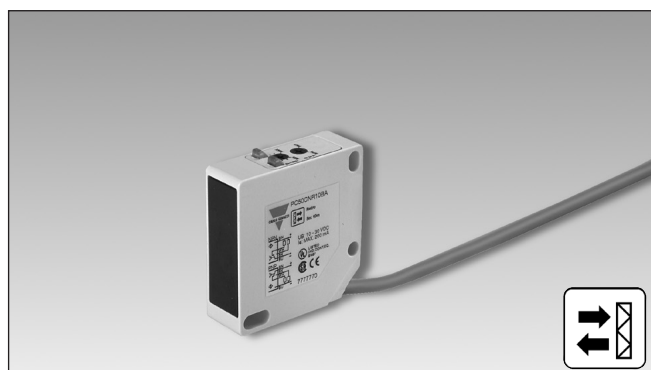


Photoelectrics

Retro-reflective, Polarized, Relay Output

Type PC50CNP06RP

CARLO GAVAZZI



- Range: 6 m
- Adjustable sensitivity
- Modulated, visible red light, polarized
- High immunity to shiny surfaces
- Supply voltage:
12 to 240 VDC and 24 to 240 VAC, 50/60 Hz
- Output: Relay 3 A, 30 VDC, 250 VAC
- Make or break switching function
- LED-indication for output ON, signal stability and supply ON
- High degree of EMC



Product Description

The PC50CNP. is a general purpose polarized 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 ade-

quate 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

PC50CNP06RP

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	6 m	PC 50 CNP 06 RP

Note: Reflectors to be ordered separately

Specifications

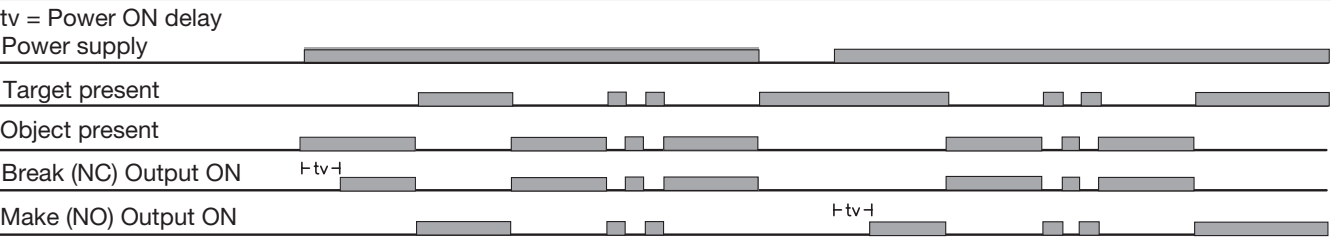
Rated operating distance (S_n)	Up to 6 m, with reflector type ER 4, ref. target	Operating frequency	20 Hz
Blind zone	Max. 20 cm	Response time OFF-ON (t _{ON}) ON-OFF (t _{OFF})	≤ 25 ms ≤ 25 ms
Sensitivity	Adj. by single-turn. pot.	Power ON delay (t_v)	≤ 300 ms
Temperature drift	≤ 0.5%/°C	Output function	Light or dark operation is switch selectable
Hysteresis (H) Differential travel	3-20%	Indication function Output ON Supply ON, signal stability	LED, yellow LED, green
Rated operational volt. (U_B)	12-240 VDC 24-240 VAC, 50 to 60 Hz	Environment Overvoltage category Pollution degree Degree of protection	II (IEC 60664/60664A; 60947-1) 3 (IEC 60664/60664A; 60947-1) IP 67 (IEC 60529; 60947-1)
Rated operational power	≤ 2.5 VA (relay ON)	Temperature Operating	-20° to +60°C (-4° to +140°F)
Output Contact ratings Resistive loads Mechanical life (typical) Electrical life (typical)	AC 1 DC 1 3 A/250 VAC 3 A/30 VDC (>10 mA/5 VDC) ≥ 15 x 10 ⁶ operations ≥ 1 x 10 ⁵ operations at 3 A/240 VAC	Storage	-25° to +70°C (-13° to +158°F)
Protection	Reverse polarity, transients	Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)
Light source Light type Sensing angle Ambient light	GaAlAs, LED, 660 nm Visible red, modulated ± 2° at 1/2 range Max. 10'000 lux	Shock	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)



