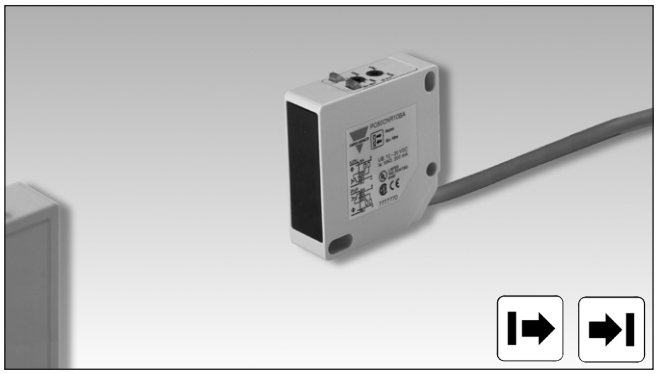
Photoelectrics
Through-beam, Relay Output
Type PC50CNT20R.

CARLO GAVAZZI



- **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. Emitter
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
Rated operational power	≤ 2.5 VA
Light source	GaAs LED, 880 nm
Light type	Infrared, modulated
Optical angle	± 2° at 1/2 range
Indication function Power supply ON	LED, green

Specifications Receiver

Rated operating dist. (S_n)		Up to 20 m
Blind zone		None
Sensitivity		Adj. single-turn pot.meter
Temperature drift		≤ 0.5%/°C
Hysteresis (H) (differential travel)		3-20%
Rated operational volt. (U_B)		12-240 VDC 24-240 VAC, 50-60 Hz
Rated operational power		≤ 2.0 VA (relay ON)
Output		
Contact ratings		
Resistive loads	AC 1	3 A/230 VAC
	DC 1	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

Protection		Reverse polarity, transients
Operating frequency (f)		20 Hz
Response time	OFF-ON (t_{ON})	≤ 25 ms
	ON-OFF (t_{OFF})	≤ 25 ms
Power ON delay (t_v)		≤ 300 ms
Output function		Light or dark operation is switch selectable
Indication function		
Output ON		LED, yellow
Supply ON, signal stability		LED, green

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

Sensoren

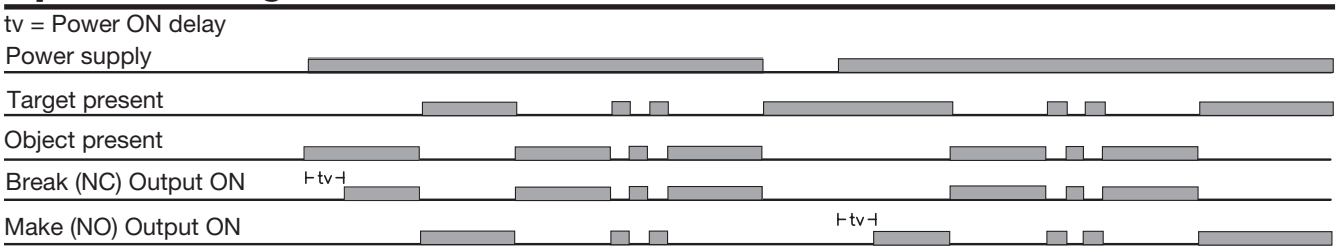
CARLO GAVAZZI

General Specifications

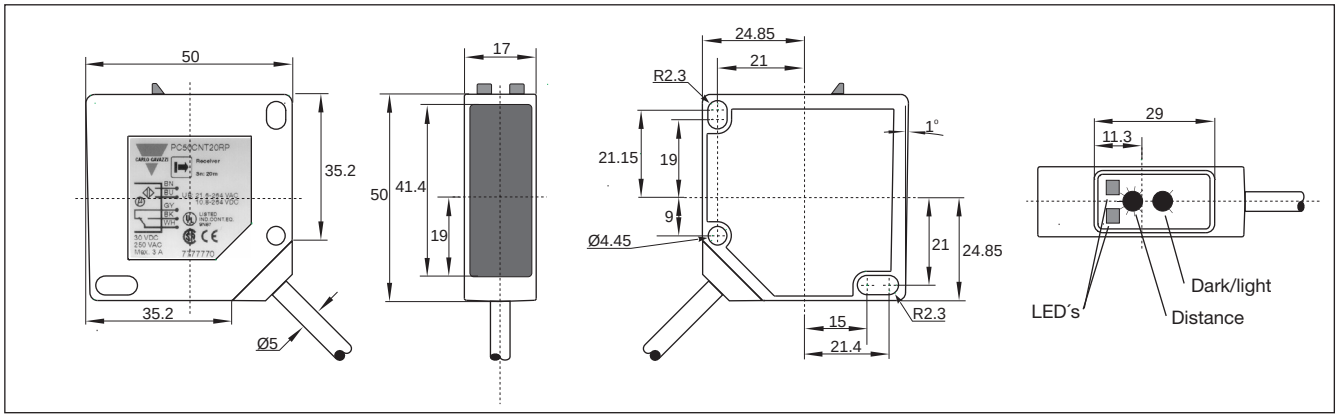
Environment	
Overvoltage category	II (IEC 60664/60664A, 60947-1)
Pollution degree	3 (IEC 60664/60664A, 60947-1)
Degree of protection	IP 67 (IEC 60529, 60947-1)
Temperature	
Operating	-20° to +60°C (-4° to +140°F)
Storage	-25° to +80°C (-13° to +176°F)
Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)
Shock	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)

Rated insulation voltage	250 VAC (rms)
Housing material	
Body	PC/ABS, grey, reinforced
Front glass	PC, black
Mounting bracket	Steel, galvanized
Connection	
Cable receiver	PVC, grey, 2 m, 5 x 0.50 mm^2
Cable emitter	PVC, grey, 2 m, 2 x 0.34 mm^2
Weight	
Emitter	130 g
Receiver	130 g
Approvals	UL, CSA
CE-marking	Yes

