### Photoelectrics Retro-reflective Type PA18CLR30T, AC, PBTP housing



Ordering no.

Break switching

PA18CLR30TCM6

SCR/Plug



- Range: 3 m
- Modulated infrared light
- Supply voltage: 20 to 250 VAC
- Output: 500 mA SCR
- Make and break switching functions
- LED output indication
- High immunity to ambient light
- Cable and plug versions

#### **Product Description**

The PA18CLR.. 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 2wire NO or NC thyristor (SCR) output.

Ordering no.

PA18CLR30TOM6

SCR/Plug Make switching

Ordering Key	PA18CLR30TOM6			
Type Housing style Housing size Housing material Housing length Detection principle Sensing distance Output type Output configuration Connection type				

Ordering no.

**Break switching** 

PA18CLR30TC

SCR/Cable

### **Type Selection**

Housing diameter	Rated operating dist. (S <sub>n</sub> )	Ordering no. SCR/Cable Make switching			
M 18	3 m	PA18CLR30TO			

Note: Plugs and reflectors to be ordered separately

#### **Specifications**

Rated operating dist. (S <sub>n</sub> )	Up to 3 m Ref. reflector type ER4, Ø 84 mm		
Temperature drift	0.4%/K		
Hysteresis (H) (Differential travel)	3 to 20%		
Rated operational volt. (U $_{\scriptscriptstyle B})$	20 to 250 VAC, 45 to 65 Hz		
Output current (AC 12, AC 140)         Continuous (Ie)         Short-time (I)         Min. operational current (Im)         OFF-state current (Ir)         Voltage drop (Ud)         Protection	<ul> <li>≤ 500 mA</li> <li>≤ 3 A, max. 20 ms</li> <li>10 mA</li> <li>&lt; 5 mA, typ. 2.6 mA</li> <li>≤ 10 VAC, typ. 7 VAC</li> <li>Transients</li> </ul>		
Transient voltage Light source Light type Optical angle Light spot size Ambient light	1 kV/0.5 J GaAlAs LED, 880 nm Infrared, modulated ±2.2° 150 mm at 2 m Max. 10,000 lux		

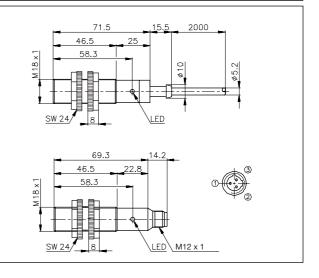
<b>Operating frequency</b> (f)	Max. 20 Hz, light/dark ratio 1:2
Response time	
OFF-ON (t <sub>on</sub> )	≤ 20 ms
ON-OFF (t <sub>off</sub> )	$\leq$ 30 ms
Power ON delay (t <sub>v</sub> )	Typ. 100 ms
Indication function Output ON	Dark (NC) or light (NO) switching LED, yellow
Environment	
Overvoltage category	III (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	-30° to + 70°C (-22° to 158°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)
Dielectric voltage	1600 V (IEC 60364-4-41)



# Specifications (cont.)

Housing material	
Body	PBTP grey thermoplastic
Front	polyester Luran <sup>®</sup> . black
	,
Cable end	Polyester, black
Nuts	Reinforced nylon
Connection	
Cable	Grey, 2 m, 2 x 0.5 mm <sup>2</sup> ,
	oilproof PVC
Plug	M12 x 1
Cables for plug (M6)	CON.6A serie
Weight	
Cable version	105 g
Plug version	22 g
Approvals	UL
CE-marking	Yes
-	

### Dimensions



## **Operation Diagram**

Power supply					
Object present, light beam interrupted		1			
Output ON: Break switching (NC)		1		⊦Tv⊣	
Make switching (NO)	+Tv +		1		