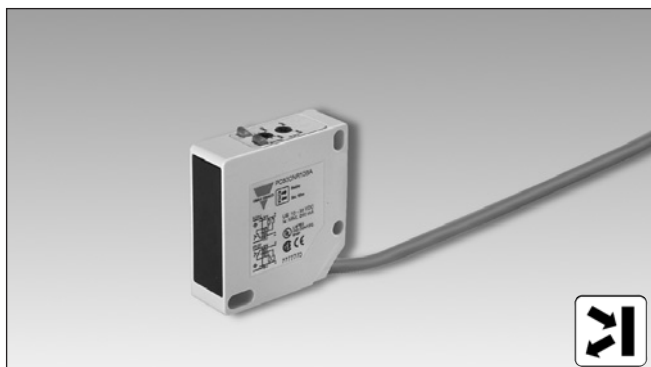


## Type PC50CND10RP



- Range: 1 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
- Protection: reverse polarity, transients
- High degree of EMC



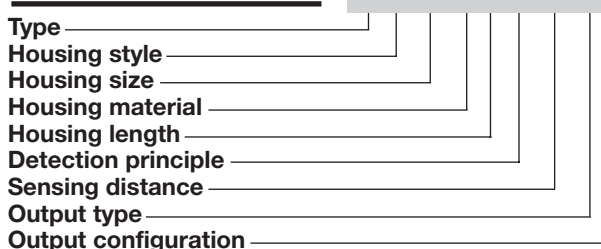
### Product Description

The PC50CND. is a general purpose diffuse-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

**PC50CND10RP**



### Type Selection

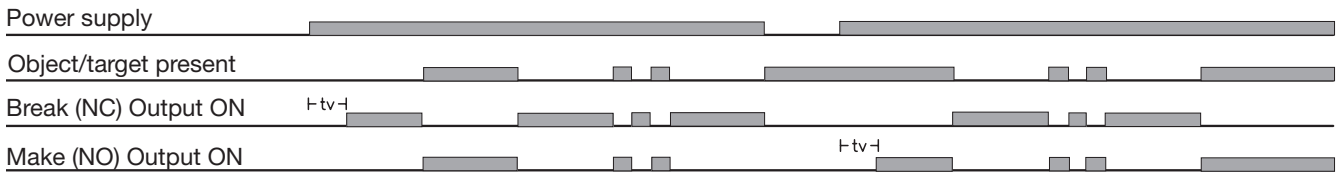
| Housing<br>W x H x D | Range<br>(S <sub>n</sub> ) | Ordering no.<br>Make and break switching |
|----------------------|----------------------------|--|
| 17 x 50 x 50 mm      | 1 m                        | PC 50 CND 10 RP                          |

