

- Thank you for using **TAKEX** products.
- Please read this manual carefully prior to use the sensor.

SPECIFICATIONS

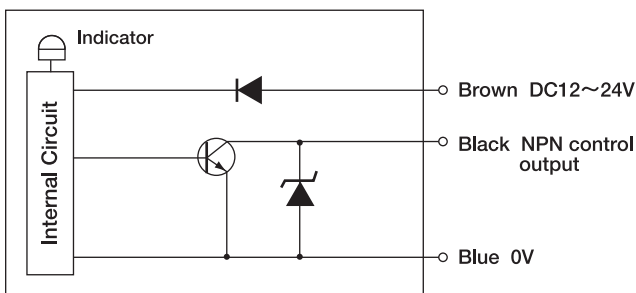
Model	DLZ-S30	DLZ-S30D	DLZ-S30-PN	DLZ-S30D-PN
Detection method	Convergent reflective (specular reflection)			
Detecting distance	Approx. 30mm (50×50mm white drawing paper)			
Detection object	φ 10mm or less (opaque, translucent, transparent)			
Power supply	12-24VDC ± 10% / Ripple 10% or less			
Current consumption	30mA or less			
Output mode	NPN open collector		PNP open collector	
Rating	Sink current 100mA (30VDC) or less		Source current 100mA (30VDC) or less	
Operation mode	Light ON	Dark ON	Light ON	Dark ON
Response time	0.5ms or less			
Hysteresis	2% or less			
Light source	Infrared LED (wavelength: 880nm)			
Indicator	Operation indicator (Red LED)			
Short circuit protection	Provided			
Material	Case	Polyarylate		
	Lens	Polycarbonate		
Connection	Attached cable (outer dimension: dia. 4mm) 0.2mm ² ×3 core 2m length			
Weight	Approx. 70g			

ENVIRONMENTAL CHARACTERISTICS

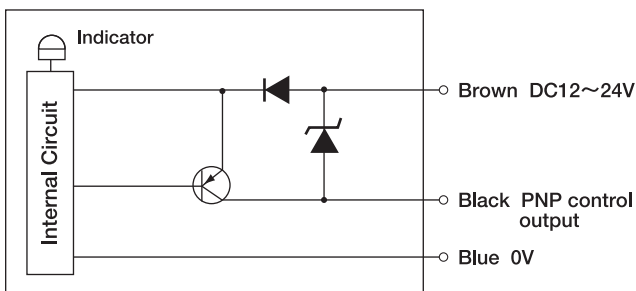
Ambient light	5,000 lx or less
Ambient temperature	−25 - +55°C (non-freezing)
Ambient humidity	35 - 85%RH (non-condensing)
Protective structure	I P 65
Vibration	10 - 55Hz 1.5mm Double amplitude, 2 Hr., 3 Direction
Dielectric strength	1,000VAC for 1minute
Insulation resistance	Min. 20MΩ (at 500VDC)
Shock resistance	500m/s ² 3 times in X,Y and Z directions

OUTPUT CIRCUIT

(NPN OUTPUT)



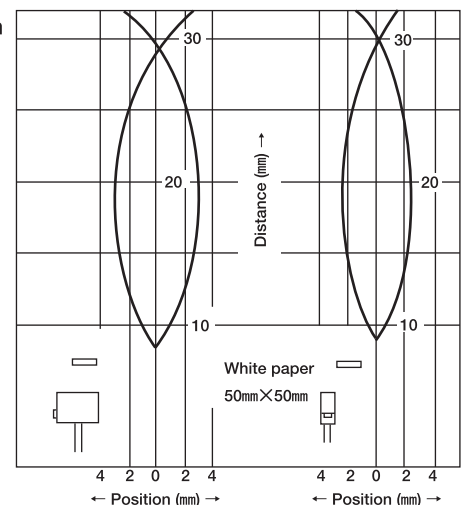
(PNP OUTPUT)



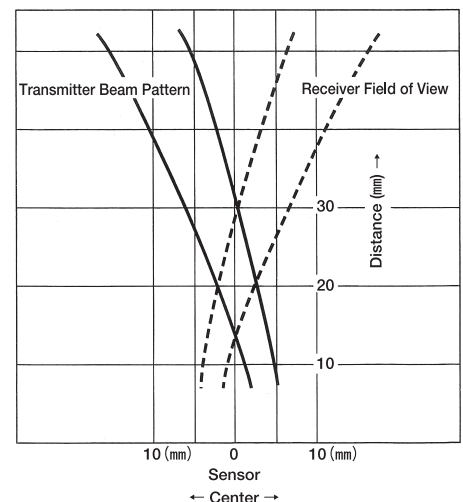
- Load short circuit or overload shut off the output transistor.
Turn the power back on after checking the load status.
- Avoid to turn on and off the power consequently.

