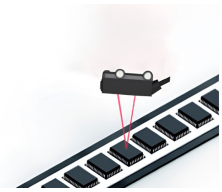
Compact Size Background Suppression Sensor

[PB Series]

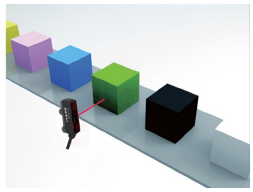
- Uninterrupted by colour or background
- High precision with minimal differential distance
- Minimal laser spot for pinpoint accuracy

CE

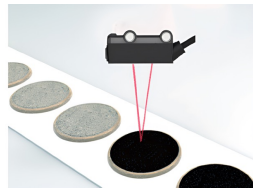
Applications



Metal part detection



Part detection with multi colour



High speed part detection

Sensor variant

Detection type	Detecting distance	Light source	Output	
			NPN	PNP
Reflection	10 to 150 mm	Red Laser (650 nm)	**PB-15N**	**PB-15P**

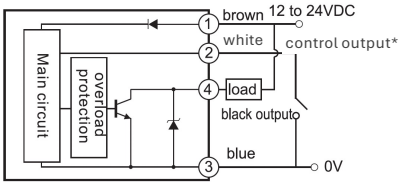
Specifications

Model		
	NPN	**PB-15N**
	PNP	**PB-15P**
Detecting distance		3 to 150 mm
Stable detecting distance		5 to 100 mm
Beam type		Round spot
Smallest beam diameter		Ø 1.5 mm (at 100 mm distance)
Light source		Red laser (650 nm), class 2
Power supply		12 to 24 VDC including Ripple ±10% (P-P)
Current consumption		25 mA or less
Control output		NPN / PNP open collector output, 24 V max., 50 mA max., Residual voltage 1 V (below 10 mA)
Operation mode		Detection-ON / Detection OFF switch selectable
Circuit protection		Incorporated
Response time		0.6 ms or less
Distance adjustment		Multi rotation mechanical adjuster
Automatic interference prevention		Reversed polarity, overcurrent protection, surge absorber
Enclosure rating		IP65
Ambient light		Incandescent lamp: 3,000 lux max.
Ambient temperature		-25 to +55°C (No freezing)
Relative humidity		35 to 85% RH (No condensation)
Vibration resistance		10 to 55 Hz, 1.5 mm double amplitude in the X, Y and Z directions, for 2 hours respectively
Shock resistance		500 m/s^2 3 times in the X and Y direction

Input / Output Circuits

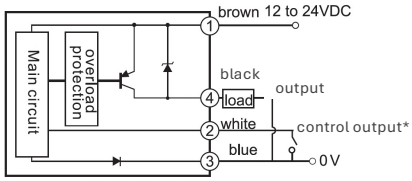
PB-15

NPN

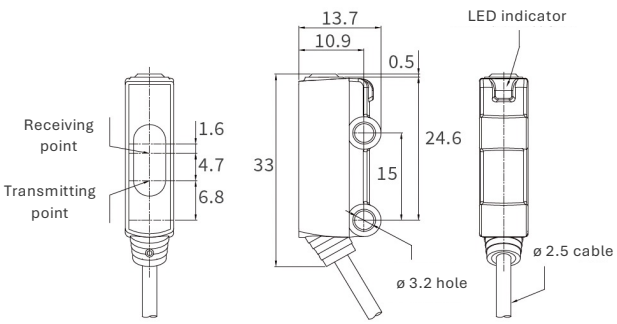


*leave white empty for LIGHT-ON operation mode

PNP



*leave white empty for LIGHT-ON operation mode

Dimensions

PB-15