### Specifications

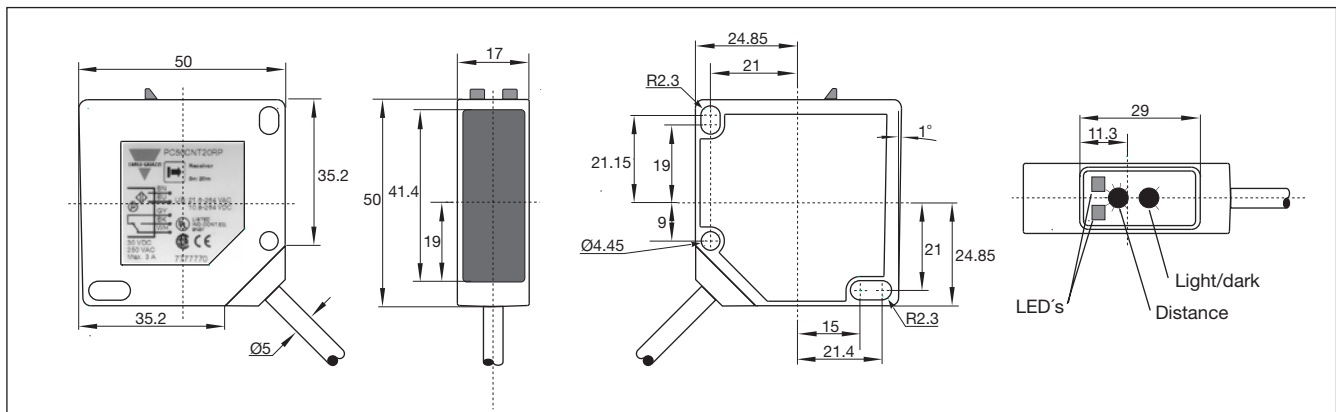
|   |   |                                       |   |
|---|---|---------------------------------------|---|
| <b>Rated operating distance (S<sub>n</sub>)</b> | Up to 1 m, reference target Kodak test card R 27, white, 90% reflectivity, 200 x 200 mm | <b>Power ON delay (t<sub>v</sub>)</b> | ≤ 300 ms                                      |
| <b>Blind zone</b>                               | Max. 10 cm  | <b>Output function</b>                | Light and dark operation is switch selectable |
| <b>Sensitivity</b>                              | Adj. by single-turn pot. meter  | <b>Indication function</b>            | Output ON<br>Supply ON, signal stability      |
| <b>Temperature drift</b>                        | ≤ 0.5%/°C   |                                       | LED, yellow<br>LED, green                     |
| <b>Hysteresis (H)</b>                           |   | <b>Environment</b>                    |   |
| Differential travel                             | 3-20%   | Overvoltage category                  | II (IEC 60664/60664A; 60947-1)                |
| <b>Rated operational volt. (U<sub>B</sub>)</b>  | 12 to 240 VDC<br>24 to 240 VAC, 50 to 60 Hz   | Pollution degree                      | 3 (IEC 60664/60664A; 60947-1)                 |
| <b>Rated operational power</b>                  | ≤ 2.0 VA (relay ON)   | Degree of protection                  | IP 67 (IEC 60529; 60947-1)                    |
| <b>Output</b>                                   |   | <b>Temperature</b>                    |   |
| Contact ratings                                 |   | Operating                             | -20° to +60°C (-4° to +140°F)                 |
| Resistive loads                                 | AC 1 3 A/250 VAC<br>DC 1 3 A/30 VDC (> 10 mA/5 VDC)                                     | Storage                               | -25° to +80°C (-13° to +176°F)                |
| Mechanical life (typical)                       | ≥ 15 x 10 <sup>6</sup> operations   | <b>Vibration</b>                      | 10 to 150 Hz, 0.5 mm/7.5 g (IEC 68-2-6)       |
| Electrical life (typical)                       | ≥ 1 x 10 <sup>5</sup> operations at 3 A/240 VAC   | <b>Shock</b>                          | 2 x 1 m & 100 x 0.5 m (IEC 68-2-32)           |
| <b>Protection</b>                               | Reverse polarity, transients  | <b>Rated insulation voltage</b>       | 250 VAC (rms)                                 |
| <b>Light source</b>                             | GaAlAs, LED, 880 nm   | <b>Housing material</b>               |   |
| <b>Light type</b>                               | Infrared, modulated   | Body                                  | PC/ABS, grey, reinforced                      |
| <b>Sensing angle</b>                            | ± 2° at 1/2 range   | Front glass                           | PC black                                      |
| <b>Ambient light</b>                            | Max. 5'000 lux  | Mounting bracket                      | Steel, galvanized                             |
| <b>Operating frequency</b>                      | 20 Hz   | <b>Connection</b>                     |   |
| <b>Response time</b>                            |   | Cable                                 | PVC, grey, 2 m, 5 x 0.34 mm <sup>2</sup>      |
| OFF-ON (t <sub>ON</sub> )                       | ≤ 25 ms   | <b>Weight</b>                         | 130 g   |
| ON-OFF (t <sub>OFF</sub> )                      | ≤ 25 ms   | <b>Approvals</b>                      | UL, CSA                                       |
|   |   | <b>CE-marking</b>                     | Yes   |

