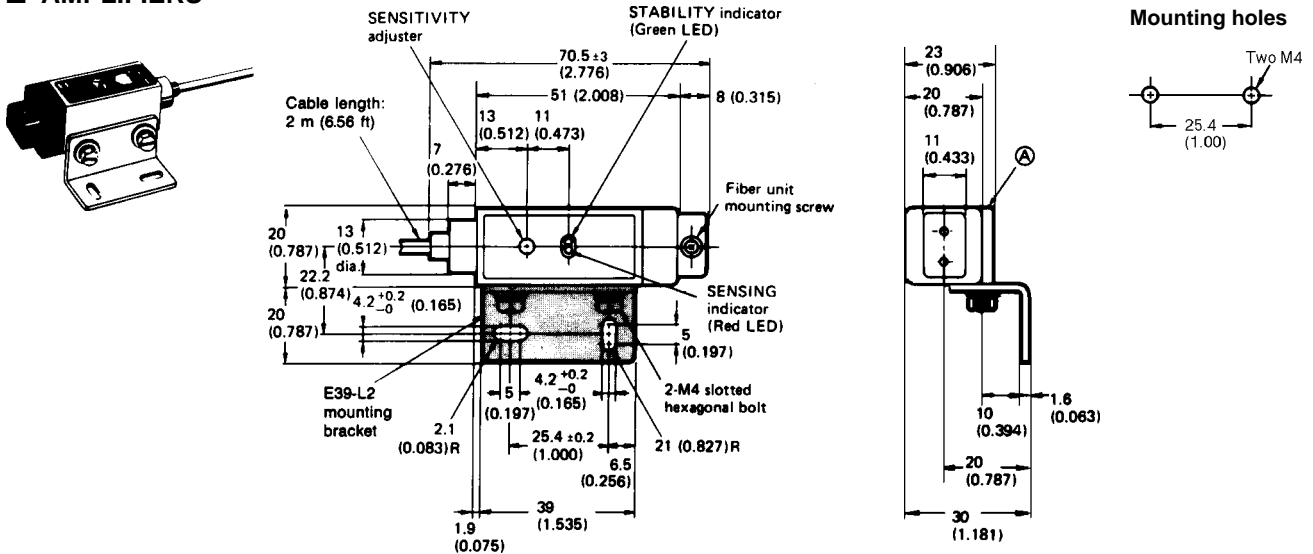
PNP output



Dimensions

Unit: mm (inch)

■ AMPLIFIERS



■ FIBER-OPTIC CABLES

Refer to E32 data sheet for specifications and dimensions of fiber-optic cables and accessories.



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Specifications subject to change without notice.

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