

Authorised Distributors:-

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Compact Photoelectric Sensor
with Built-in Amplifier

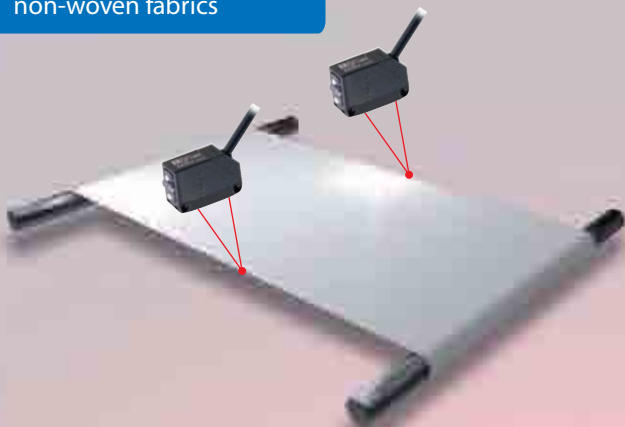
E3Z
FAMILY

OMRON

The New E3Z Simplifies Positioning with a Super-sharp Beam

The small, 2-mm-diameter spot does not miss its target.

Use it to detect edges of
non-woven fabrics



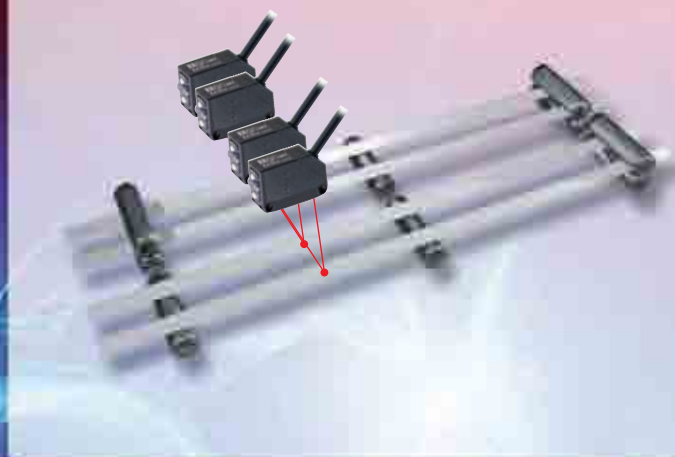
Use it to detect the presence
of sheet materials



Precisely eliminates
background influences!

Differential travel of 2% max.
is the best in its class.

Use it to detect the presence
of strip materials



E3Z-LS63/83

Distance-settable Photoelectric Sensor



Ordering Information

Sensors

Red light

| Sensing method | Appearance | Connection method | Sensing distance (white paper) | Model | |
|-------------------|------------|--------------------------------|--------------------------------|------------|------------|
| | | | | NPN output | PNP output |
| Distance-settable | | Pre-wired (2 m) (See note.) | | E3Z-LS63 | E3Z-LS83 |
| | | 4-pin M8 Connector | | E3Z-LS68 | E3Z-LS88 |

Note: Models with a 0.5-m cable are also available as a standard feature. When ordering, specify the cable length by adding the code "0.5M" to the model number (e.g., E3Z-LS63 0.5M).