CHARACTERISTICS

■ Operating width Characteristics



■ Field of View Characteristics

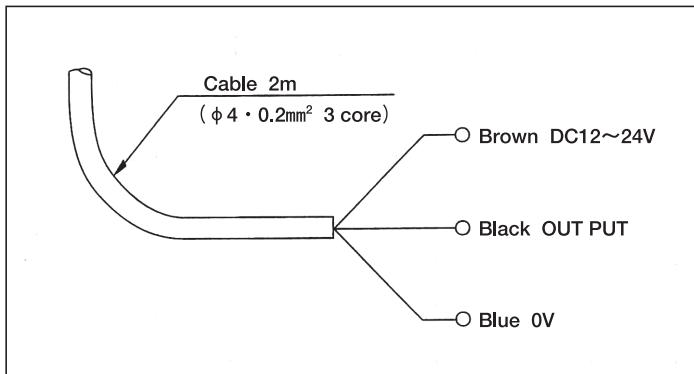


- Operating distance changes depending on the detecting object.

NOTES FOR INSTALLATION

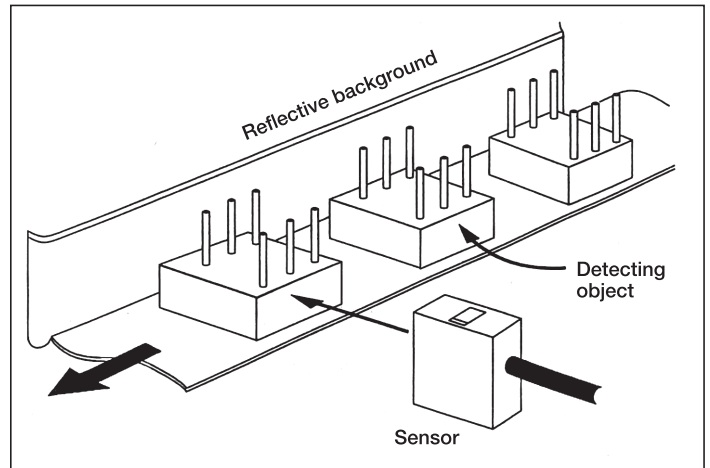
- Do not use the sensor where water or oil is splashing.
Do not expose the light receiving part of the sensor to disturbance lights directly.
- For easy maintenance install the sensor where the indicator is easy to see.
- Confirm the operation as the detecting distance may vary depending on the detecting object.
- High frequency fluorescent lamps or inverters may emit light or noise of similar modulated frequency that photo sensors generate.
Do not install the sensor in the vicinity of high-frequency equipment.
- Tightening torque of the screw should be 0.6N·m or less.
- Though this sensor has IP 65 rated housing, do not use the sensor where water is splashing constantly.
- Clean the lens by a soft and dry cloth periodically.
- Limit the current of the power supply to 2A in accordance with the size of the sensor cable.

WIRING AND NOTES

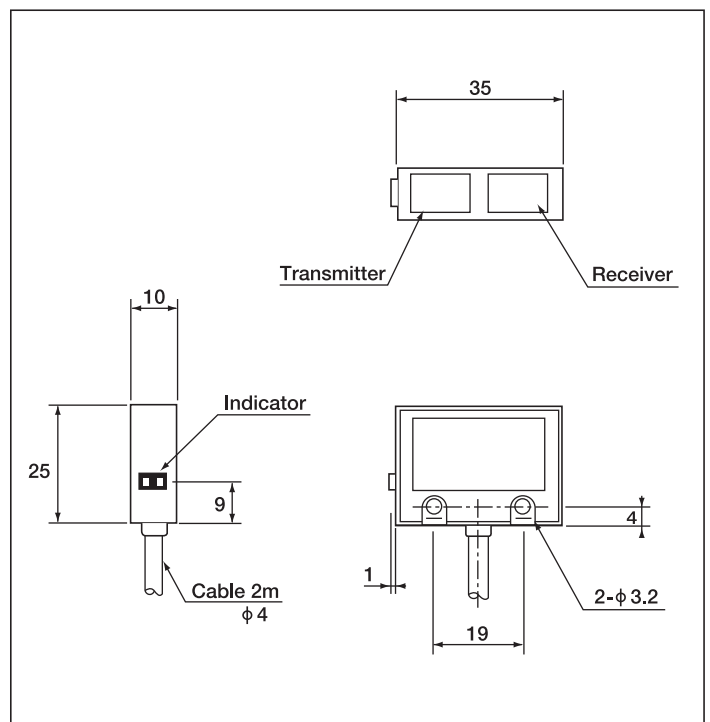


- Be sure to route the sensor wires separate from any power transmission or high voltage line. Use a same conduit or duct with high-voltage or power lines will cause malfunction or damage by induction.
- When using a DC power unit with an insulated transformer or a switching regulator, be sure to ground the frame ground (FG) terminal.
- Do not use DC power supply which uses an autotransformer.
- When expanding the wiring, use cables with 0.3mm^2 or more, and the length has to be 100m or less.

APPLICATION



DIMENSIONS



- This sensor is designed to detect a specific object. It is not provided with control functions for prevention of injuries or accidents in itself.
- Takex will not held responsible for any damage or loss incurred due to accidents, faulty installation, abuse, misuse, improper maintenance or acts of God including lightning surge.
- Specifications and dimensions may be subject to change without notice.