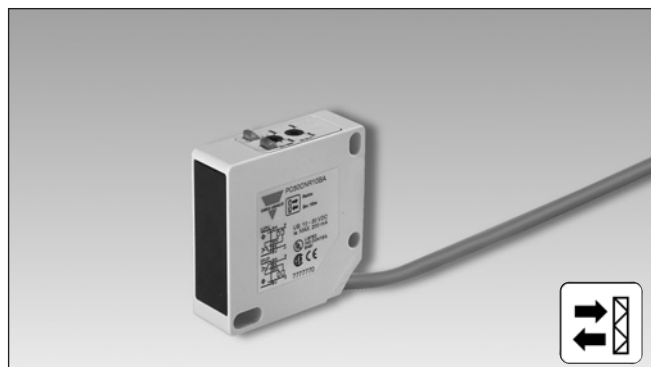


Photoelectrics

Retro-reflective, Relay Output

Type PC50CNR10RP

CARLO GAVAZZI



- Range: 10 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
- High EMC immunity



Product Description

The PC50CNR. is a general purpose retro-reflective sensor in a compact squared 17 x 50 x 50 mm reinforced PC/ABS-housing. It is useful in applications where basic sensors provide adequate

sensing performance. The long sensing range in addition to sensitivity adjustment gives a very flexible sensor. Light and dark operation is switch selectable.

Ordering Key

PC50CNR10RP

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. Make and break switching
17 x 50 x 50 mm	10 m	PC 50 CNR 10 RP

Note: Reflectors to be ordered separately

Specifications

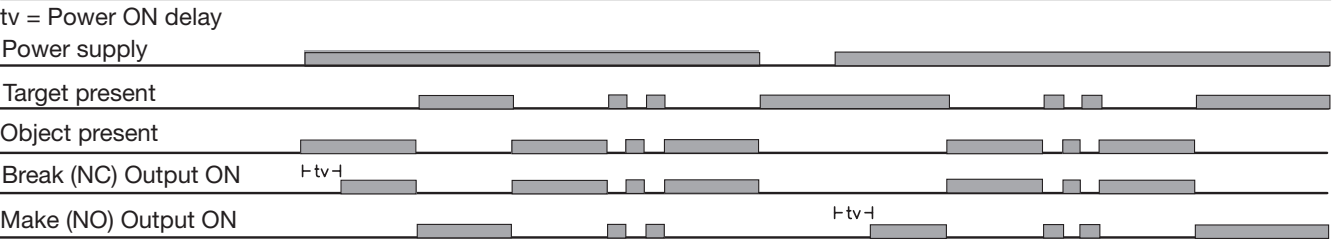
Rated operating distance (S_n)	Up to 10 m, with reflector type ER 4, ref. target	Response time	
Blind zone	Max. 10 cm	OFF-ON (t _{ON})	≤ 25 ms
Sensitivity	Adj. by single-turn pot.meter	ON-OFF (t _{OFF})	≤ 25 ms
Temperature drift	≤ 0.5%/°C	Power ON delay (t_v)	≤ 300 ms
Hysteresis (H) Differential travel	3-20%	Output function	Light or dark operation is switch selectable
Rated operational volt. (U_B)	12-240 VDC 24-240 VAC, 50 to 60 Hz	Indication function	
Rated operational power	≤ 2.0 VA (relay ON)	Output ON	LED, yellow
Output		Supply ON, signal stability	LED, green
Contact ratings		Environment	
Resistive loads	AC 1	Overvoltage category	II (IEC 60664/60664A; 60947-1)
	DC 1	Pollution degree	3 (IEC 60664/60664A; 60947-1)
Mechanical life (typical)	≥ 15 x 10 ⁶ operations	Degree of protection	IP 67 (IEC 60529; 60947-1)
Electrical life (typical)	≥ 1 x 10 ⁵ operations at 3 A/240 VAC	Temperature	
Protection	Reverse polarity, transients	Operating	-20° to +60°C (-4° to +140°F)
Light source	GaAlAs, LED, 880 nm	Storage	-25° to +80°C (-13° to +176°F)
Light type	Infrared, modulated	Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)
Sensing angle	± 2° at 1/2 range	Shock	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)
Ambient light	Max. 5'000 lux	Rated insulation voltage	250 VAC (rms)
Operating frequency	20 Hz	Housing material	
		Body	PC/ABS, grey, reinforced
		Front glass	PC black
		Mounting bracket	Steel, galvanized



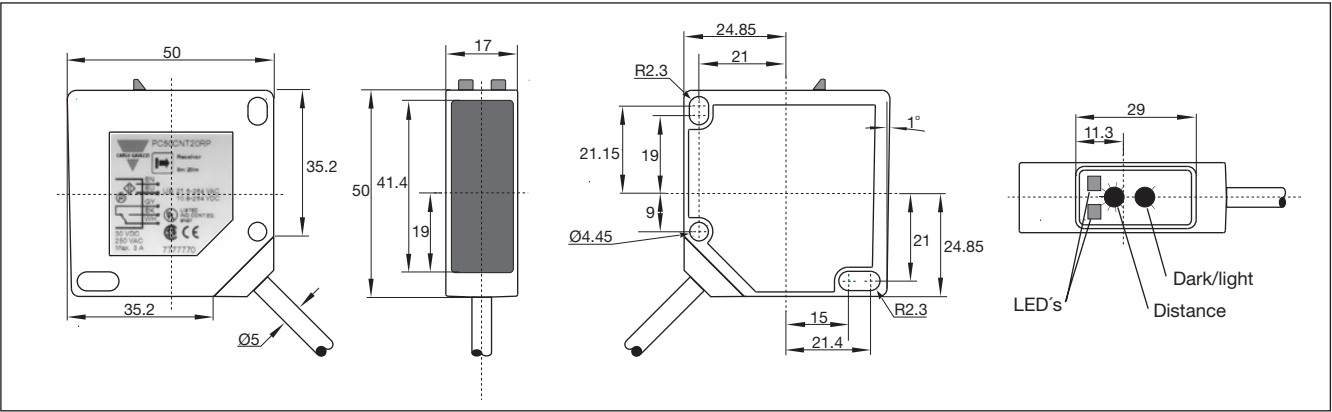
Specifications (cont.)