## Operation Diagram

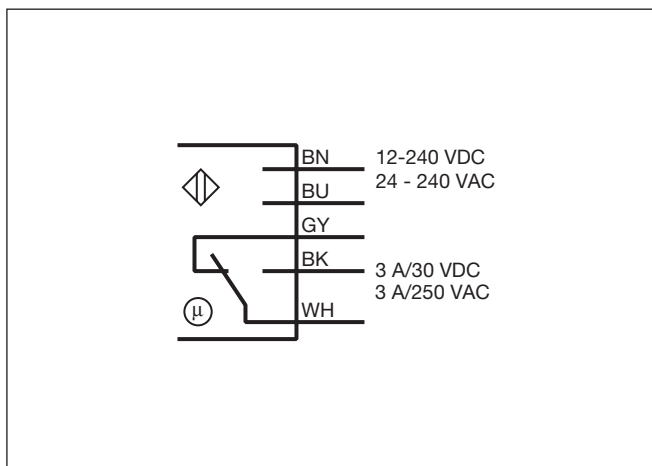
tv = Power ON delay



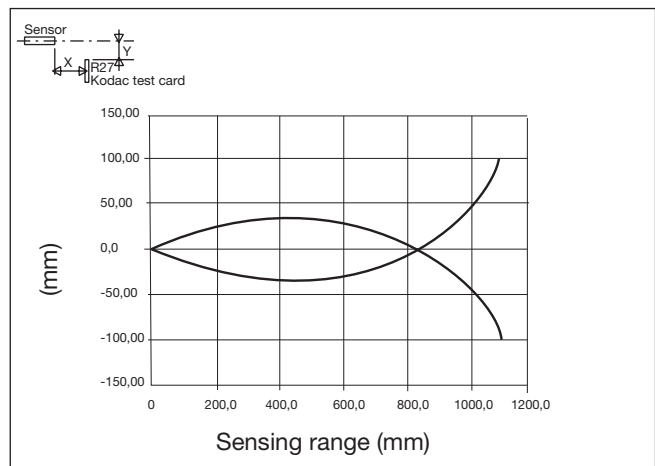
## Dimensions



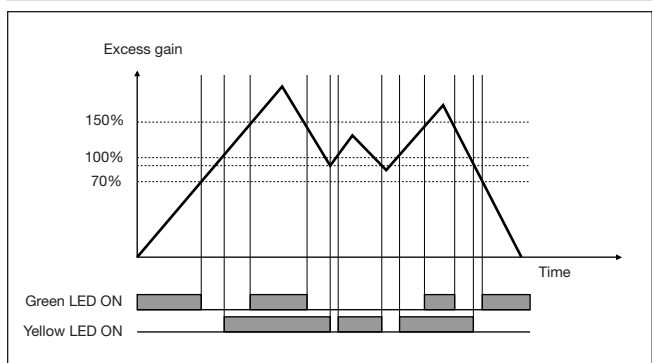
## Wiring Diagram



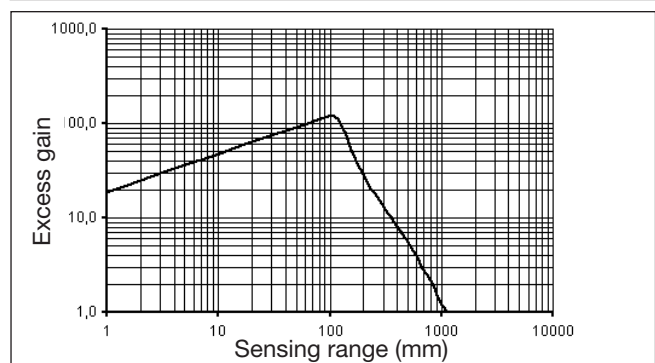
## Detection Diagram



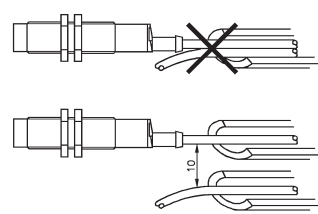
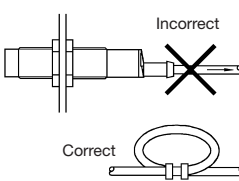
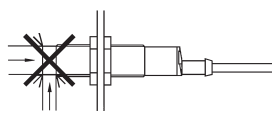
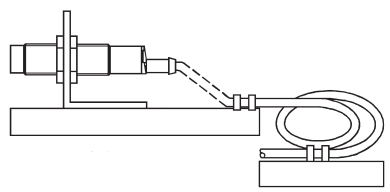
## Signal Stability