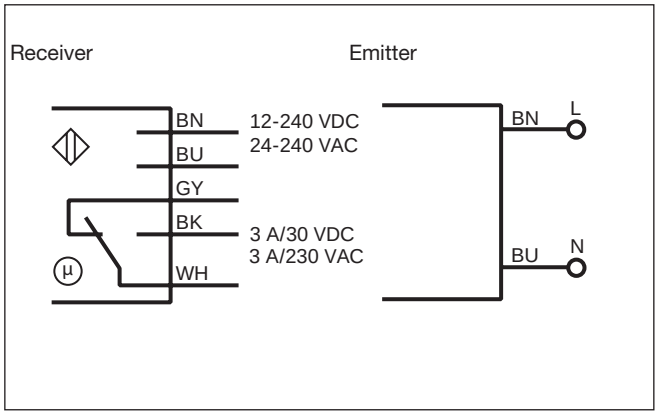
Operation Diagram



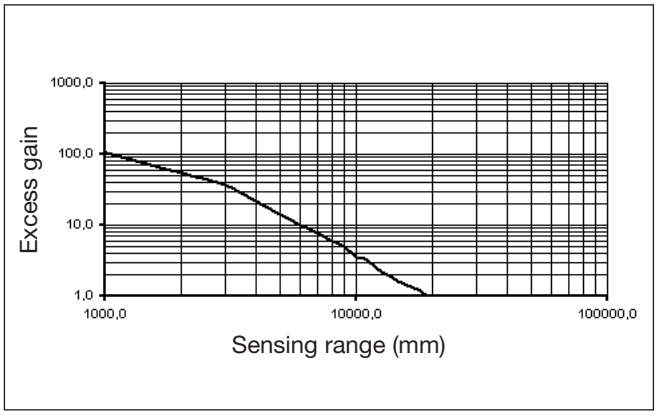
Dimensions



Wiring Diagrams



Excess Gain

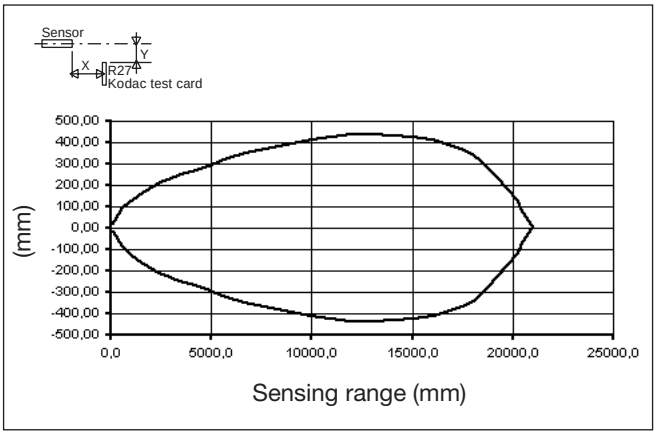


ООО «Сенсорен Электро» +7(495)150-48-00 info@sensoren.ru

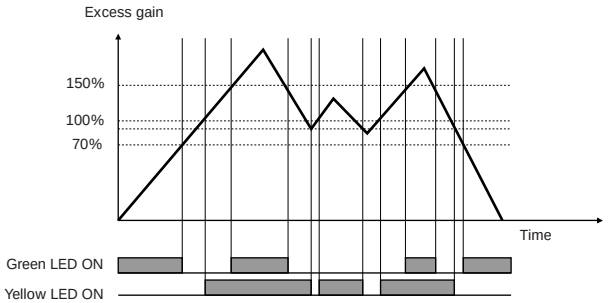
Sensoren

CARLO GAVAZZI

Detection Diagram

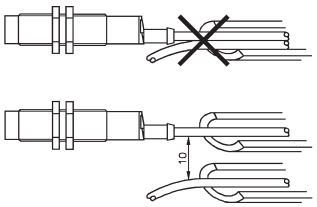


Signal Stability

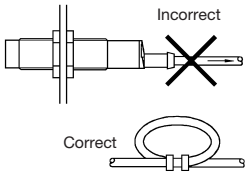


Installation Hints

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

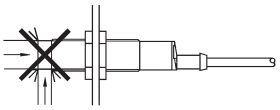


Relief of cable strain



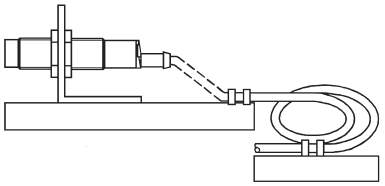
The cable should not be pulled

Protection of the sensing face



A proximity switch should not serve as mechanical stop

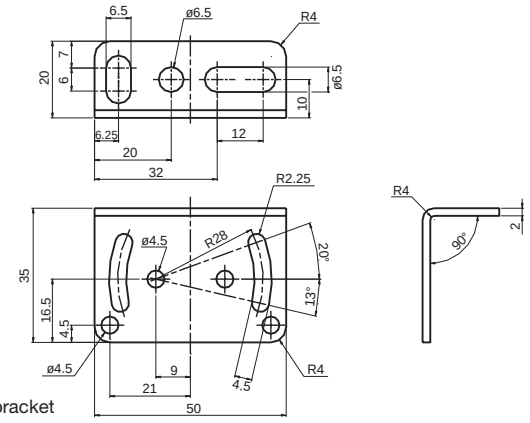
Switch mounted on mobile carrier



Any repetitive flexing of the cable should be avoided

Delivery Contents

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



Mounting bracket APC50-1

Accessories

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

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

Sensoren