Ratings and Specifications

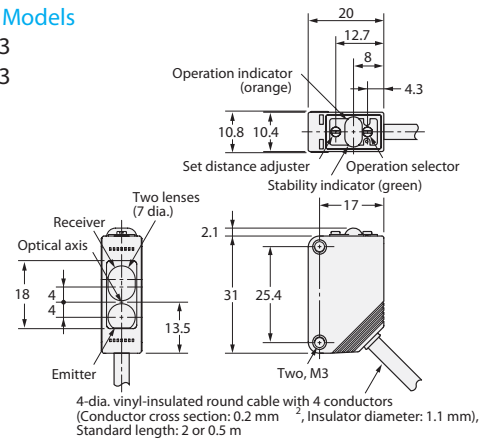
| Sensing method | | Distance-settable | |
|---|-------|--|----------|
| Item | Model | E3Z-LS63 | E3Z-LS68 |
| | | E3Z-LS83 | E3Z-LS88 |
| Sensing distance | BGS | 2 mm to set distance (80 mm max.) | |
| Setting range | | White paper (100 x 100 mm): 20 to 80 mm | |
| Differential travel | | 2% of set distance max. | |
| Reflectivity characteristic (black/white error) | | 5% of set distance max. | |
| Light source (wavelength) | | Infrared LED (650 nm) | |
| Spot diameter | | Approx. 2 mm (min. value at 50±10 mm) | |
| Power supply voltage | | 2 to 24 VDC ±10%, ripple (p-p): 10% max. | |
| Current consumption | | 30 mA max. | |
| Control output | | Load power supply voltage: 26.4 VDC max., Load current: 100 mA max., Residual voltage: 1 V max. Open collector output (NPN/PNP depending on model), Light-ON/Dark-ON selectable | |
| Protection circuits | | Reversed power supply polarity protection, Output short-circuit protection, Mutual interference prevention | |
| Response time | | Operate or reset: 1 ms max. | |
| Distance setting | | 5-turn endless adjuster | |
| Degree of protection | | IP67 (IEC standards) | |
| Indicator | | Operation indicator (orange), Stability indicator (green) | |
| Material | Case | PBT (polybutylene terephthalate) | |
| | Lens | Denatured polyarylate resin | |
| Accessories | | Instruction manual (Mounting brackets are not provided.) | |

Dimensions

(Unit: mm)

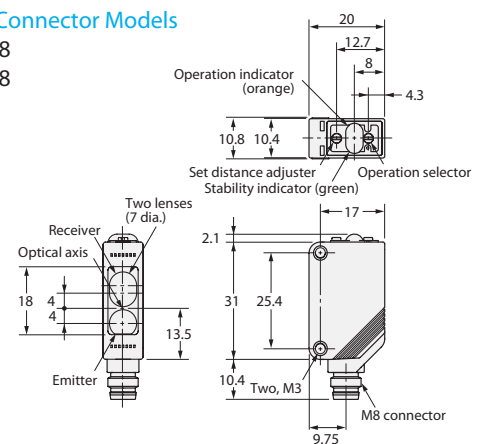
Pre-wired Models

E3Z-LS63
E3Z-LS83

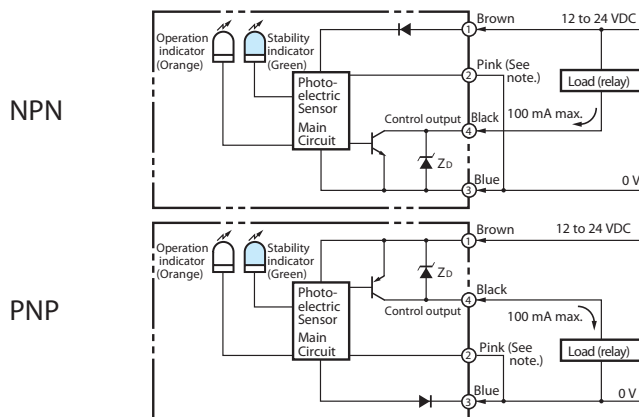


4-pin M8 Connector Models

E3Z-LS68
E3Z-LS88

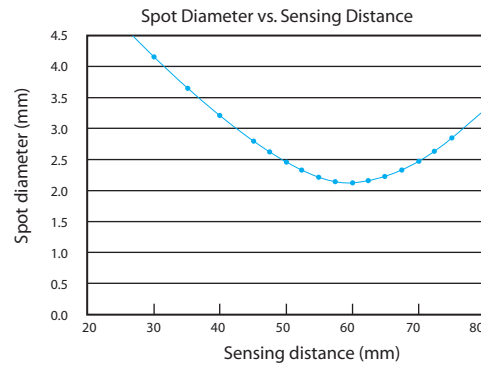


I/O Circuit Diagrams



Note: For BGS, either leave the pink wire (2) open or connect it to 0 V.

Engineering Data (Typical Example)



This document provides information mainly for selecting suitable models. Please read the Sensor General Catalog carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.

Note: Do not use this document to operate the Unit.

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Note: Specifications subject to change without notice.

Cat. No. E360-E1-01
Printed in Japan
0405-2M (0405) (B)



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