Photoelectrics Retro-reflective Type PA18CSR30., DC, PBTP-housing





- Range: 3 m
- Modulated infrared light
- Supply voltage: 10 to 40 VDC
- Output: 200 mA NPN or PNP
- Make and break switching function, LED indication
- Protection: Reverse polarity, short circuit, transients
- High immunity to ambient light
- Cable and plug versions

Product Description

The PA18CSR.. is a family of inexpensive general purpose Retro-reflective sensors in industrial standard 18 mm cylindrical PBTP housing. They are useful for simple applications where a basic sensor provides adequate

sensing performance. The sensors are simple to use and no adjustment are necessary. The output is a 4wire complementary (NO and NC) output in NPN (current sinking) or PNP (current souring).

Ordering Key	PA18CSR30NAM1
Туре	
Housing style —	
Housing size —	
Housing material —	
Housing length —	
Detection principle ——	
Sensing distance———	
Output type —	
Output configuration —	
Connection type ———	

Type Selection

Housing diameter	Rated operating dist. (S _n)	Ordering no. NPN/Cable Make & break swit.	Ordering no. NPN/Plug Make & break swit.	Ordering no. PNP/Cable Make & break swit.	Ordering no. PNP/Plug Make & break swit.
M 18	3 m	PA18CSR30NA	PA18CSR30NAM1	PA18CSR30PA	PA18CSR30PAM1

Note: Plugs and reflectors to be ordered separately

Specifications

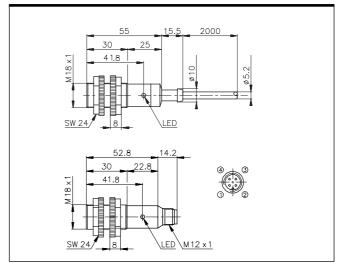
Rated operating dist. (S_n)	Up to 3 m Reflector type ER4 Ø 84 mm	Light source Light type Optical angle	GaAlAs LED, 880 nm Infrared, modulated ± 2.2°
Temperature drift	0.4%/K	Light spot size	150 mm at 2 m
Hysteresis (H) (Differential travel)	3 to 20%	Ambient light Operating frequency (f)	Max. 10,000 lux Max. 120 Hz, light/dark ratio 1:2
Rated operational volt. (U _B)	10 to 40 VDC (ripple included)	Response time	400 ····
Ripple (U _{rpp})	Max. 10%	OFF-ON (t _{ON}) ON-OFF (t _{OFF})	≤ 3.2 ms ≤ 5 ms
Output current Continuous (I _e) Short-time (I)	Max. 200 mA 200 mA, max. load capacity 100 nF	Indication function Output ON	Dark and light (complementary switch) LED, yellow
No load supply current (I _O)	Max. 20 mA @ 200 mA	Environment Overvoltage category	III (IEC 60664/60664A; 60947-1)
Min. operational current (I _m)	0.5 mA	Pollution degree	3 (IEC 60664/60664A; 60947-1)
OFF-state current (I _r)	Max. 100 μA	Degree of protection	IP 67 (IEC 60529; 60947-1)
Voltage drop (U _d)	Max. 2.5 V	Temperature	
Protection	Reverse polarity, short circuit overload, transients	Operating Storage	-20° to +60°C (-4° to 140°F) -30° to +70°C (-22° to 158°F)
Transient voltage	1 kV/0.5 J	Vibration	10 to 150 Hz, 0.5 mm/7.5 g
Power ON delay (t _v)	Typ. 100 ms	Shock	(IEC 60068-2-6) 2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)



Specifications (cont.)

Dielectric voltage	600 VAC (IEC 60364-4-41)		
Housing material			
Body	PBTP, grey thermoplastic		
	polyester		
Front	Luran®, black		
Cable end	Polyester, black		
Nuts	Reinforced nylon		
Connection			
Cable	Grey, 2 m, 4 x 0.35 mm ² ,		
	oilproof PVC		
Plug	M12 x 1		
Cables for plug (M1)	CON.1Aseries		
Weight			
Cable version	100 g		
Plug version	17 g		
Approvals	UL		
CE-marking	Yes		

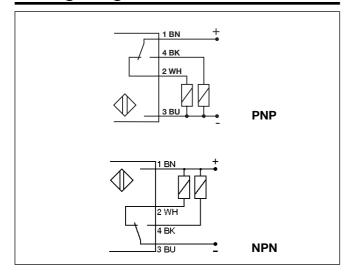
Dimensions



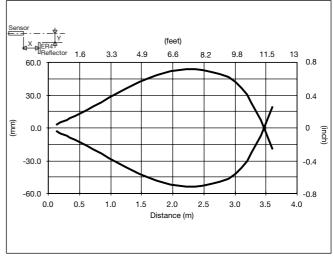
Operation Diagram

Power supply				
Object present, light beam interrupted				
Output ON: Break switching (NC), WH (2)			⊦TV-l	
Make switching (NO), BK (4) http://		1		

Wiring Diagrams



Detection Diagram



Delivery Contents

- Photoelectric switch: PA18CSR30..
- 2 nuts
- Packaging: plastic bag

Accessories

- · Reflectors: ER series
- Plugs: CON.1A-.. serie
- Option: Fibre-optics
- MB18A
- APA18-RAR

For further information refer to "Accessories"