

Medium-Long Range

Multi-Application

Photoelectric Sensor

PK-L Series



Ask SENPUM

+86-755-83330055

Fast Delivery Standard Models



Most products are in stock. Upon receiving your order, we will arrange prompt shipment to minimize your downtime-related costs and losses.



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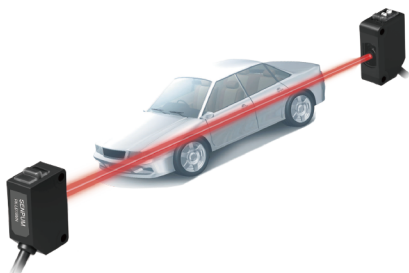
WhatsApp



LINE

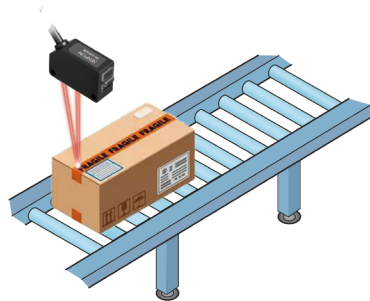
Thrubeam type can detect up to 15 m or more

High grayscale LEDs enable long-distance detection and are easy to align and debug.



Optical system is specially designed for easy and stable detection

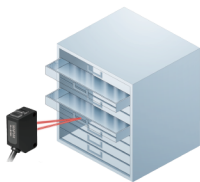
Detects objects within a specified range.



Reflective type can detect up to 1 m or more

Multi-purpose type offers excellent performance and can be used in a variety of situations.

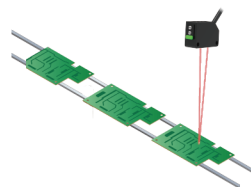
Applications



For medical tray ejection confirmation



Widely used in automotive applications



Stable detection of surface irregularities

Product List

Main Unit

Type	Appearance	Detection distance	Wiring method	Model	
				NPN	PNP
Reflective type	 2 m cable	 1 m	2 m cable	PK-LB100N	PK-LB100P
	 M8 Connector		M8 Connector	PK-LB100CN	PK-LB100CP
	 2 m cable	 300 mm	2 m cable	PK-LC030N	PK-LC030P
	 M8 Connector		M8 Connector	PK-LC030CN	PK-LC030CP
Retro-reflective type	 2 m cable	 3 m	2 m cable	PK-LR300N	PK-LR300P
	 M8 Connector		M8 Connector	PK-LR300CN	PK-LR300CP
Thrubeam type	 2 m cable	 10 m	2 m cable	PK-LD10MN	PK-LD10MP
	 M8 Connector		M8 Connector	PK-LD10MCN	PK-LD10MCP
	 2 m cable	 15 m	2 m cable	PK-LD15MN	PK-LD15MP
	 M8 Connector		M8 Connector	PK-LD15MCN	PK-LD15MCP

Cable (sold separately)

Type	Appearance	Material	Cable	Model
Straight type		PVC	2 m	OW-PK-008M-04
L-type				OW-PK-008ML-04

Specifications

Main Unit

Type		Reflective type				Retro-reflective type		Thrubeam type			
		Long distance	Long distance connector	BGS	BGS connector	Reflective	Reflective connector	Thrubeam	Thrubeam connector	Thrubeam	Thrubeam connector
Model	NPN	PK-LB100N	PK-LB100CN	PK-LC030N	PK-LC030CN	PK-LR300N	PK-LR300CN	PK-LD10MN	PK-LD10MCN	PK-LD15MN	PK-LD15MCN
	PNP	PK-LB100P	PK-LB100CP	PK-LC030P	PK-LC030CP	PK-LR300P	PK-LR300CP	PK-LD10MP	PK-LD10MCP	PK-LD15MP	PK-LD15MCP
Detection distance		1 m		30–300 mm		3 m		10 m		15 m	
Spot size		Approx. $\Phi 75$ at 1 m		Approx. $\Phi 8$ at 90 mm		–		–		Approx. 600 mm at 15 m	
Object to be detected						Opaque objects above $\Phi 15$ mm					
Light source		Red LED 660 nm				Red LED 620 nm					
Power voltage		DC 12 to 24 V $\pm 10\%$ pulsation (p-p) 10% or less (10 to 30 V)									
Control output		NPN or PNP open collector: up to 100 mA (30 V)									
Current consumption		<20 mA				<30 mA		Transmitter under 15 mA: <15 mA Receiver under 15 mA: <15 mA			
Response time		1 ms									
Sensitivity adjustment		Screwdriver adjustment setting: single-turn potentiometer				Screwdriver adjustment setting: 5-turn potentiometer		Screwdriver adjustment setting: single-turn potentiometer			
Indicator		Motion indication: Orange LED; Power, Stability indicator: Green LED									
Circuit protection		Short circuit protection, power reverse polarity protection, output reverse polarity protection									
Protection class		IEC IP67									
Ambient light		Incandescent lamp: Maximum 3,000 lux; Sunlight: Maximum 10,000 lux									
Ambient temperature		Operating temperature: -25 to +55 °C (no icing, no condensation) Storage temperature: -40 to +70 °C (no icing, no condensation)									
Relative humidity		35 to 85% RH (no condensation)									
Vibration resistance		10 to 55 Hz, Compound amplitude 1.5 mm, 2 hours in each of the X, Y, and Z directions									
Shock resistance		500 m/s ² , 3 times in each of the X, Y, and Z directions									
Connection type		Standard cable 2 m	Connector M8-4Pin	Standard cable 2 m	Connector M8-4Pin	Standard cable 2 m	Connector M8-4Pin	Standard cable 2 m	Connector M8-4Pin	Standard cable 2 m	Connector M8-4Pin
Material		Housing: PBT; Lens: Optical PMMA									



