

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

CARLO GAVAZZI



- 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 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 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 _n)	Ordering no. without timer
25 x 65 x 81		
PG 13.5 cable gland	12 m	PMP 12 RG
1/2" NPT cable gland	12 m	PMP 12 RI

Specifications

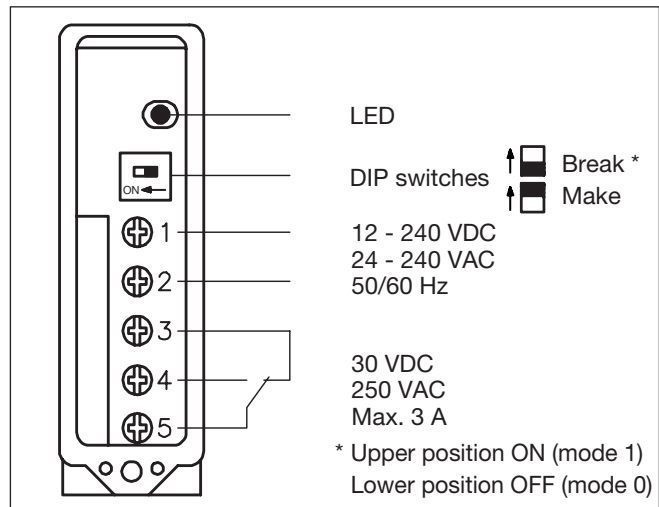
Rated operating dist. (S _n) (0 to 5,000 lux)	12 m with reflector type ER 4, ref. target	Optical angle	± 1.5°
Blind zone	≤ 0.15 m	Light spot size	280 mm at 4 m
Sensitivity	Fixed	Ambient light	Max. 5'000 lux
Temperature drift	≤ 0.4 %/°C	Operating frequency	20 Hz
Differential travel (H) Hysteresis	3 to 20%	Response time OFF-ON (t _{ON}) ON-OFF (t _{OFF})	≤ 20 ms ≤ 30 ms
Rated operational volt. (U _B)	10.8 to 264 VDC 21.6 to 264 VAC, 45 to 65 Hz	Power ON delay (t _v)	≤ 300 ms (typ. 100 ms)
Rated operational power (relay ON)	≤ 2 W (2.5 VA)	Output function	Switch selectable, make or break switching
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 ⁶ operations ≥ 5 x 10 ⁵ operations at 220 VAC - 3 A resistive load: 360 impulses/h	Indication Target detected	LED, yellow
Dielectric voltage	2,000 VAC (rms) (cont./supply)	Environment Overvoltage category Pollution degree Degree of protection	III (IEC 60664/60664A; 60947-1) 3 (IEC 60664/60664A; 60947-1) IP 67 (IEC 60529; 60947-1)
Light source	GaAlAs, LED, 660 nm	Temperature Operating Storage	-25° to +55°C (-13° to +131°F) -30° to +80°C (-22° to +176°F)
Light type	Visible, modulated	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.)

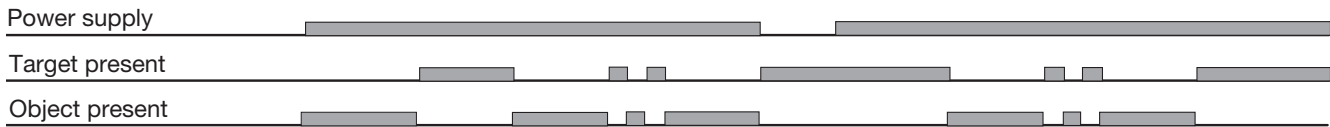
Housing material	
Body	PC/ABS, grey
Front	PMMA, red
Cover	PC, black
Cable gland	PA, black, reinforced
Mounting bracket	Steel, galvanized
Connection	
Screw terminal	5 x 2 x 1 mm ²
Cable gland	PG 13.5 or 1/2" NPT for cable 6 to 10 mm
Weight	110 g
Approvals	UL, CSA
CE-marking	Yes

