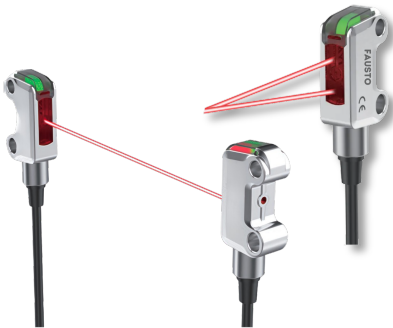


Compact Size Laser Photoelectric Sensor

[PT-D Series]

- Durable housing with SUS316L stainless-steel
- Diffuse reflective model with background suppression
- Small laser spot beam for precision detection



Sensor variant

Detecting type	Detecting distance	Light source	Output	
			NPN	PNP
Thru-beam	1.5 m	Approx. 3.5 mm (500 mm distance) Approx. 7 mm (1000 mm distance)	PT-T15N	PT-T15P
Diffuse	2 to 50 mm	Approx. 4 mm	PT-D050N	PT-D050P

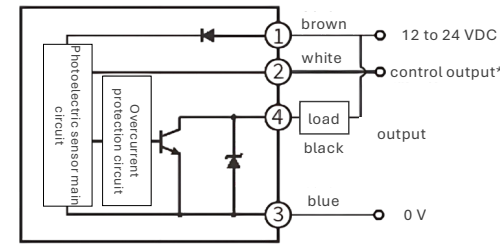
Specifications

Type	Diffuse		Thru-beam
Model	NPN	PT-D050N	PT-T15N
	PNP	PT-D050P	PT-T15P
Detecting distance	2 to 50 mm (white paper) 2 to 35 mm (black paper)		1,500 mm
Smallest beam diameter	Approx. 4 mm		Approx. 3.5 mm (500 mm distance) Approx. 7 mm (1000 mm distance)
Hysteresis	20% or less of operating distance		
Response time	1 ms		
Light source	Red LED (650 nm)		Red laser (650 nm)
Operation mode	LIGHT-ON / DARK-ON switch selectable		
Indicator	Output: Red LED, Operation: Green LED		
Power supply	12 to 24 VDC including Ripple $\pm 10\%$ (P-P)		
Current consumption	15 mA or less		30 mA or less
Ambient temperature	-10 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		
Enclosure rating	IP65		
Protection circuit	Incorporated		
Connection method	2 m cable		
Material	SUS316L		

Input / Output Circuits

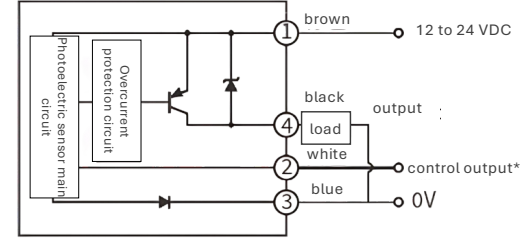
PT-D050

NPN



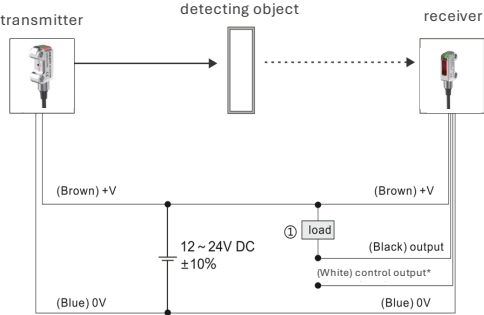
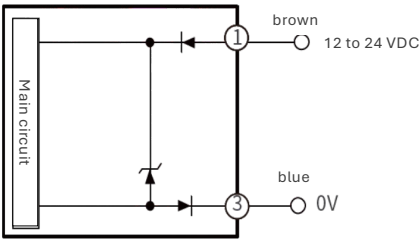
*leave white empty for N.O. operation mode

PNP

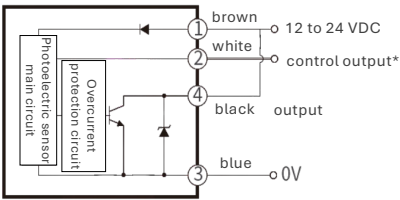


*leave white empty for N.O. operation mode

PT-T15
Transmitter

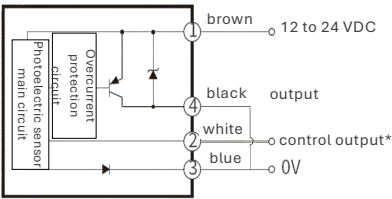


NPN



*leave white empty for LIGHT-ON operation mode

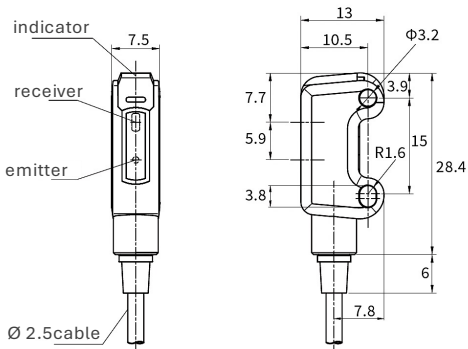
PNP



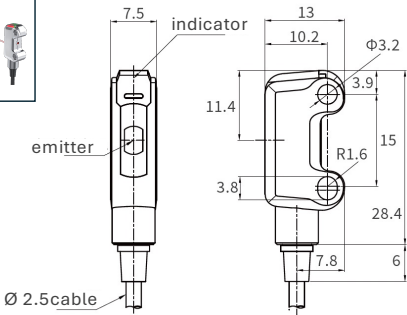
*leave white empty for LIGHT-ON operation mode

Dimensions

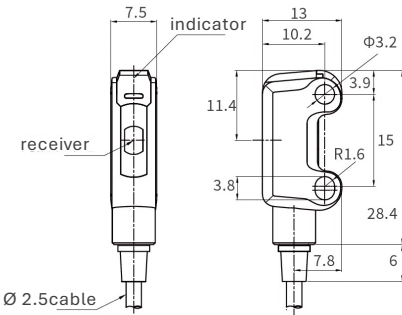
PT-D050



PT-T15
Emitter



Receiver



Photoelectric
Sensor

Overview

Code Reader

Handheld
Reader

Vision Sensor

Vision System

Fiberoptic
Sensor

Photoelectric
Sensor

RGB Colour
Sensor

Proximity
Sensor

Ultrasonic
Sensor

Safety Curtain

Ionizer