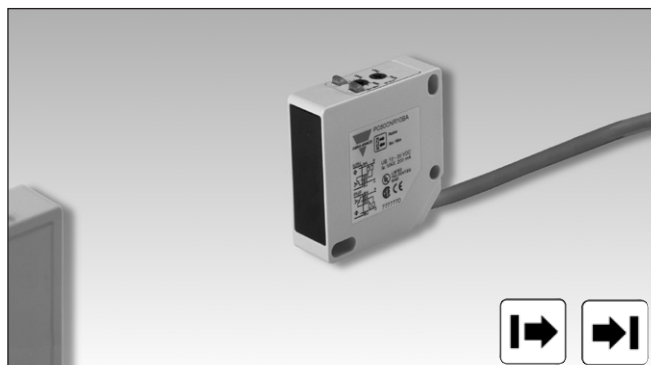


Photoelectrics Through-beam, Relay Output Type PC50CNT20R.



- Range: 20 m
- Adjustable sensitivity
- Modulated, infrared light
- Supply voltage:
12 to 240 VDC and 24 to 240 VAC, 50/60 Hz
- Output: Relay 3 A, 30 VDC, 240 VAC
- Make and break switching function
- LED-indication for output ON, signal stability and supply ON
- Excellent EMC



Product Description

The PC50CNT. is a family of general purpose through-beam sensors in a compact square 17 x 50 x 50 mm reinforced RC/ABS-housing. They are useful in applications where basic sensors provide

adequate sensing performance. The long sensing range together with sensitivity adjustment gives a very flexible sensor. Light and dark operation is switch selectable.

Ordering Key

PC50CNT20RP

Type _____
Housing style _____
Housing size _____
Housing material _____
Housing length _____
Detection principle _____
Sensing distance _____
Output type _____
Output configuration _____

Type Selection

Housing W x H x D	Range S _n	Ordering no. Receiver Make and break switching	Ordering no. Ermmitter
17 x 50 x 50 mm	20 m	PC 50 CNT 20 RP	PC 50 CNT 20 R

Note: Please order emitter and receiver separately

Specifications Emitter

Rated operational volt. (U _B)	12-240 VDC 24-240 VAC, 50-60 Hz	Optical angle	± 2° at 1/2 range
Rated operational power	≤ 2.5 VA	Indication function Power supply ON	LED, green
Light source Light type	GaAs LED, 880 nm Infrared, modulated		

Specifications Receiver

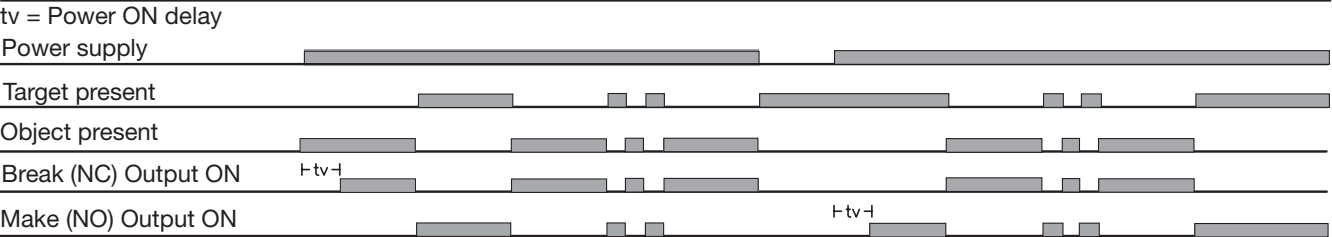
Rated operating dist. (S _n)	Up to 20 m	Protection	Reverse polarity, transients
Blind zone	None	Operating frequency (f)	20 Hz
Sensitivity	Adj. single-turn pot.meter	Response time OFF-ON (t _{ON})	≤ 25 ms
Temperature drift	≤ 0.5%/°C	ON-OFF (t _{OFF})	≤ 25 ms
Hysteresis (H) (differential travel)	3-20%	Power ON delay (t _v)	≤ 300 ms
Rated operational volt. (U _B)	12-240 VDC 24-240 VAC, 50-60 Hz	Output function	Light or dark operation is switch selectable
Rated operational power	≤ 2.0 VA (relay ON)	Indication function Output ON Supply ON, signal stability	LED, yellow LED, green
Output Contact ratings Resistive loads AC 1 DC 1	3 A/230 VAC 3 A/30 VDC (>10 mA/5 VDC)		
Mechanical life (typ.)	≥ 15 x 10 ⁶ operations		
Electrical life (typ.)	≥ 1 x 10 ⁵ operations at 3 A/240 VAC		



