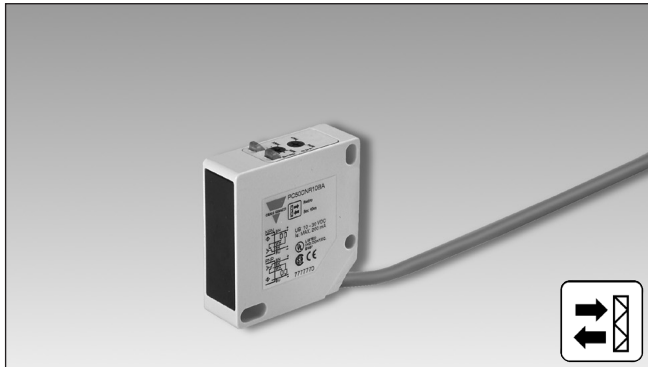


Photoelectrics Retro-reflective, Polarized, Relay Output Type PC50CNP06RP

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 AC 1 DC 1	3 A/250 VAC 3 A/30 VDC (>10 mA/5 VDC)	Storage	-25° to +70°C (-13° to +158°F)
Mechanical life (typical)	≥ 15 x 10 ⁶ operations	Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)
Electrical life (typical)	≥ 1 x 10 ⁵ operations at 3 A/240 VAC	Shock	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)
Protection	Reverse polarity, transients		
Light source	GaAlAs, LED, 660 nm		
Light type	Visible red, modulated		
Sensing angle	± 2° at 1/2 range		
Ambient light	Max. 10'000 lux		

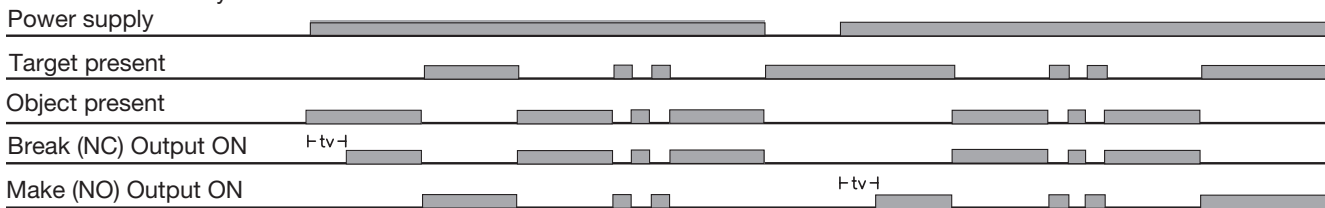


Specifications (cont.)

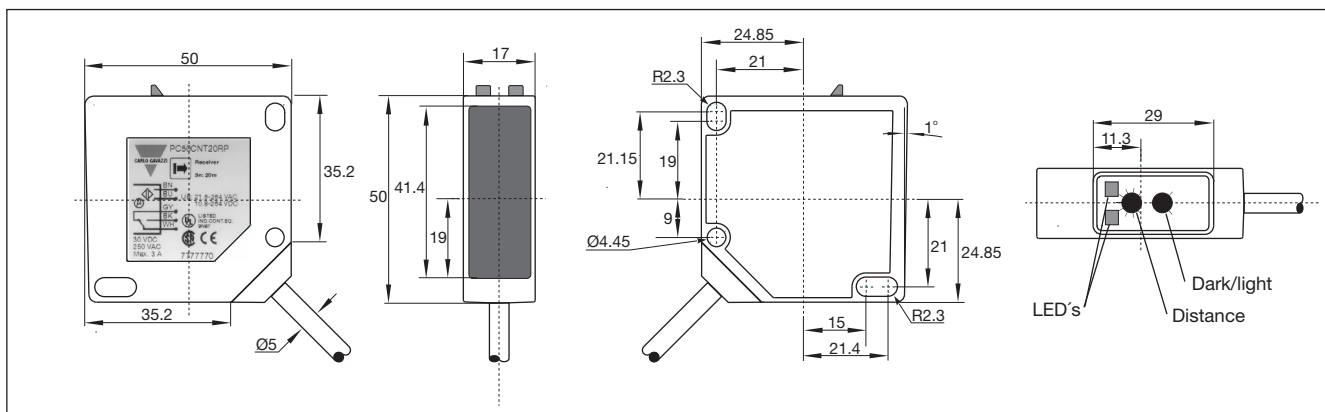
Rated insulation voltage	250 VAC (rms)	Cable gland	Nickel-plated brass
Housing material	PC/ABS, grey reinforced	Weight	130 g
Body	PC/ABS, grey reinforced	Approvals	UL, CSA
Front glass	Red PMMA	CE-marking	Yes
Mounting bracket	Steel, galvanized		
Connection			
Cable	Grey, 2 m, 4 x 0.25 mm ²		

