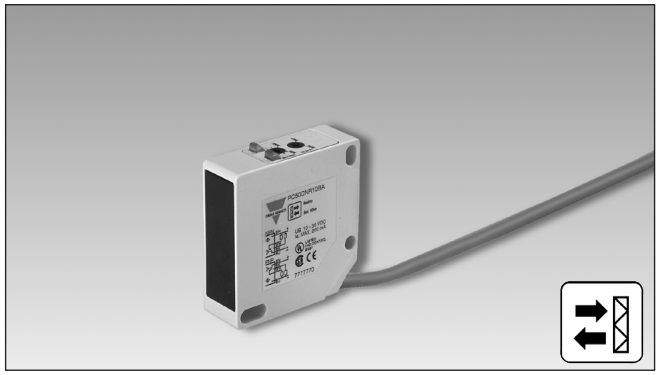
Photoelectrics
Retro-reflective, Polarized, Relay Output
Type PC50CNP06RP

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 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

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
Blind zone	Max. 20 cm
Sensitivity	Adj. by single-turn. pot.
Temperature drift	≤ 0.5%/°C
Hysteresis (H) Differential travel	 3-20%
Rated operational volt. (U_B)	12-240 VDC 24-240 VAC, 50 to 60 Hz
Rated operational power	≤ 2.5 VA (relay ON)
Output Contact ratings Resistive loads AC 1 DC 1 Mechanical life (typical) Electrical life (typical)	 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
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
Operating frequency	20 Hz
Response time OFF-ON (t_{ON}) ON-OFF (t_{OFF})	 ≤ 25 ms ≤ 25 ms
Power ON delay (t_v)	≤ 300 ms
Output function	Light or dark operation is switch selectable
Indication function Output ON Supply ON, signal stability	 LED, yellow LED, green
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)
Temperature Operating Storage	 -20° to +60°C (-4° to +140°F) -25° to +70°C (-13° to +158°F)
Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)
Shock	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)

ООО «Сенсорен Электро» +7(495)150-48-00 info@sensoren.ru

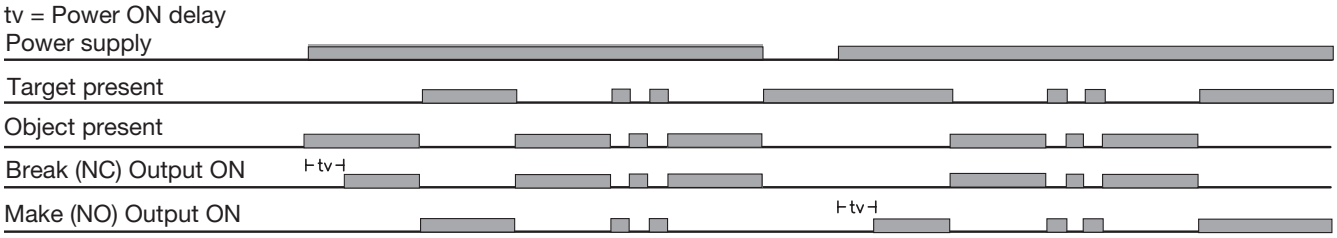
Sensoren

Specifications (cont.)

