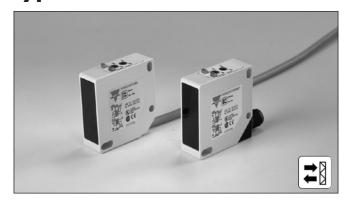
Photoelectrics Retro-reflective, Polarized, Transistor Output Type PC50CNP06BA





- Range: 6 m
- Adjustable sensitivity
- Modulated, visible red light, polarized
- Supply voltage: 10 to 30 VDC
- Output: 200 mA, NPN or PNP
- Make and break switching function selectable
- LED for output indication, signal stability and power ON
- · Protection: reverse polarity, short-circuit, transients
- Cable and plug versions
- High degree of EMC







Product Description

The PC50CNP is a family of general purpose polarized retro-reflective sensors in a compact square 17 x 50 x 50 mm reinforced PC/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. The DC types are with a transistor output and the configuration is fully programmable (NPN, PNP, NO and NC).

Ordering Key

PC50CNP06BAM1

Туре	
Housing style —	
Housing size—	
Housing material	
Housing length—	
Detection principle ——	
Sensing distance	
Output type —	
Output configuration—	
Connection type —	

Type Selection

Housing W x H x D	Range S _n	Ordering no. NPN & PNP cable Make & break switching	Ordering no. NPN & PNP plug Make & break switching
17 x 50 x 50 mm	6 m	PC 50 CNP 06 BA	PC 50 CNP 06 BAM1

Note: Reflector to be ordered separately

Specifications

Rated operating distance $(S_{\mbox{\tiny n}})$	Up to 6 m, with reflector type ER 4, ref. target	
Blind zone	Max. 20 cm	
Sensitivity	Adjustable by single-turn potentiometer	
Hysteresis (H) Differential travel	3 - 20%	
Temperature drift	≤ 0.5%/°C	
Rated operational volt. (U _B)	10 to 30 VDC (ripple included)	
Ripple (U _{rpp})	≤ 10%	
Output current Continuous (I _e) Short-time (I)	≤ 200 mA ≤ 200 mA, (max. load capacity 100 nF)	
No load supply current (I _o)	≤ 40 mA	
Minimum operational current (I _m)	0.5 mA	
OFF-state current (I _r)	Max. 100 μA	
Voltage drop (U _d)	≤ 2.5 VDC @ 200 mA	
Protection	Short-circuit, reverse polarity, transients	

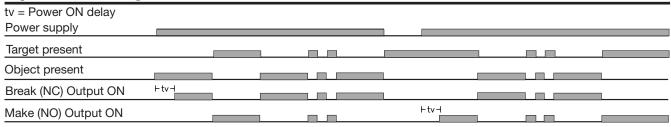
Light source	GaAlAs, LED, 660 nm		
Light type	visible red, modulated		
Sensing angle ± 2° at 1/2 range			
Ambient light	Max. 5'000 lux		
Operating frequency	500 Hz		
Response time			
OFF-ON (t _{on})	≤ 1 ms		
ON-OFF (t _{OFF})	≤ 1 ms		
Power ON delay (t _v)	≤ 300 ms		
Output function			
NPN and PNP	Switch selectable		
Complementary function	Make and break (NO + NC)		
Indication function			
Output ON	LED, yellow		
Signal stability ON and power ON	LED, green		
Environment			
Installation 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)		



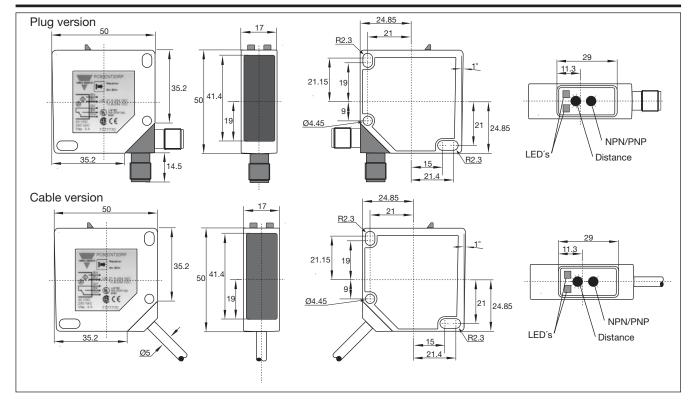
Specifications (cont.)

Vibration	10 to 150 Hz, 0.5 mm/7.5 g	Connection	
Shock	(IEC 60068-2-6) 2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)	Cable Plug (M1) Cables for plug (M1)	PVC, grey, 2 m, 4 x 0.34 mm ² PBTP, M12 x 1 CON.1A-series
Rated insulation voltage	50 VDC	Weight	110 g
Housing material		Approvals	UL, CSA
Body	PC/ABS, grey	CE-marking	Yes
Front glass	PMMA, red	<u> </u>	
Mounting bracket	Steel, galvanized		

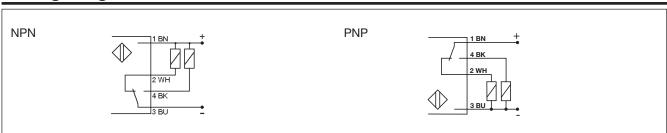
Operation Diagram



Dimensions

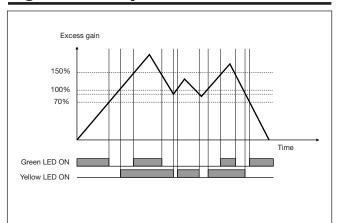


Wiring Diagrams

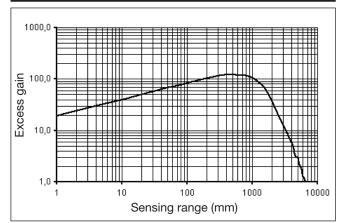


CARLO GAVAZZI

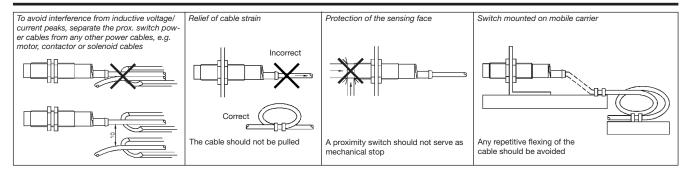
Signal Stability



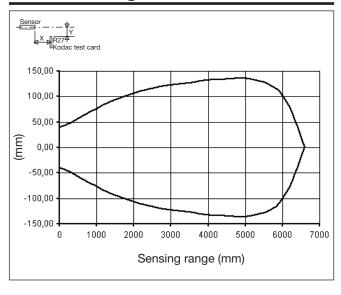
Excess Gain



Installation Hints

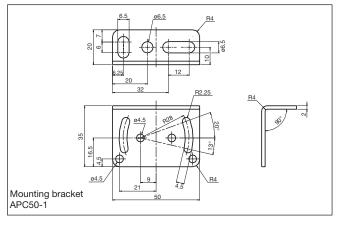


Detection Diagram



Delivery Contents

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



Accessories

- Reflectors: ER-series
- Screwdriver for adjustment: 77-001
- Connector type CON.1A.. serie.