

Compact Photoelectric Sensor
with Built-in Amplifier

E3Z

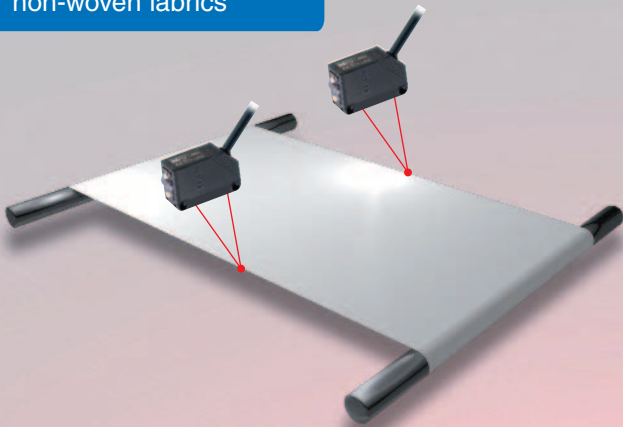
FAMILY

OMRON

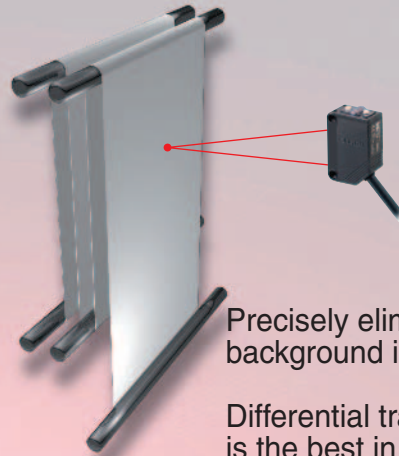
The New E3Z Simplifies Positioning with a Super-sharp Beam

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

Use it to detect edges of
non-woven fabrics



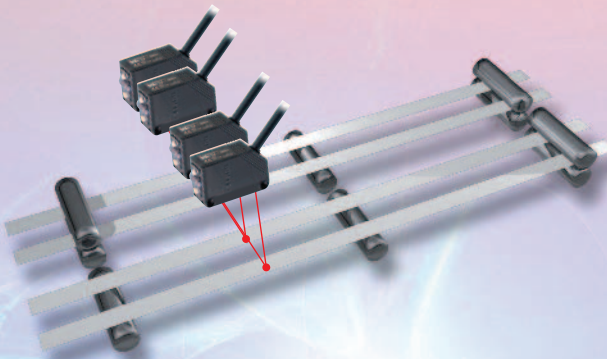
Use it to detect the presence
of sheet materials



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.)	2 mm BGS (set to minimum) to 20 mm	E3Z-LS63	E3Z-LS83
		4-pin M8 Connector	20 mm to 80 mm BGS (set to maximum)	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

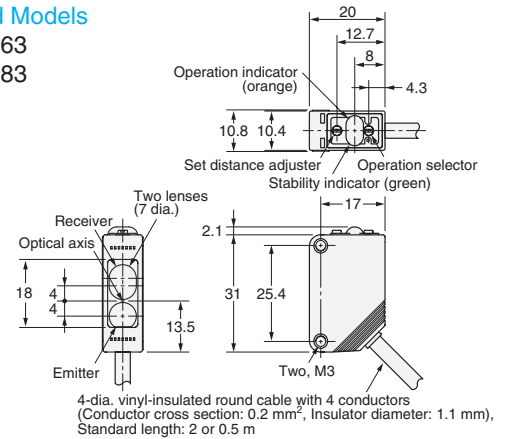
Item	Sensing method		Distance-settable	
	Model	NPN output	E3Z-LS63	E3Z-LS68
Sensing distance	BGS		E3Z-LS83	E3Z-LS88
Setting range		2 mm to set distance (80 mm max.)		
Differential travel		White paper (100 x 100 mm): 20 to 80 mm		
Reflectivity characteristic (black/white error)		2% of set distance max.		
Light source (wavelength)		Infrared LED (650 nm)		
Spot diameter		Approx. 2 mm (min. value at 50±10 mm)		
Power supply voltage		12 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)