Operation Diagram

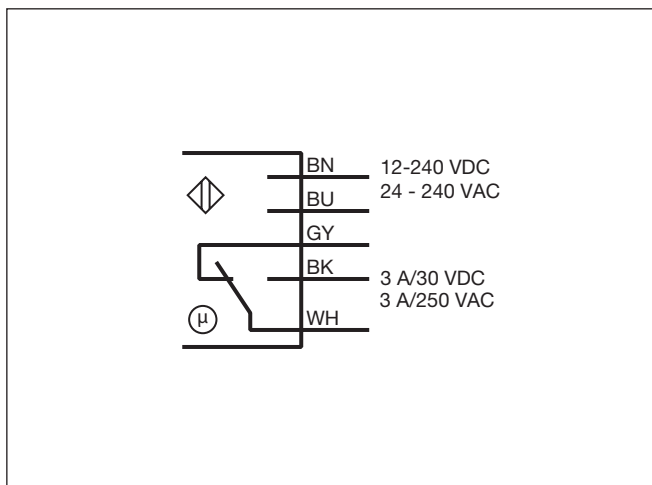
tv = Power ON delay



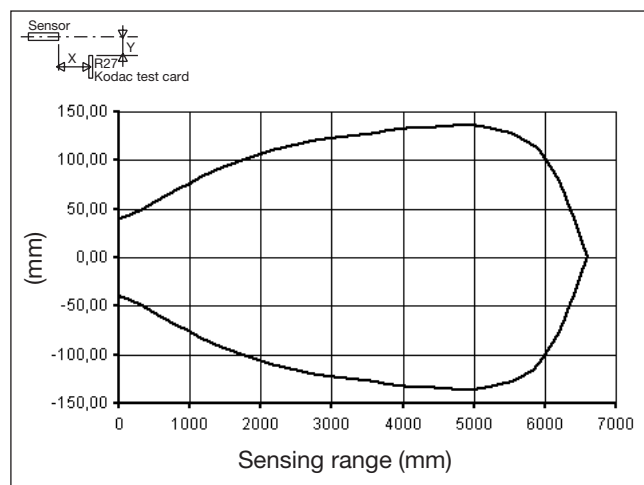
Dimensions



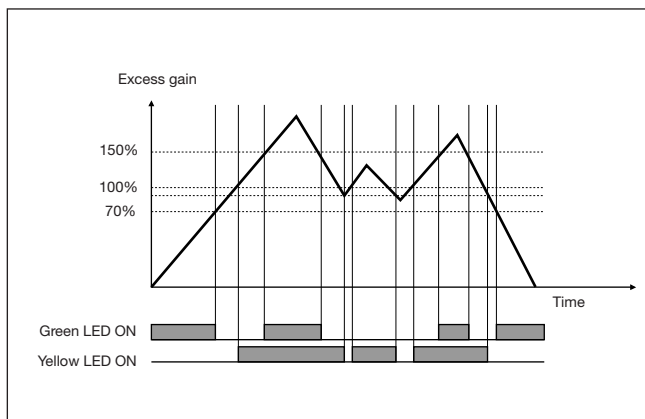
Wiring Diagram



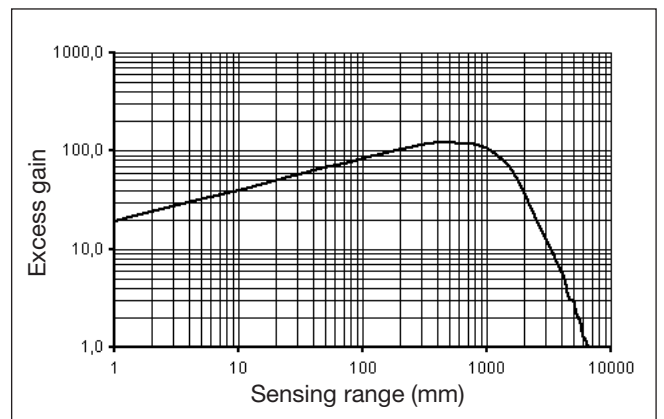
Detection Diagram



Signal Stability

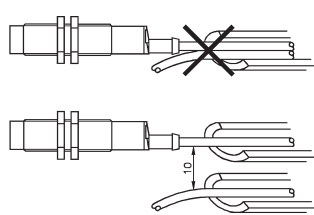


Excess Gain

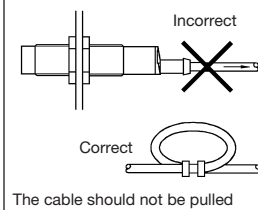


Installation Hints

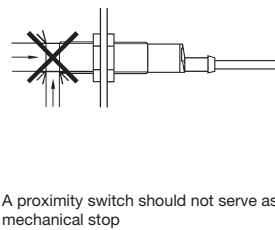
To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables



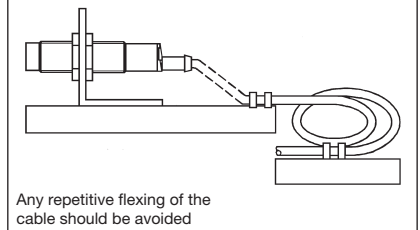
Relief of cable strain



Protection of the sensing face



Switch mounted on mobile carrier



Delivery Contents

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

Accessories

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

