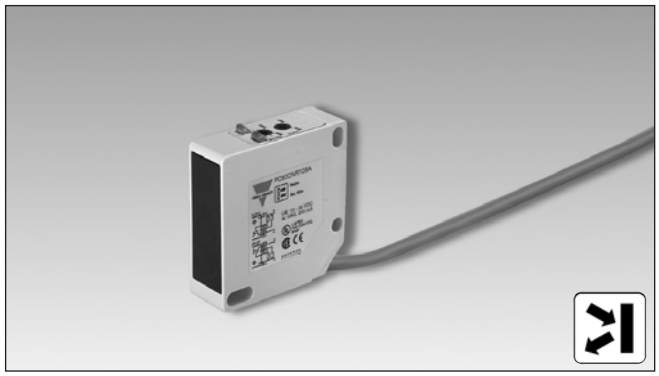
Photoelectrics
Diffuse-reflective, Relay Output
Type PC50CND20RP

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- **Range: 2 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

PC50CND20RP

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	2 m	**PC 50 CND 20 RP**

Specifications

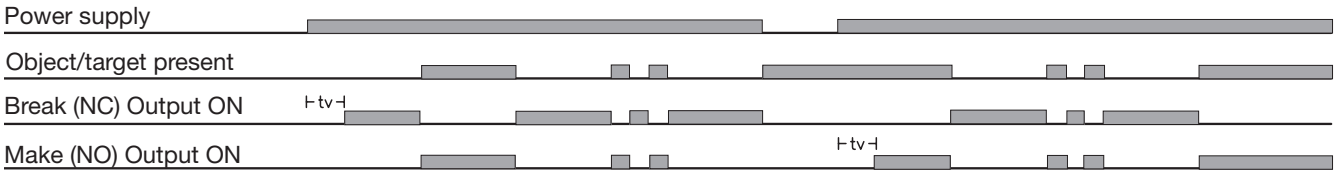
Rated operating distance (S_n)		Up to 2 m, reference target Kodak test card R 27, white, 90% reflectivity, 200 x 200 mm
Blind zone		Typ. 10 cm (max. 30 cm)
Sensitivity		Adj. by single-turn pot. meter
Temperature drift		≤ 0.5%/°C
Hysteresis (H)		
Differential travel		3-20%
Rated operational volt. (U_B)		12 to 240 VDC 24 to 240 VAC, 50 to 60 Hz
Rated operational power		≤ 2.5 VA (relay ON)
Output		
Contact ratings		
Resistive loads	AC 1	3 A/250 VAC
	DC 1	3 A/30 VDC (> 10 mA/5 VDC)
Mechanical life (typical)		≥ 15 x 10^6 operations
Electrical life (typical)		≥ 1 x 10^5 operations at 3 A/240 VAC
Protection		Reverse polarity, transients
Light source		GaAlAs, LED, 880 nm
Light type		Infrared, modulated
Sensing angle		± 2.2°
Ambient light		Max. 5'000 lux
Operating frequency		20 Hz
Response time		
OFF-ON (t_{ON})		≤ 20 ms
ON-OFF (t_{OFF})		≤ 30 ms
Power ON delay (t_v)		≤ 300 ms
Output function		Light and 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 68-2-6)
Shock		2 x 1 m & 100 x 0.5 m (IEC 68-2-32)
Rated insulation voltage		250 VAC (rms)
Housing material		
Body		PC/ABS, grey, reinforced
Front glass		PC black
Mounting bracket		Steel, galvanized
Connection		
Cable		PVC, grey, 2 m, 5 x 0.34 mm²
Weight		110 g
Approvals		UL, CSA
CE-marking		Yes

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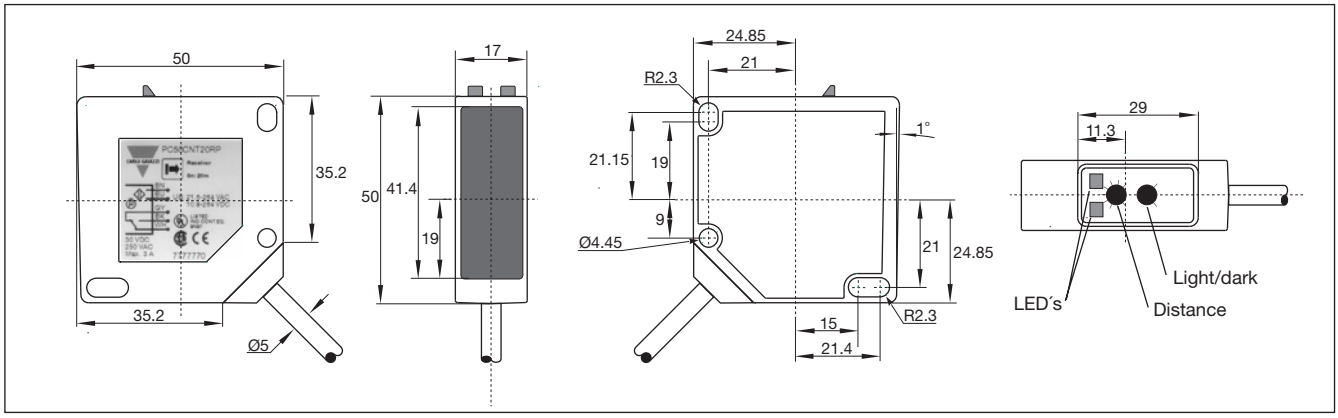
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Operation Diagram