Connection Diagram

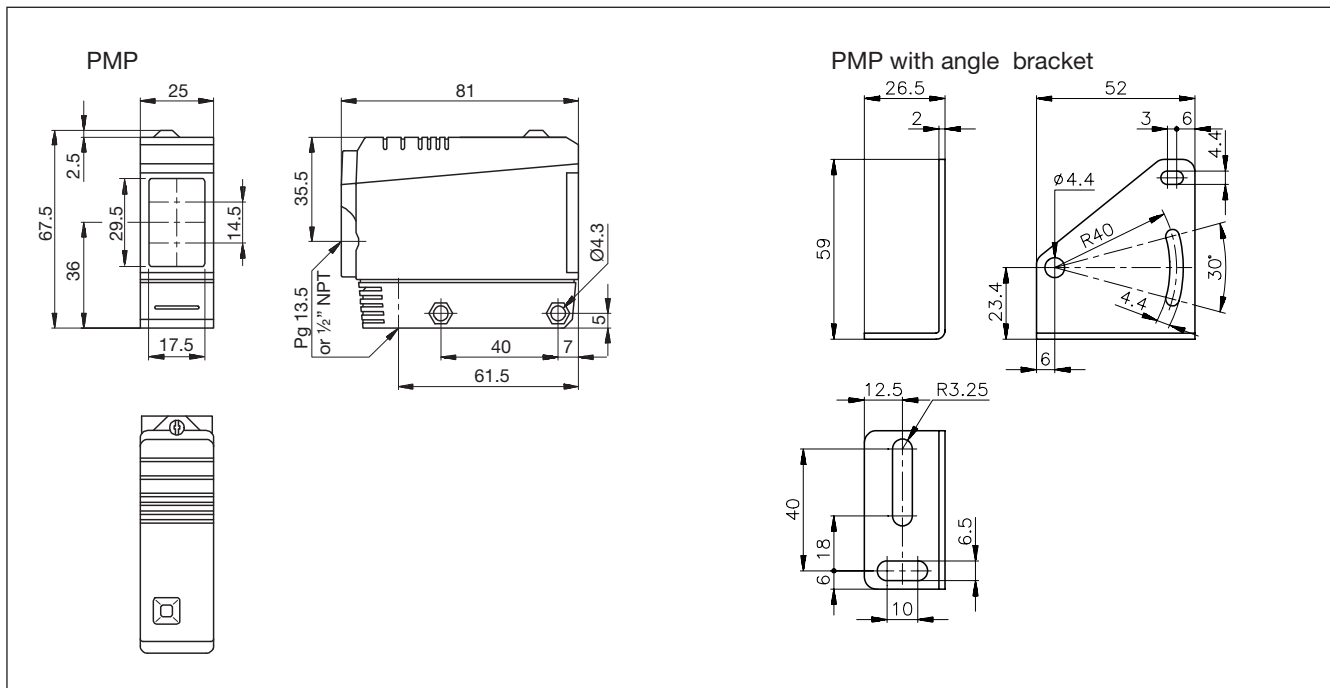


Operation Diagram

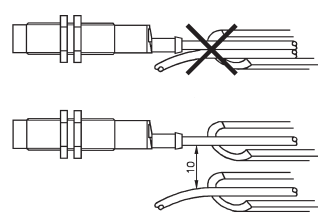
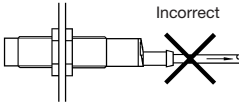
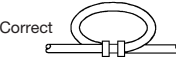
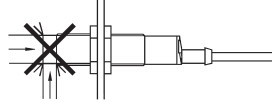
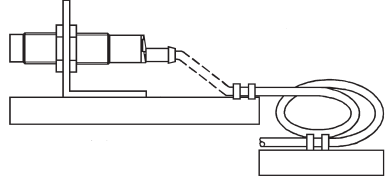
t = Time delay
tv = Power ON delay



Dimensions



Installation Hints

<p>To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables</p> 	<p>Relief of cable strain</p> <p>Incorrect</p>  <p>Correct</p>  <p>The cable should not be pulled</p>	<p>Protection of the sensing face</p>  <p>A proximity switch should not serve as mechanical stop</p>	<p>Switch mounted on mobile carrier</p>  <p>Any repetitive flexing of the cable should be avoided</p>
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Delivery Contents

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

Accessories

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

Mouser Electronics

Authorized Distributor

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[PMP12RG](#) [PMP12RI](#)