PK-L

Medium-Long Range Multi-Application Photoelectric Sensor

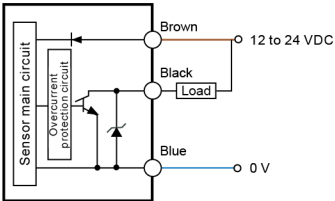
Connection Cable

Type	Straight type	L-type
Model	OW-PK-008M-04	OW-PK-008ML-04
Connector type	Pico Style M8	
Material	PVC	
Rated current	1.5 A	
Rated voltage	60 VAC / 75 VDC	
O-ring seal	Fluororubber	
Safety nut fixing	Nickel-plated copper	
Protection class	IP67	
Contact resistance	≤5 MΩ	
Insulation resistance	> 10 ⁹ Ω	
Conductor specification	0.14 mm ²	
Length	2 m	

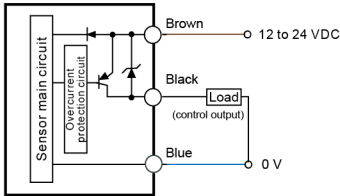
¹ Customized production is available for special requirements.

I/O Circuit Diagrams

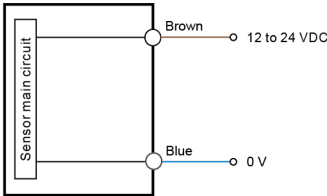
NPN output type



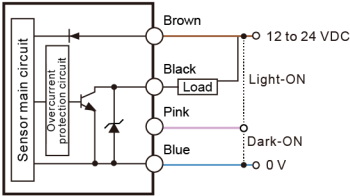
PNP output type



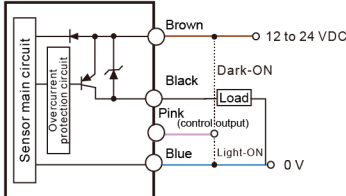
Thrubeam emitter circuit



BGS-type NPN output



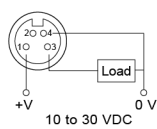
BGS-type PNP output



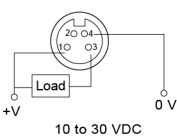
Connector Schematic

Plug-in type

NPN 3-wire DC



PNP 3-wire DC

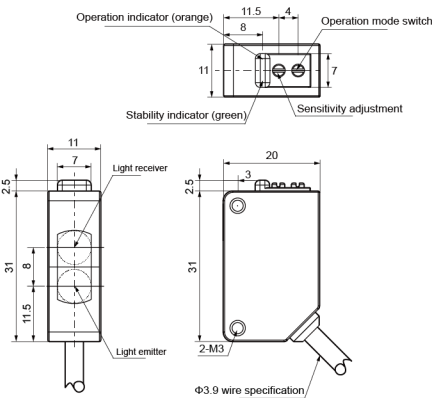


Terminal number	Specification description
1	+V
2	Not connected
3	Output
4	0 V

Dimensions

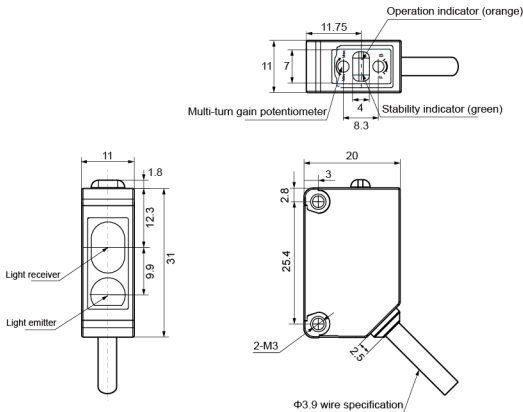
Reflective type, retro-reflective type, cable type