## Excess Gain



## Installation Hints

|   |   |  |  |
|---|---|--|--|
| <p>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</p>  | <p>Relief of cable strain</p>  <p>The cable should not be pulled</p> | <p>Protection of the sensing face</p>  <p>A proximity switch should not serve as mechanical stop</p> | <p>Switch mounted on mobile carrier</p>  <p>Any repetitive flexing of the cable should be avoided</p> |
|---|---|--|--|

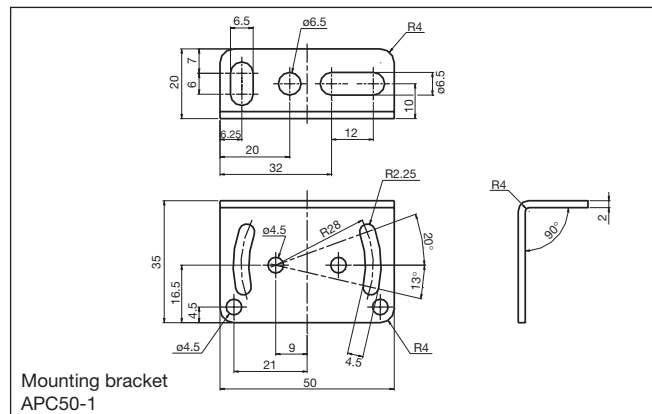
## Delivery Contents

- Photoelectric switch: PC50CND..
- Installation instruction
- Mounting bracket APC50-1
- **Packaging:** Cardboard box

## Accessories

- Screwdriver for adjustment: 77-001

For further information refer to "Accessories"



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Photoelectric Sensors](#) category:*

*Click to view products by [Carlo Gavazzi](#) manufacturer:*

Other Similar products are found below :

[E3JM-DS70R4T-US](#) [E3L2DC4](#) [E3RA-DN12 2M](#) [E3RA-DP12 2M](#) [E3S5LE4S](#) [E3S-AD38](#) [E3S-CR11 5M](#) [E3SCT11D5M](#) [E3SCT11M1J03M](#)  
[E3T-SL14R](#) [E3T-SL24 5M](#) [E3T-ST12R](#) [E3X-CN02](#) [E3X-CN11 5M](#) [E3X-CN21 10M](#) [E3ZM-B66](#) [E3ZM-CL81H 2M](#) [E3Z-T62 2M](#)  
[NJL5303R-TE1](#) [PB10CNT15PO](#) [PD60CNX20BP](#) [CX-491-P-J](#) [CX-491-Z](#) [XUM2BKCNL2T](#) [XUM2BKCNL2T](#) [XUM2BNANL2R](#) [Y92E-](#)  
[ES30M](#) [Y92E-GS08SS](#) [ZXTDS04T](#) [ZX-XC4A 4M](#) [E3E23Y2US](#) [E3JM-DS70S4-US](#) [E3RA-RN11 2M](#) [E3S5LE42M](#) [E3S-LS20XB4 5M](#)  
[E3TFD14N](#) [E3T-FD14R](#) [E3T-SL21 5M](#) [E3T-SL21M](#) [E3T-ST11R](#) [E3T-ST12 5M](#) [E3X-DA41-S-M1J 0.3M](#) [E3X-DAB6](#) [E3X-DAG8](#) [E3ZM-](#)  
[B86](#) [E3ZM-CR81 2M](#) [E3ZM-CR86](#) [E3Z-T61A-L 2M](#) [ZX-XGC2R](#) [ZX-XB1A](#)