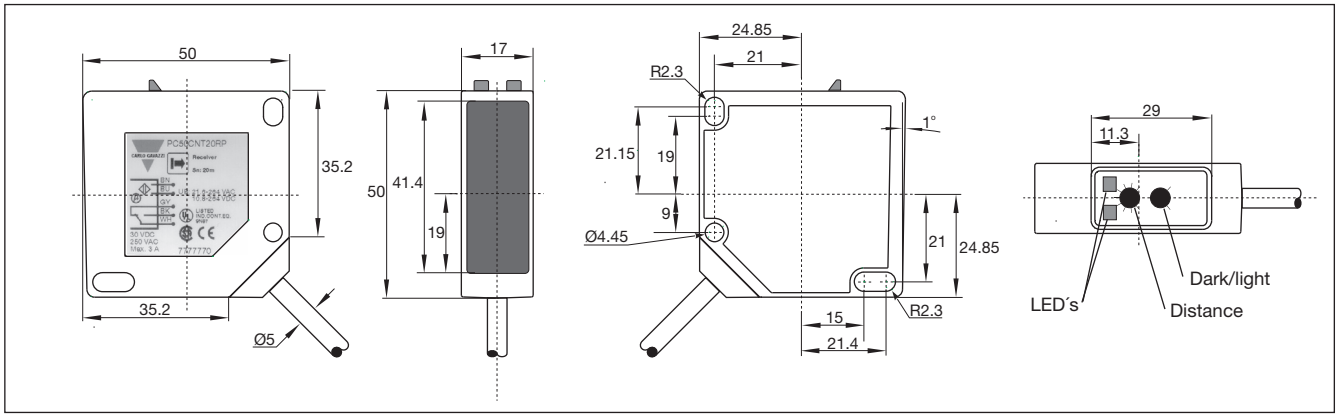
Rated insulation voltage	250 VAC (rms)
Housing material	
Body	PC/ABS, grey reinforced
Front glass	Red PMMA
Mounting bracket	Steel, galvanized

Connection	
Cable	Grey, 2 m, 5 x 0.34 mm²
Cable gland	Nickel-plated brass
Weight	130 g
Approvals	UL, CSA
CE-marking	Yes