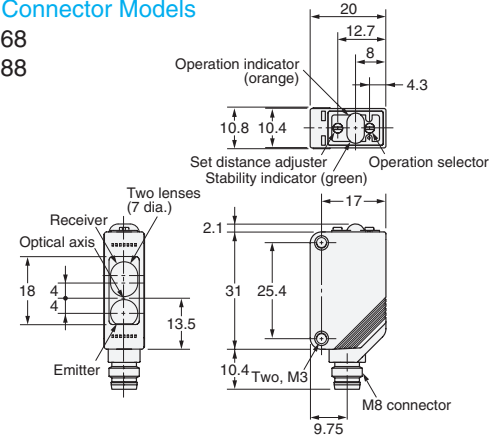
Pre-wired Models

E3Z-LS63
E3Z-LS83

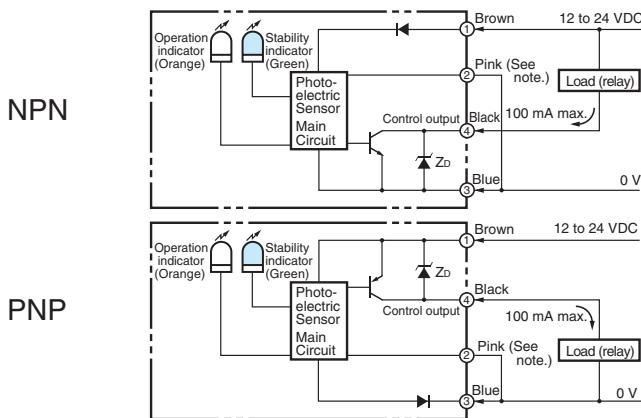


4-pin M8 Connector Models

E3Z-LS68
E3Z-LS88

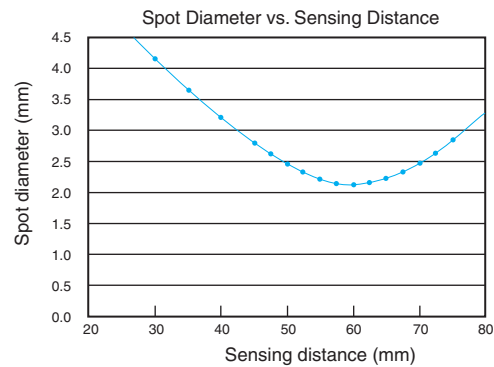


I/O Circuit Diagrams



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.

OMRON Corporation
Industrial Automation Company

Industrial Sensors Division
Sensing Devices and Components Division H.Q.
Shiokoji Horikawa, Shimogyo-ku,
Kyoto, 600-8530 Japan
Tel: (81)75-344-7022/Fax: (81)75-344-7107

Regional Headquarters

OMRON EUROPE B.V.
Sensor Business Unit,
Carl-Benz-Str. 4, D-71154 Nufringen,
Germany
Tel: (49)7032-811-0/Fax: (49)7032-811-199

OMRON ELECTRONICS LLC
1 East Commerce Drive, Schaumburg,
IL 60173 U.S.A.
Tel: (1)847-843-7900/Fax: (1)847-843-8568

OMRON ASIA PACIFIC PTE. LTD.
83 Clemenceau Avenue,
#11-01, UE Square,
239920 Singapore
Tel: (65)6835-3011/Fax: (65)6835-2711

OMRON CHINA CO., LTD. BEIJING OFFICE
Room 1028, Office Building,
Beijing Capital Times Square,
No. 88 West Chang'an Road,
Beijing, 100031 China
Tel: (86)10-8391-3005/Fax: (86)10-8391-3688

Authorized Distributor:

Note: Specifications subject to change without notice.

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