

# Photoelectrics Retro-reflective, Industrial Door Market Type PMP12.M, Polarized, Relay Output, Mute Input

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- Range: 12 m
- Modulated, visible light, polarized
- Make or break switching function (switch selectable)
- Make or break Mute function (switch selectable)
- LED-indication for target detected
- Multi supply voltage:  
24 VDC and 24 VAC, 50/60 Hz
- 25 x 65 x 81 mm reinforced PC/ABS- housing, IP 67
- NO and NC output
- High EMC immunity
- CE, UL325 and UL508 approved



## Product Description

The PMP12.. is a powerful polarized retro reflective sensor. The sensor is designed to meet the harsh requirements in industrial environments. With a sensing distance at 12 m the sensor is useful in applications where dust and weather conditions will influence on the sensing distance. The sen-

sor is made in a strong glass reinforced PC/ABS housing with two cable glands for easy connection. With Mute Input on the transmitter the sensor fulfill European and North American regulations for Industrial doors

## Ordering Key

**PMP12RGM**

Type family \_\_\_\_\_  
 Type \_\_\_\_\_  
 Sensing distance (m) \_\_\_\_\_  
 Output relay \_\_\_\_\_  
 Cable gland type \_\_\_\_\_  
 Mute input \_\_\_\_\_

## 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	<b>PMP 12 RGM</b> <b>PMP 12 RIM</b>

## Specifications

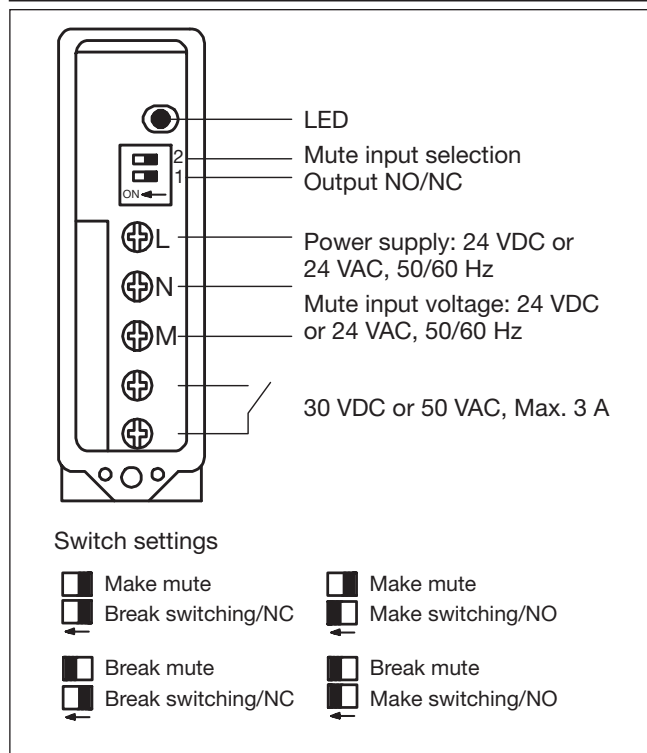
<b>Rated operating dist. (S<sub>n</sub>)</b> (0 to 5,000 lux)	12 m with reflector type ER 4, ref. target	<b>Dielectric voltage</b>	2,000 VAC (rms) (cont./supply)
<b>Blind zone</b>	≤ 0.15 m	<b>Light source</b>	GaAIAs, LED, 660 nm
<b>Sensitivity</b>	Fixed	<b>Light type</b>	Visible, modulated
<b>Temperature drift</b>	≤ 0.4 %/°C	<b>Optical angle</b>	± 1.5°
<b>Differential travel (H)</b> Hysteresis	3 to 20%	<b>Light spot size</b>	280 mm at 4 m
<b>Rated operational volt. (U<sub>B</sub>)</b> AC: 45 to 65 Hz	24 VDC ± 20% 24 VAC ± 20%	<b>Ambient light</b>	Max. 5'000 lux
<b>Rated operational power</b> (relay ON)	≤ 1 W (1.2 VA)	<b>Operating frequency</b>	20 Hz
<b>Output</b>	μ (micro gap)	<b>Response time (object related)</b> OFF-ON (t <sub>ON</sub> ) ON-OFF (t <sub>OFF</sub> )	≤ 20 ms ≤ 30 ms
Contact ratings (AgCdO)	3 A/250 VAC	<b>Power ON delay (t<sub>v</sub>)</b>	≤ 300 ms (typ. 100 ms)
Resistive loads AC 1	3 A/30 VDC	<b>Output function</b>	Switch selectable, make or break switching
DC 1	2 A/250 VAC	<b>Mute function</b>	Switch selectable
Small inductive loads AC 15	3 A/30 VDC	Make on	≥ 4 VDC/VAC
DC 13	≥ 40 x 10 <sup>6</sup> operations	Response time output off	< 20 ms
Mechanical life (typical)	≥ 5 x 10 <sup>5</sup> operations	Make off	< 2 VDC/VAC
Electrical life (typical)	at 220 VAC - 3 A resistive load: 360 impulses/h	Response time output on	< 45 ms
		Break on	< 2 VDC/VAC
		Response time output off	< 45 ms
		Break off	≥ 4 VDC/VAC
		Response time output on	< 20 ms