Connection		Approvals	UL, CSA
Cable	PVC, grey, 2 m, 5 x 0.34 mm ²	CE-marking	Yes
Weight	130 g		

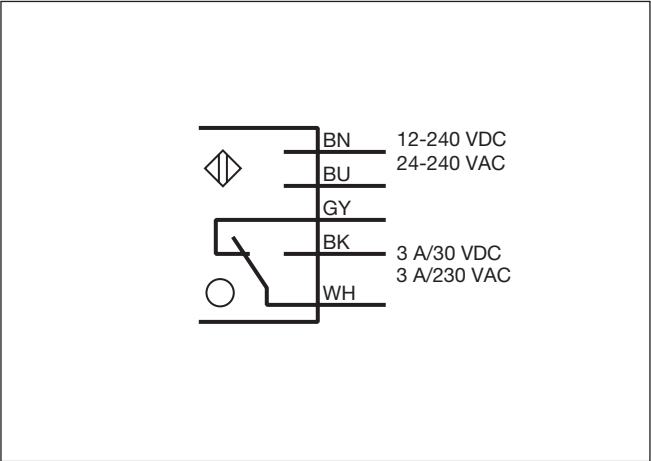
Operation Diagram



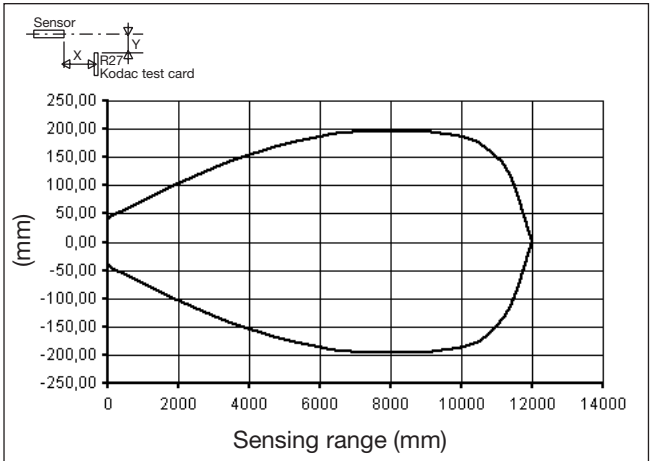
Dimensions



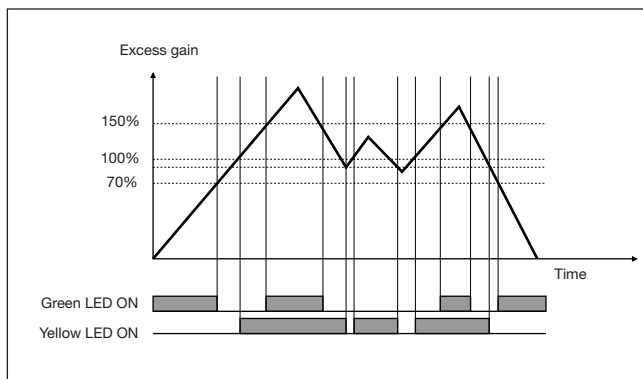
Wiring Diagram



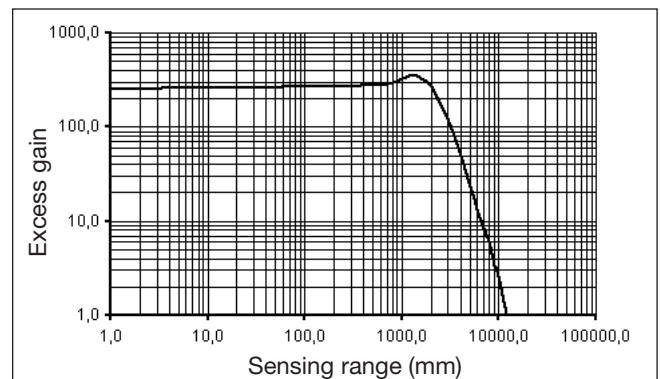
Detection Diagram



Signal Stability

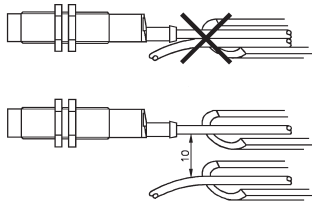


Excess Gain

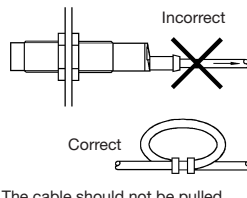


Installation Hints

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

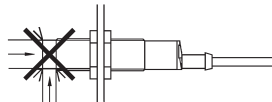


Relief of cable strain



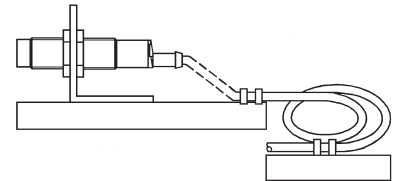
The cable should not be pulled

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: PC50CNR..
- Installation instruction
- Mounting bracket APC50-1
- **Packaging:** Cardboard box

Accessories

- Reflectors: ER-series
- Screwdriver for adjustment: 77-001

For further information refer to “Accessories”