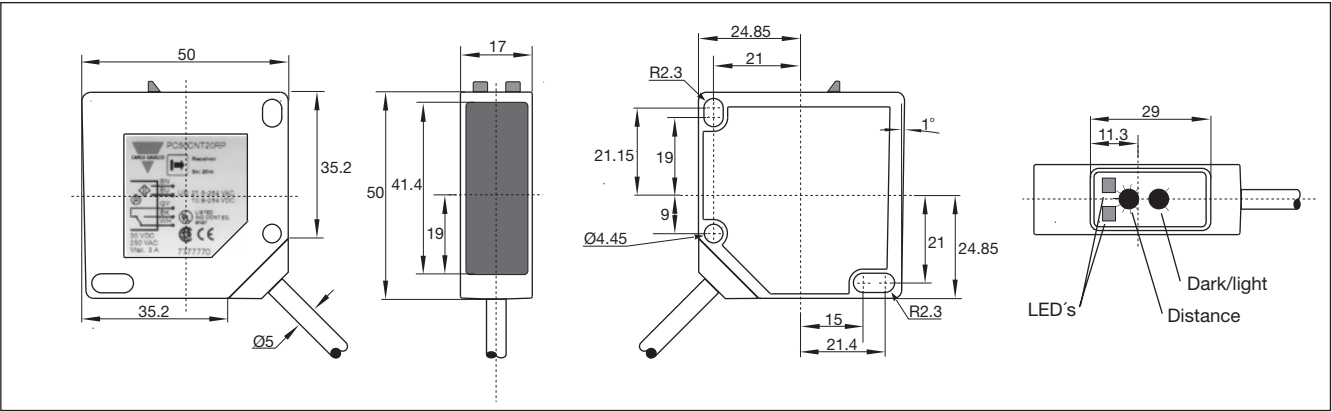
General Specifications

Environment		Rated insulation voltage	250 VAC (rms)
Overvoltage category	II (IEC 60664/60664A, 60947-1)	Housing material	
Pollution degree	3 (IEC 60664/60664A, 60947-1)	Body	PC/ABS, grey, reinforced
Degree of protection	IP 67 (IEC 60529, 60947-1)	Front glass	PC, black
Temperature		Mounting bracket	Steel, galvanized
Operating	-20° to +60°C (-4° to +140°F)	Connection	
Storage	-25° to +80°C (-13° to +176°F)	Cable receiver	PVC, grey, 2 m, 5 x 0.50 mm ²
Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)	Cable emitter	PVC, grey, 2 m, 2 x 0.34 mm ²
Shock	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)	Weight	
		Emitter	130 g
		Receiver	130 g
		Approvals	UL, CSA
		CE-marking	Yes