## Specifications (cont.)

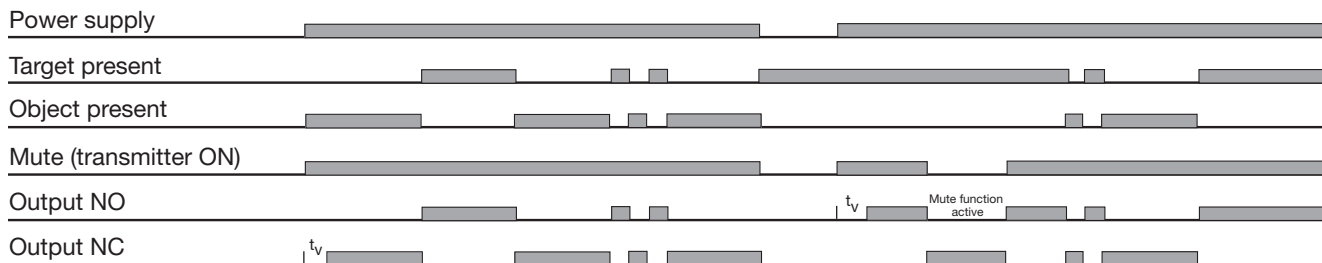
<b>Max current</b>	10 mA @ 24 VDC 16 mA @ 24 VAC
<b>Indication</b> Target detected	LED, yellow
<b>Environment</b> Overvoltage category	III (IEC 60664/60664A; 60947-1)
Pollution degree	3 (IEC 60664/60664A; 60947-1)
Degree of protection	IP 67 (IEC 60529; 60947-1)
<b>Temperature</b> Operating	-25° to +55°C (-13° to +131°F)
Storage	-30° to +80°C (-22° to +176°F)
<b>Vibration</b>	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)
<b>Shock</b>	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)
<b>Rated insulation voltage</b>	250 VAC (rms)
<b>Housing material</b> Body	PC/ABS, grey
Front	PMMA, red
Cover	PC, black
Cable gland	PA, black, reinforced
Mounting bracket	Steel, galvanized
<b>Connection</b> 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
<b>Weight</b>	110 g
<b>UL-Approval</b>	cULus UL325, CSA-C22.2 No.247 cULus UL508
<b>CE-marking</b>	Yes EN12453, EN12445, EN12978

## Connection Diagram

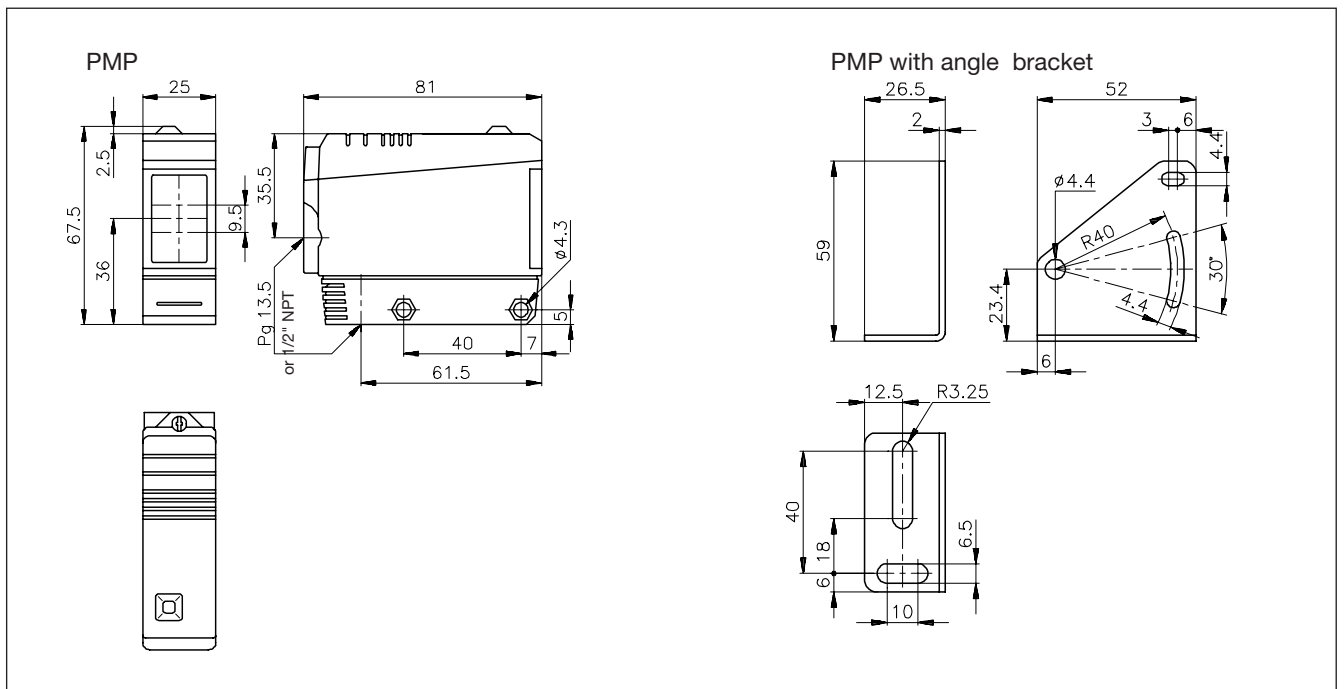


## Operation Diagram

t<sub>v</sub> = Power ON delay



## Dimensions



## Delivery Contents

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

## Accessories

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

For further information refer to "Accessories".