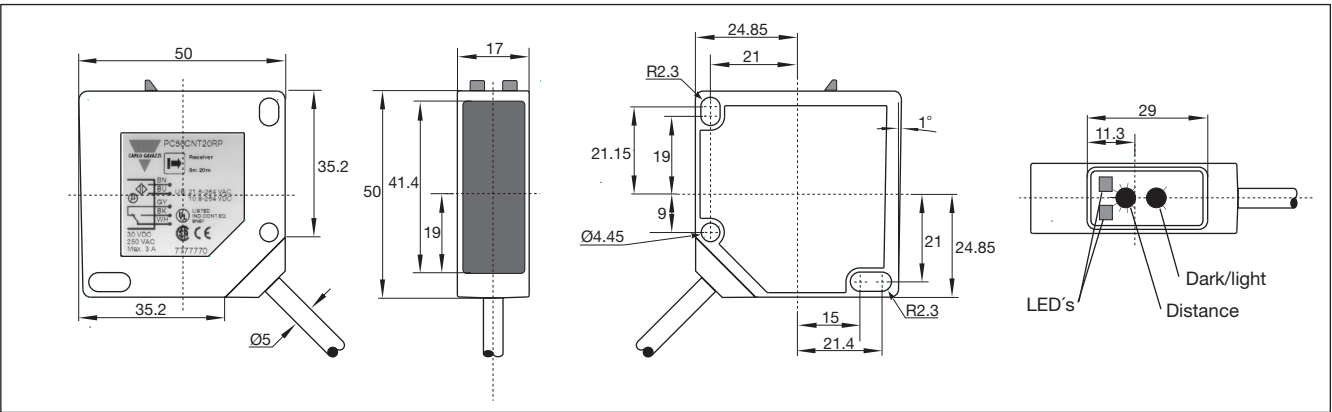
Specifications (cont.)

Rated insulation voltage	250 VAC (rms)	Cable gland	Nickel-plated brass
Housing material	PC/ABS, grey reinforced	Weight	130 g
Body	Red PMMA	Approvals	UL, CSA
Front glass	Steel, galvanized	CE-marking	Yes
Mounting bracket			
Connection			
Cable	Grey, 2 m, 4 x 0.25 mm²		

