Focused-beam Photoelectric Sensor

PZ-101

Refer to P.837 for a list of products complying with EU Directives.

Refer to P.853 for UL Certified Products.



Features

- Detecting distance of 0 to 100 mm
- Red LED as light source
- Visible beam spot as small as 5 x 5 mm
- Visible beam allows easy alignment with target.

Expert Engineering Sites

www.sensorcentral.com



An on-line guide of automation knowledge and techniques

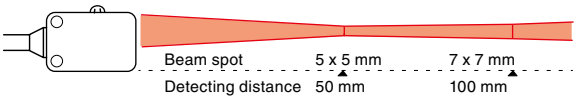
Small visible beam spot

The PZ-101 utilises a special lens to create the small beam spot. The red LED light source enables visible confirmation of the detection spot position.

• Detecting distance of 0 to 100 mm

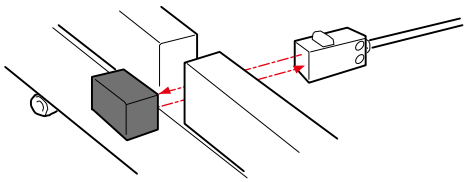


• Visible beam spot as small as 5 x 5 mm

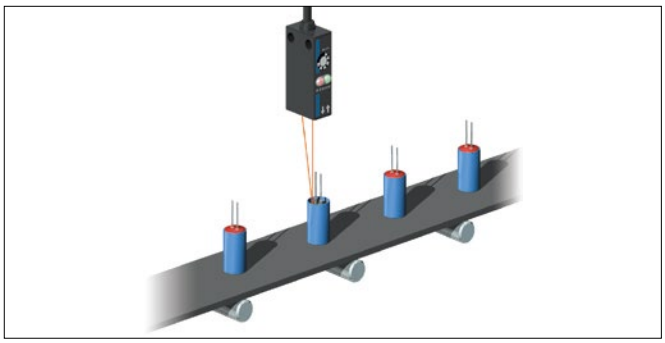


Detection possible from a break or opening in a conveyor

Since the emitted beam is very narrow, the sensor can be placed in a location of limited space to detect an object through a break or opening in an assembly line.



Applications



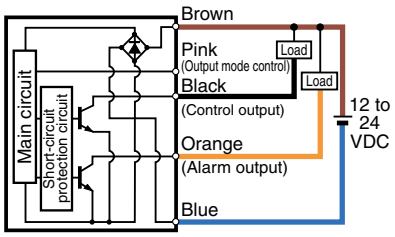
Detection of rubber cover on capacitor

Specifications

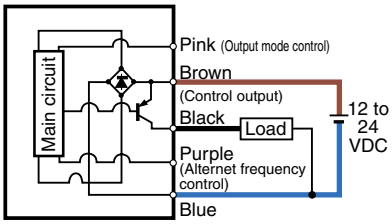
Type		Focused-beam
Model	NPN	**PZ-101**
	PNP	**PZ-101P**
Detecting distance		0 to 100 mm
Detectable object		Transparent and opaque materials
Hysteresis		20% max. of detecting distance
Response time		1 ms max. (2 ms in alternate frequency mode)
Light source		Visible red LED
Sensitivity adjustment		1-turn trimmer (240°)
Operation mode		LIGHT-ON/DARK-ON (selectable by wiring)
Indicators		Output: Red LED, Stable operation: Green LED, Power supply: Red LED
Control output	NPN	NPN open-collector 100 mA max. (40 V max.)
	PNP	PNP open-collector 100 mA max. (30 V max.)
Alarm output (NPN type only)		NPN: 50 mA (40 V) max.
Power supply		12 to 24 VDC ±10%
Current consumption		30 mA max.
Enclosure rating		IP67
Ambient light		Incandescent lamp: 5,000 lux max., Sunlight: 20,000 lux max.
Ambient temperature		-20 to +55°C, No freezing
Relative humidity		35 to 85%, No condensation
Housing		Glass-fibre reinforced plastic
Weight (including 2-m cable)		Approx. 75 g

Input/Output Circuits

NPN



PNP



Dimensions

Unit: mm

PZ-101(P)