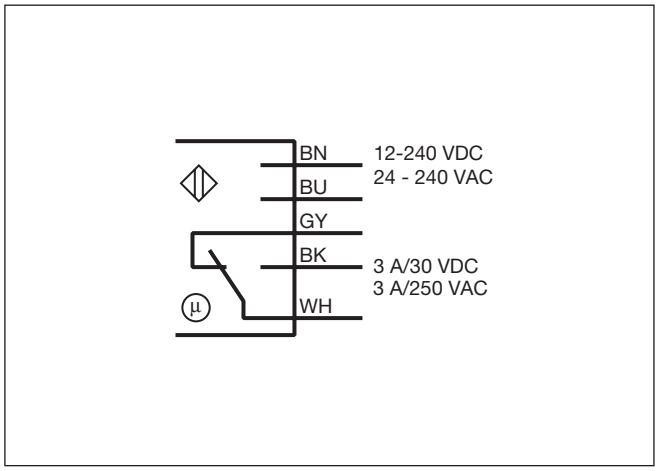
tv = Power ON delay



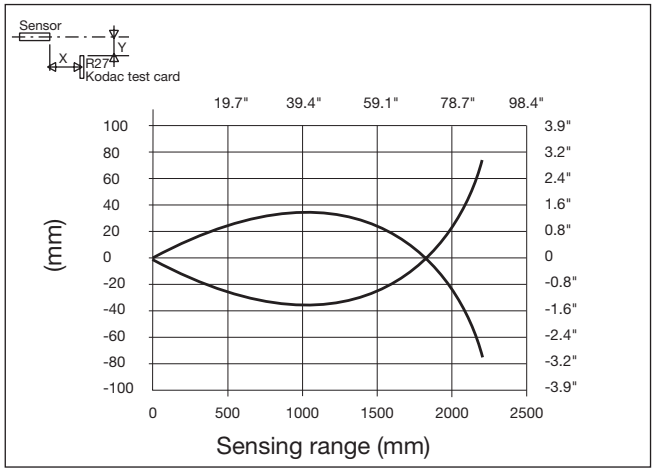
Dimensions



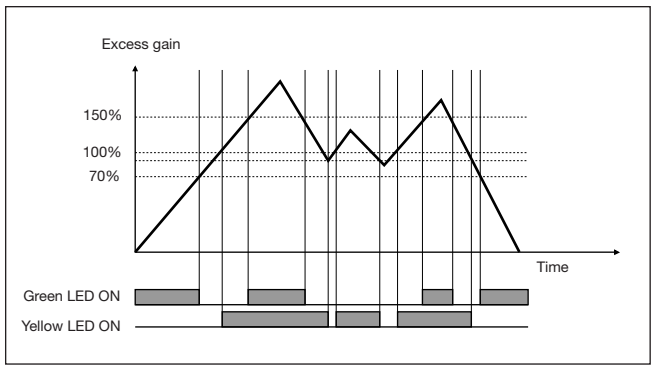
Wiring Diagram



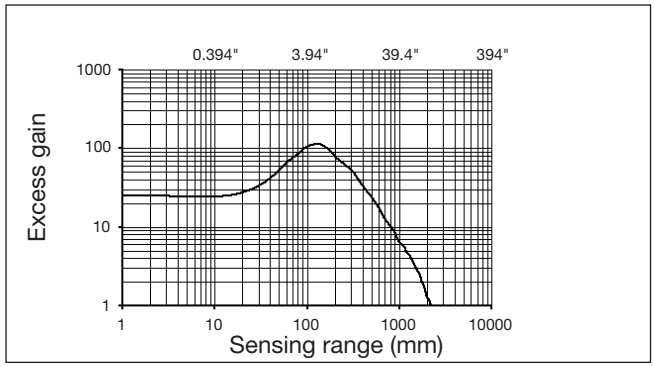
Detection Diagram



Signal Stability



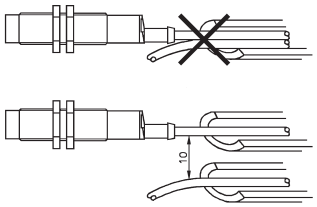
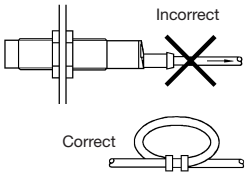
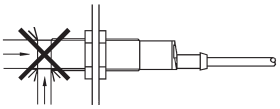
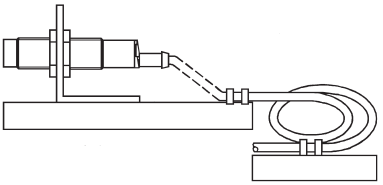
Excess Gain



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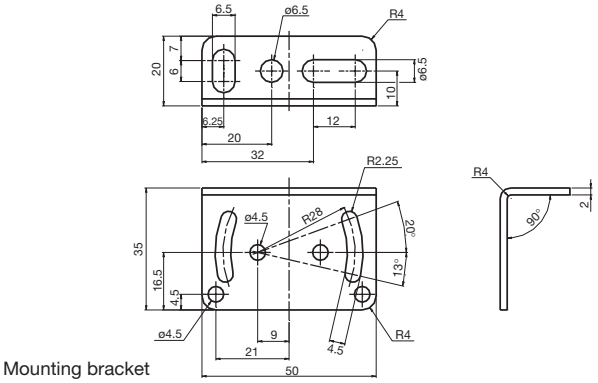
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Installation Hints

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*
	 The cable should not be pulled	 A proximity switch should not serve as mechanical stop	 Any repetitive flexing of the cable should be avoided

Delivery Contents

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



Mounting bracket APC50-1

Accessories

- Screwdriver for adjustment: 77-001

For further information refer to “Accessories”

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