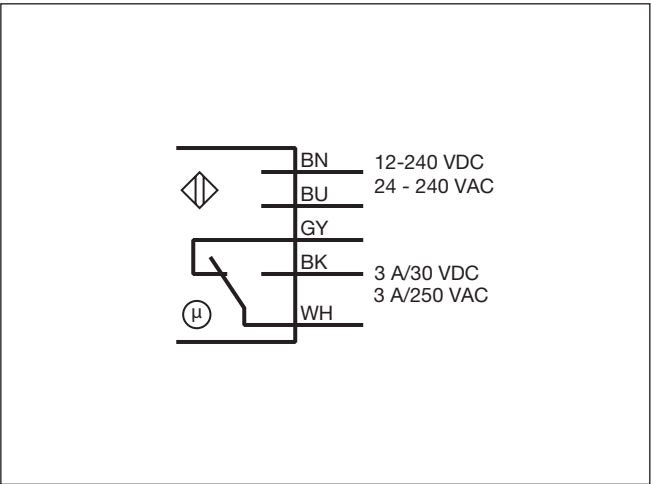
Operation Diagram



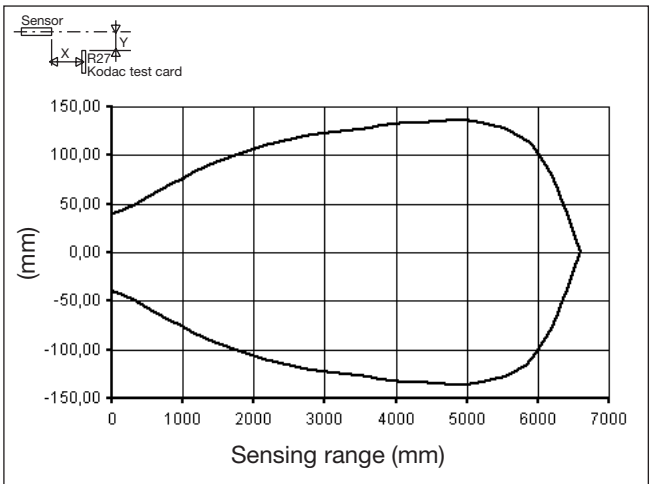
Dimensions



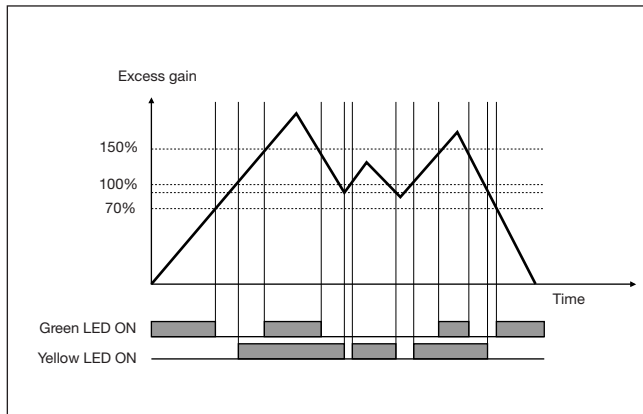
Wiring Diagram



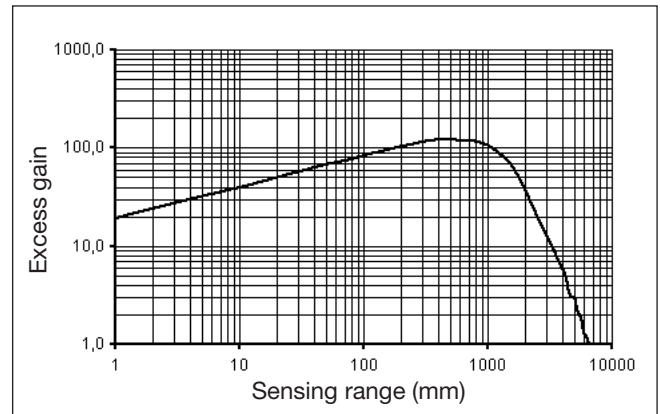
Detection Diagram



Signal Stability

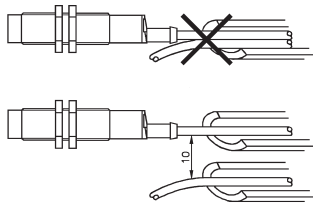


Excess Gain

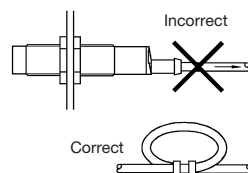


Installation Hints

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

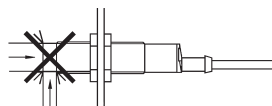


Relief of cable strain



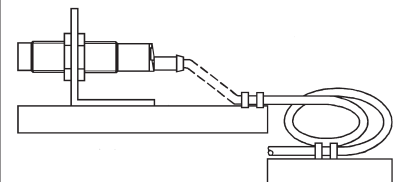
The cable should not be pulled

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: PC50CNP..
- Installation instruction
- Mounting bracket APC50-1
- **Packaging:** Cardboard box

Accessories

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

