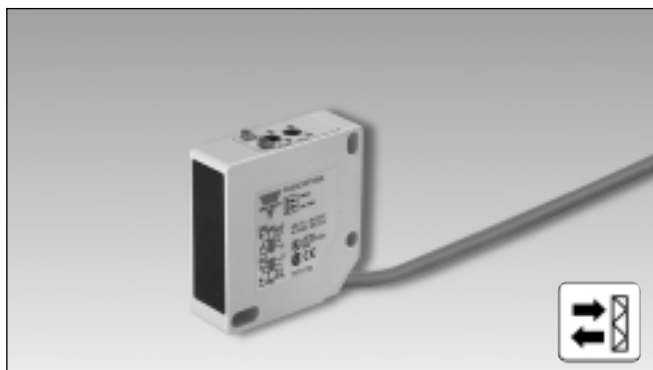


# Photoelectrics

## Retro-reflective, Relay Output

### Type PC50CNR10RP



- Range: 10 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, 230 VAC
- Make and break switching function
- LED-indication for output ON, signal stability and supply ON
- High EMC immunity

#### Preliminary data sheet

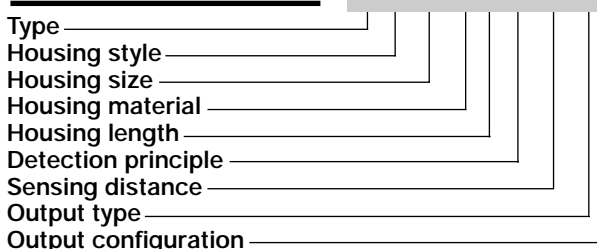
### Product Description

The PC50CNR. is a general purpose 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

**PC50CNR10RP**



### Type Selection

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

Note: Reflectors to be ordered separately

### Specifications

Rated operating distance (S <sub>n</sub> )	Up to 10 m, with reflector type ER 4, ø84, ref. target
Blind zone	Max. 20 cm
Sensitivity	Adj. by single-turn pot. meter
Temperature drift	± 0.5%/°C
Hysteresis (H) Differential travel	3-20%
Rated operational volt. (U <sub>B</sub> )	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 3 A/230 VAC DC 1 3 A/30 VDC (> 10 mA/5 VDC)
Mechanical life (typical)	≥ 15 x 10 <sup>6</sup> operations
Electrical life (typical)	≥ 1 x 10 <sup>5</sup> operations at 3 A/230 VAC
Protection	Reverse polarity, transients
Light source	GaAlAs, LED, 880 nm
Light type	Infrared, modulated
Sensing angle	± 2°
Ambient light	Max. 10'000 lux
Operating frequency	20 Hz

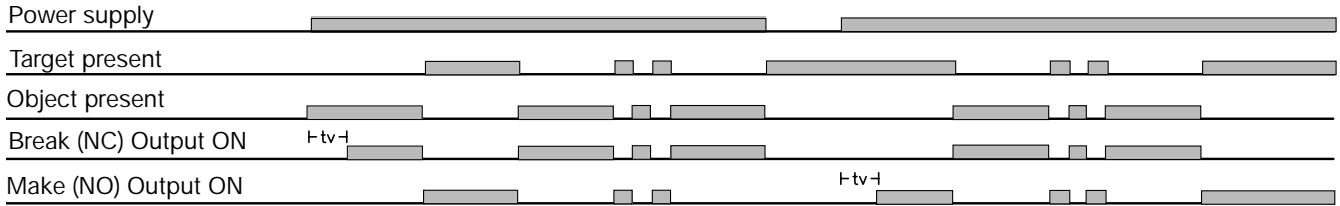
Response time	
OFF-ON (t <sub>ON</sub> )	≤ 25 ms
ON-OFF (t <sub>OFF</sub> )	≤ 25 ms
Power ON delay (t <sub>v</sub> )	≤ 300 ms
Output function	Light or dark operation is switch selectable
Indication function	
Output ON	LED, yellow
Supply ON, signal stability	LED, green
Environment	
Overvoltage category	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	230 VAC (rms)
Housing material	
Body	PC/ABS, grey, reinforced
Front glass	PC black
Mounting bracket	Steel, galvanized

