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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# Photoelectrics Retro-reflective, Polarized, Relay Output Type PMP12..





- Range: 12 m
- Modulated, visible light, polarized
- · Make or break switching function (switch selectable)
- LED-indication for target detected
- Multi supply voltage:
   12 to 240 VDC and
   24 to 240 VAC, 50/60 Hz
- 25 x 65 x 81 mm reinforced PC/ABS- housing, IP 67
- NO and NC output
- High EMC immunity
- UL, CSA and CE







### **Product Description**

The PMP12... is a powerfull polarized retro reflective sensor. The sensor is designed to meet the hash requirements in industrial environments. With a sensing distance at 12 m the sensor is usefull in applications where dust and weather conditions will influence on the sensing distance. The sensor is made in a strong glass reinforced PC/ABS housing with two cable glands for easy connection.

### **Ordering Key**

PMP12RG

Type family —	
Type	
Sensing distance (m)	
Output relay	
Cable gland type —	

#### **Type Selection**

Housing W x H x D	Range (S <sub>n</sub> )	Ordering no. without timer
25 x 65 x 81 PG 13.5 cable gland 1/2" NPT cable gland	12 m 12 m	PMP 12 RG PMP 12 RI

### **Specifications**

Rated operating dist. (S <sub>n</sub> ) (0 to 5,000 lux)	12 m with reflector type ER 4, ref. target
Blind zone	≤ 0.15 m
Sensitivity	Fixed
Temperature drift	≤ 0.4 %/°C
Differential travel (H) Hysteresis	3 to 20%
Rated operational volt. (U <sub>B</sub> )	10.8 to 264 VDC 21.6 to 264 VAC, 45 to 65 Hz
Rated operational power (relay ON)	≤ 2 W (2.5 VA)
Output Contact ratings (AgCdO) Resistive loads AC 1 DC 1 Small inductive loads AC 15 DC 13 Mechanical life (typical) Electrical life (typical)	µ (micro gap) 3 A/250 VAC 3 A/30 VDC 2 A/250 VAC 3 A/30 VDC ≥ 40 x 10 <sup>6</sup> operations ≥ 5 x 10 <sup>5</sup> operations at 220 VAC - 3 A resistive load: 360 impulses/h
Dielectric voltage	2,000 VAC (rms) (cont./supply)
Light source	GaAlAs, LED, 660 nm
Light type	Visible, modulated

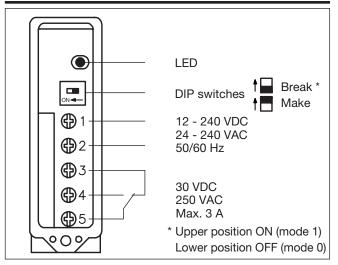
Optical angle	± 1.5°	
Light spot size	280 mm at 4 m	
Ambient light	Max. 5'000 lux	
Operating frequency	20 Hz	
Response time		
OFF-ON (t <sub>ON</sub> )	≤ 20 ms	
ON-OFF (t <sub>OFF</sub> )	≤ 30 ms	
Power ON delay (t <sub>v</sub> )	≤ 300 ms (typ. 100 ms)	
Output function	Switch selectable, make or break switching	
Indication		
Target detected	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	-25° to +55°C (-13° to +131°F)	
Storage	-30° to +80°C (-22° 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	250 VAC (rms)	



## **Specifications (cont.)**

Housing material	
Body	PC/ABS, grey
Front	PMMA, red
Cover	PC, black
Cable gland	PA, black, reinforced
Mounting bracket	Steel, galvanized
Connection	
Screw terminal	5 x 2 x 1 mm <sup>2</sup>
Cable gland	PG 13.5 or 1/2" NPT
_	for cable 6 to 10 mm
Weight	110 g
Approvals	UL, CSA
CE-marking	Yes

## **Connection Diagram**



### **Operation Diagram**

t = Time delay

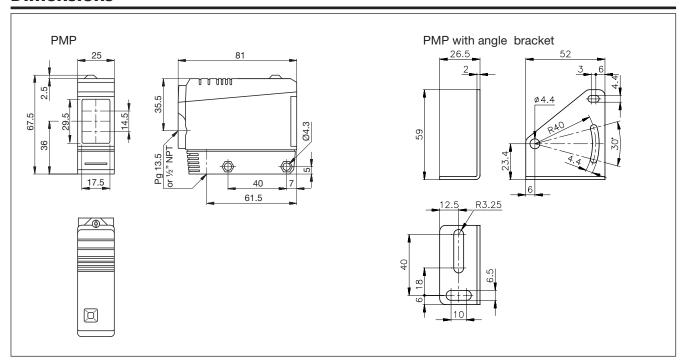
tv = Power ON delay

Power supply

Target present

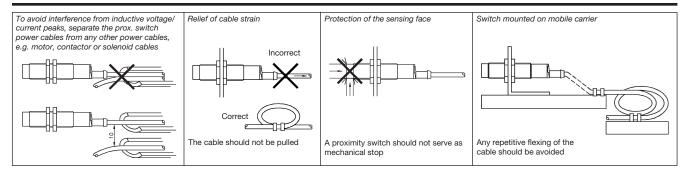
Object present

#### **Dimensions**





### **Installation Hints**



### **Delivery Contents**

- Photoelectric switch: PMP12..
- Cable gland
- Installation instruction
- Mounting bracket
- Packaging: Cardboard box

#### **Accessories**

- Reflectors: ER series
- MB02 (longer mounting bracket)