PK-LB100N PK-LB100P
PK-LR300N PK-LR300P



Reflective type, cable type

PK-LC030N PK-LC030P



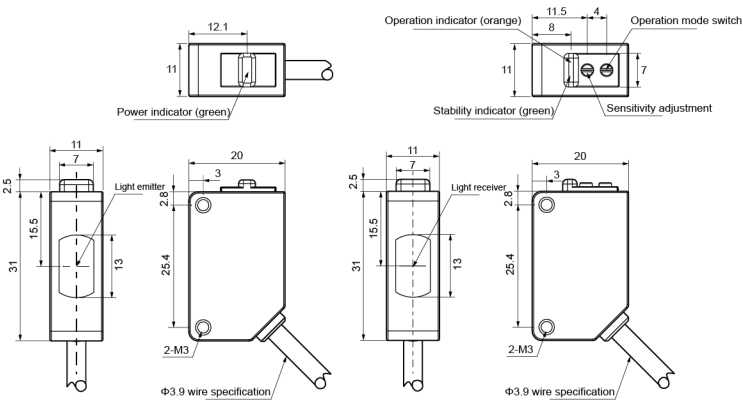
Unit: mm

Dimensions

Unit: mm

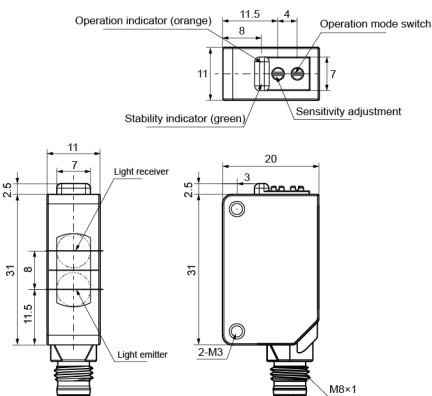
Thru-beam type, cable type

PK-LD10MN PK-LD10MP
PK-LD15MN PK-LD15MP



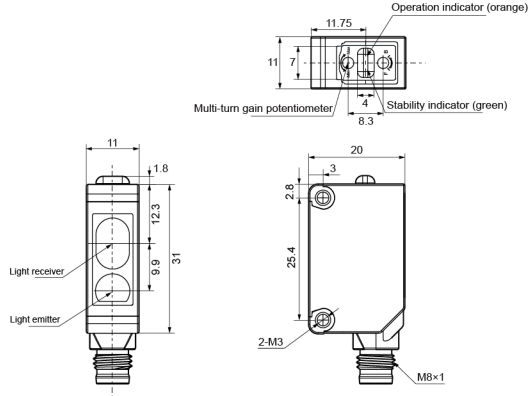
Reflective type, retro-reflective type, connector type

PK-LB100CN PK-LB100CP
PK-LR300CN PK-LR300CP



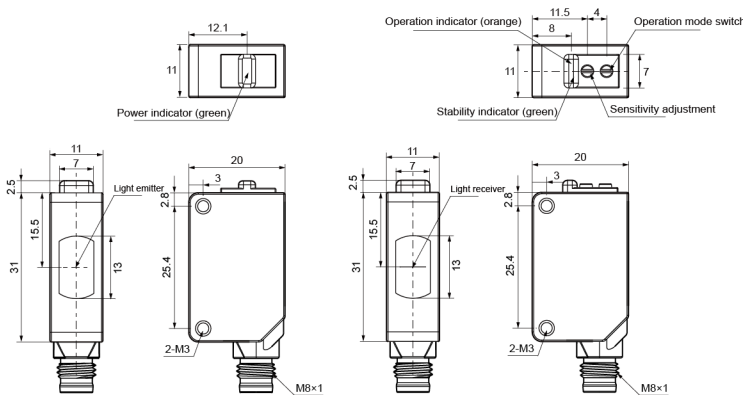
Reflective type, connector type

PK-LC030CN PK-LC030CP

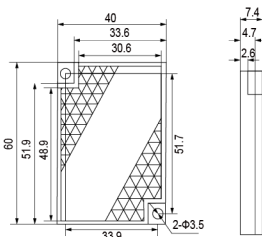


Thru-beam type, connector type

PK-LD10MCN PK-LD10MCP
PK-LD15MCN PK-LD15MCP



Reflector mounting dimensions



Photoelectric Sensors

PX-400
PL-M/F
PK-L
PH2-T
PM-T
PQ-100
SE2-45
SE2-25
SE-400

Fiber Optic Sensors

Photoelectric Sensors

Color Sensors

Laser Sensors

Proximity Sensors

Precision Contact Sensors

Area Sensors/
Safety Light Curtains

Laser Scanners

Digital Contact Sensors

Laser Displacement Sensors

Laser Micrometers

Confocal Displacement Sensors

Barcode Readers

AI Vision Sensors

RFID

Infrared Temperature Sensors

Pressure Sensors

Flow Sensors

Magnetic Sensors

Ultrasonic Sensors

Magnetic Scales

Static Eliminators