### Specifications (cont.)

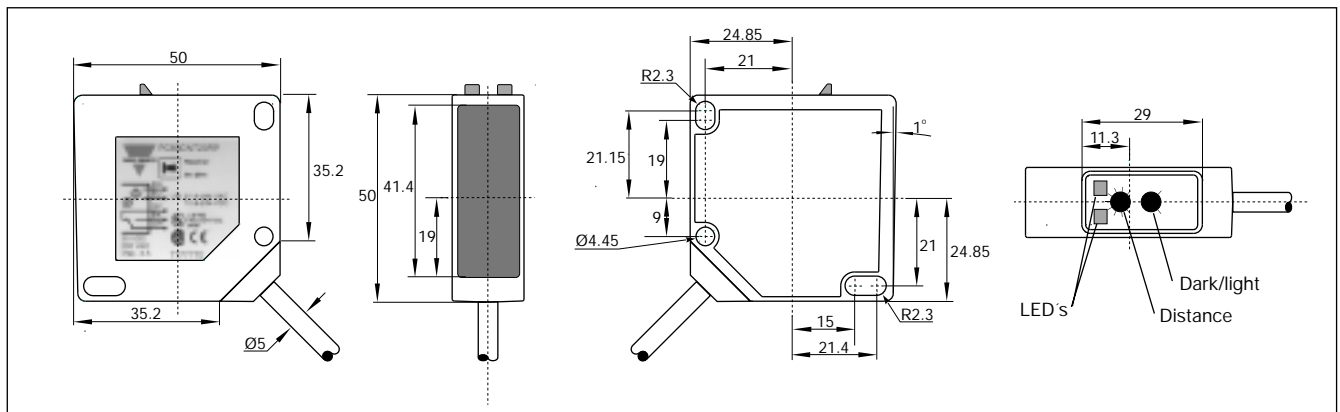
Connection Cable	Grey, 2 m, 5 x 0.34 mm <sup>2</sup>	CE-marking	Yes
Weight	130 g		

### Operation Diagram

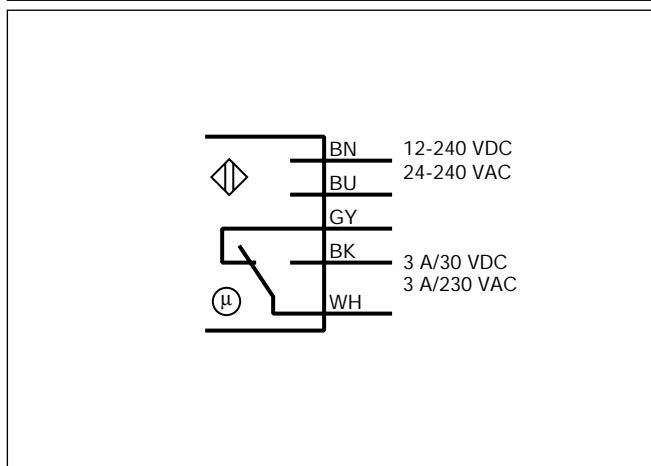
tv = Power ON delay



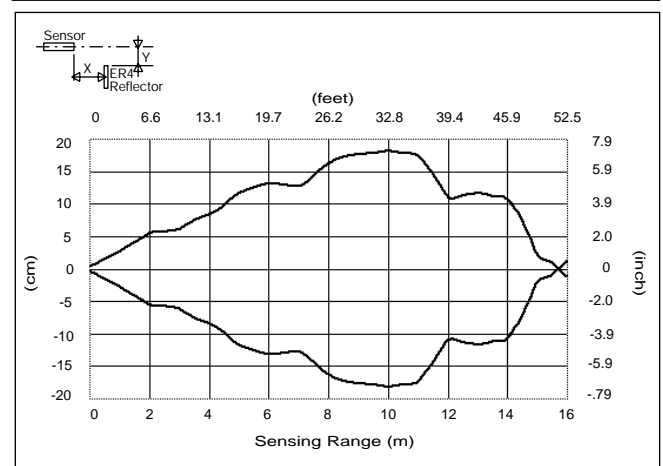
### Dimensions



### Wiring Diagram

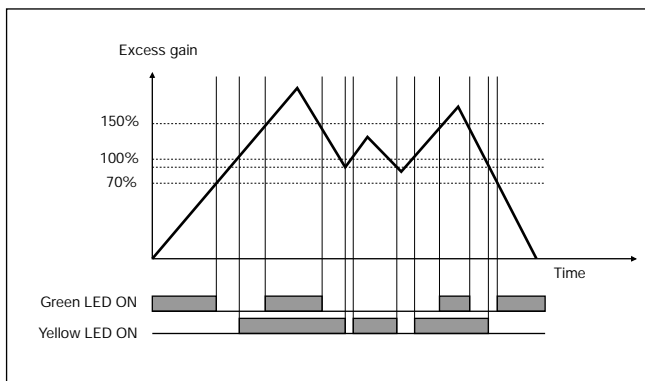


### Detection Diagram

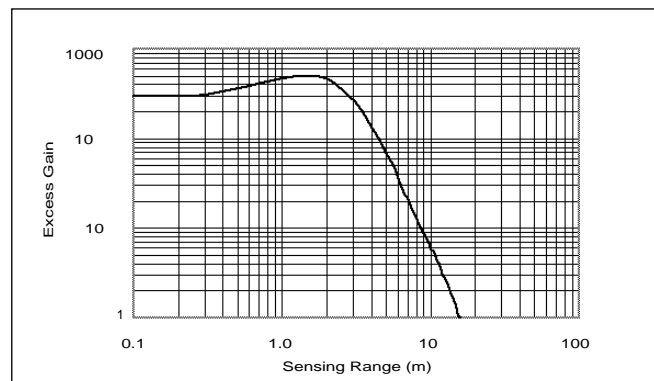




## Signal Stability



## Excess Gain



## Delivery Contents

- Photoelectric switch: PC50CNR..
- Installation instruction
- Mounting bracket APC50-1
- **Packaging:** Cardboard box

## Accessories

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

For further information refer to "Accessories"