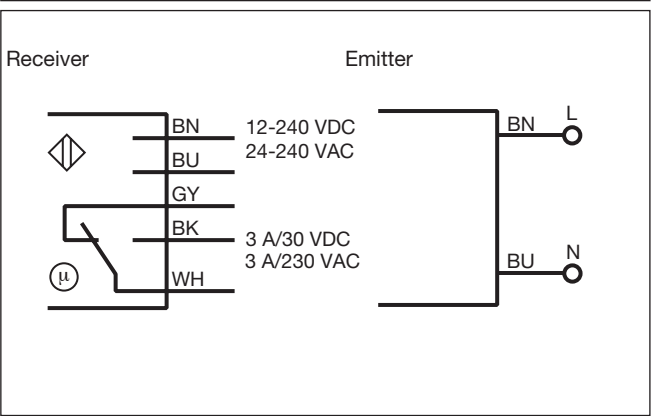
Operation Diagram



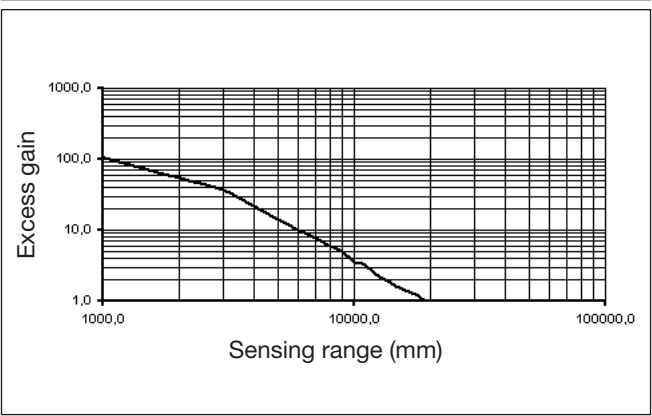
Dimensions



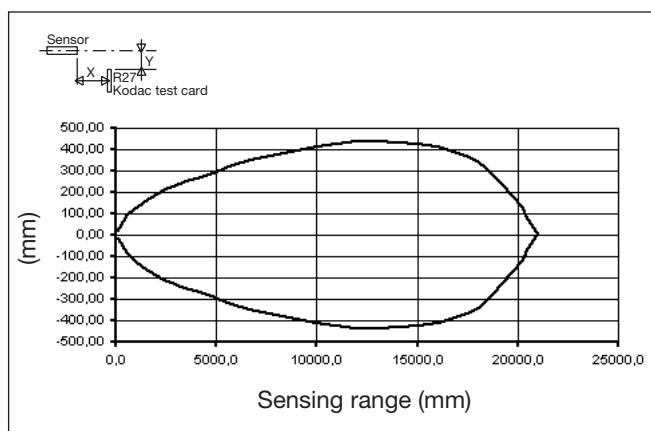
Wiring Diagrams



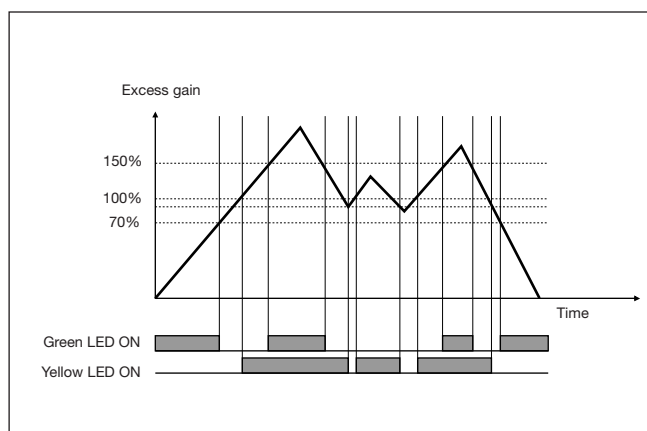
Excess Gain



Detection Diagram

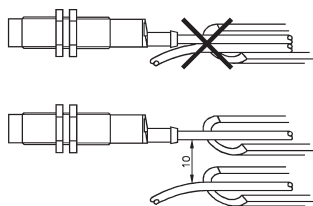


Signal Stability

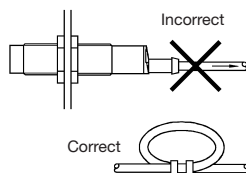


Installation Hints

To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables

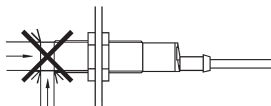


Relief of cable strain



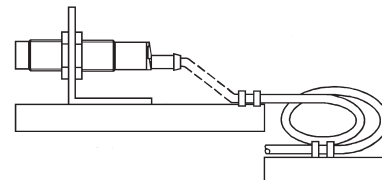
The cable should not be pulled

Protection of the sensing face



A proximity switch should not serve as mechanical stop

Switch mounted on mobile carrier



Any repetitive flexing of the cable should be avoided

Delivery Contents

- Photoelectric switch: PC50CNT..
- Installation instruction
- Mounting bracket APC50-1
- **Packaging:** Cardboard box

Accessories

- Screwdriver for adjustment: 77-001
- Connector type: CON.1A..

For further information refer to “Accessories”