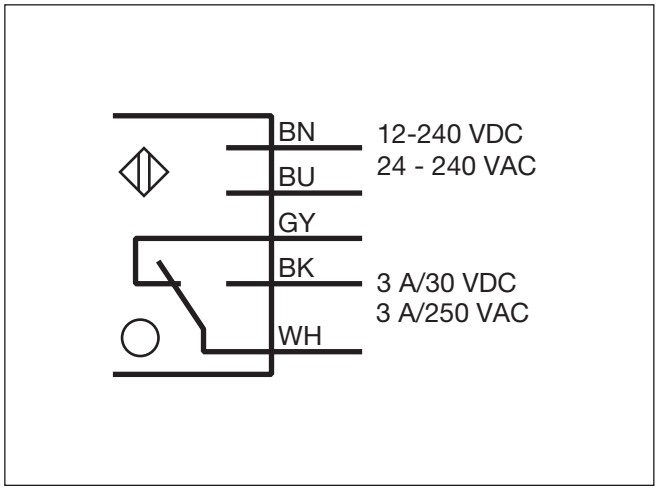
Operation Diagram



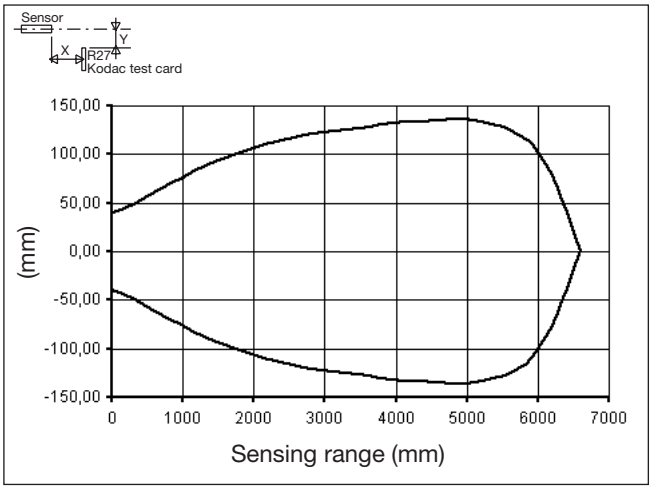
Dimensions



Wiring Diagram

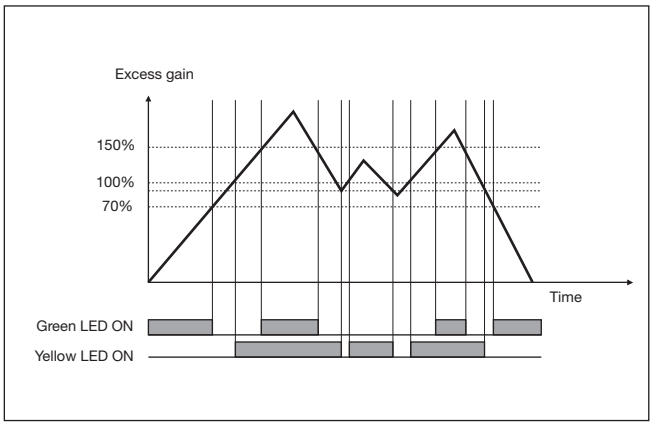


Detection Diagram

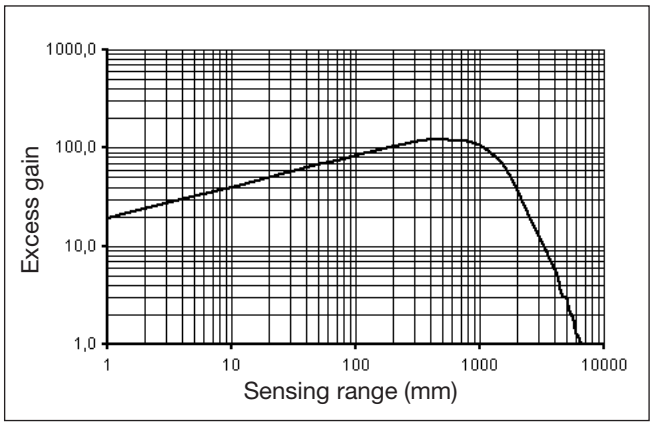


ООО «Сенсорен Электро» +7(495)150-48-00 info@sensoren.ru
Sensoren

Signal Stability

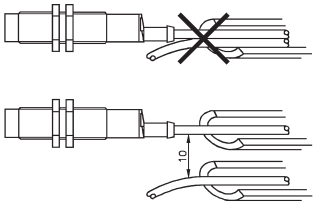


Excess Gain

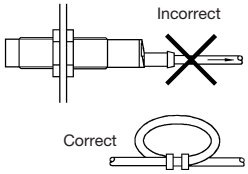


Installation Hints

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

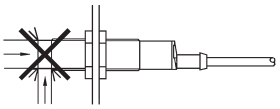


Relief of cable strain



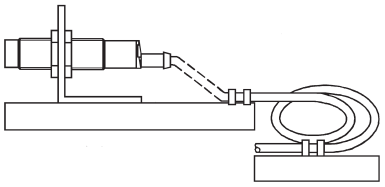
The cable should not be pulled

Protection of the sensing face



A proximity switch should not serve as mechanical stop

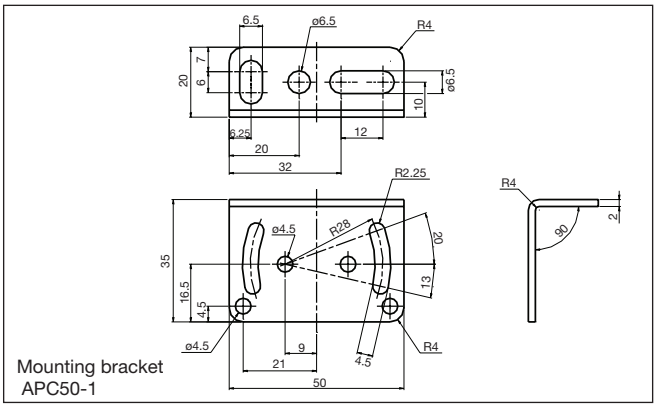
Switch mounted on mobile carrier



Any repetitive flexing of the cable should be avoided

Delivery Contents

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



Mounting bracket APC50-1

Accessories

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

ООО «Сенсорен Электро» +7(495)150-48-00 info@sensoren.ru
Sensoren