

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

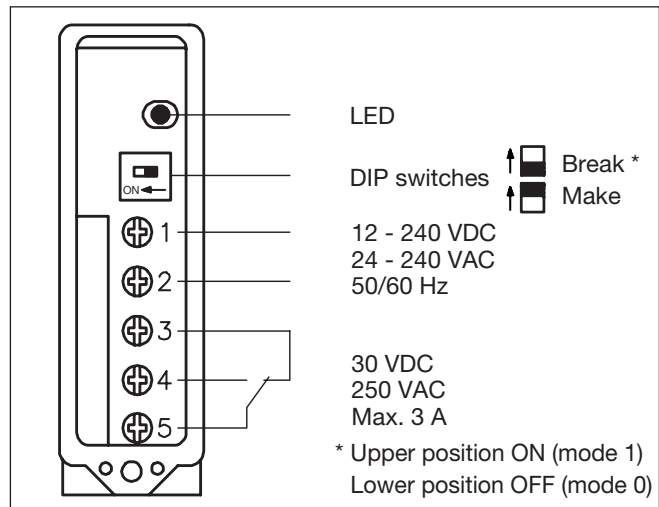
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| Rated operating dist. (S _n) (0 to 5,000 lux) | 12 m with reflector type ER 4, ref. target | Optical angle | ± 1.5° |
| Blind zone | ≤ 0.15 m | Light spot size | 280 mm at 4 m |
| Sensitivity | Fixed | Ambient light | Max. 5'000 lux |
| Temperature 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.)

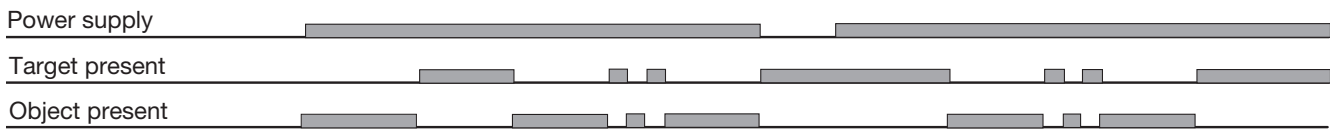
| | |
|-------------------------|--|
| Housing material | |
| Body | PC/ABS, grey |
| Front | PMMA, red |
| Cover | PC, black |
| Cable gland | PA, black, reinforced |
| Mounting bracket | Steel, galvanized |
| Connection | |
| Screw terminal | 5 x 2 x 1 mm ² |
| Cable gland | PG 13.5 or 1/2" NPT for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

Connection Diagram

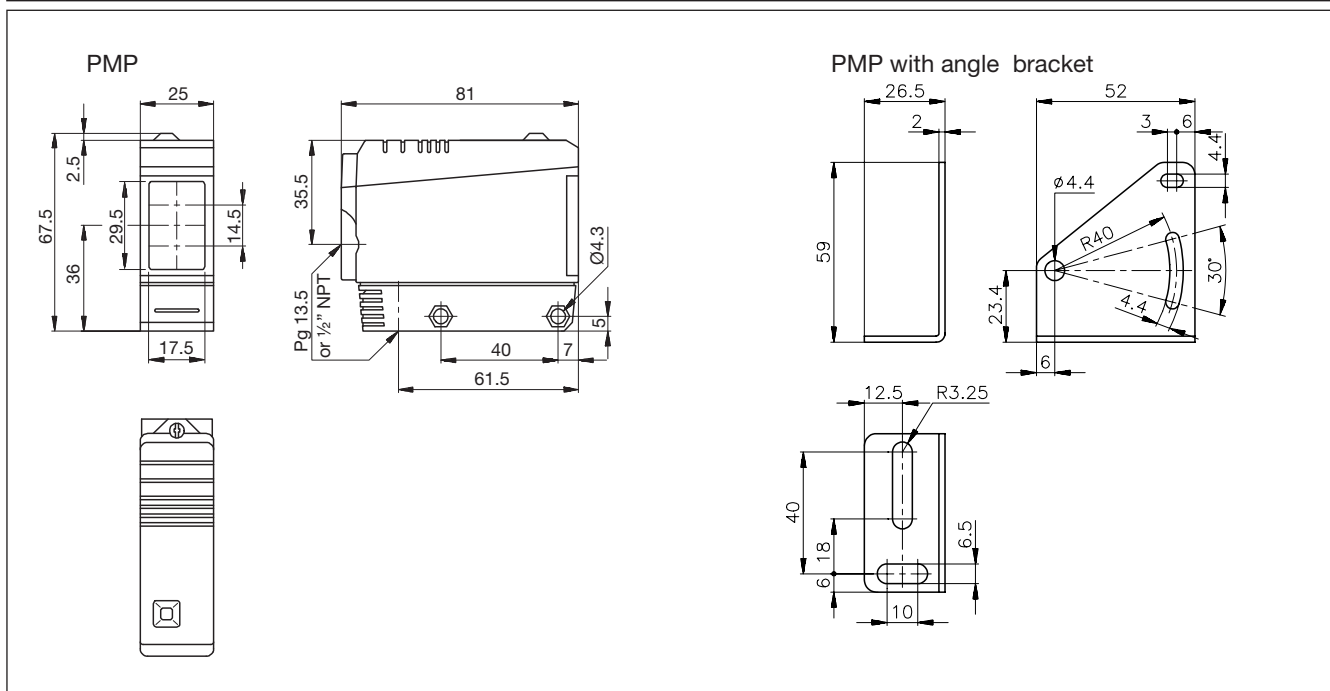


Operation Diagram

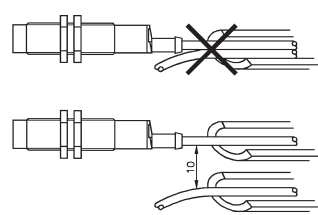
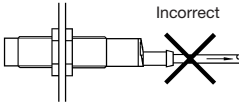

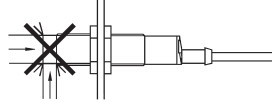
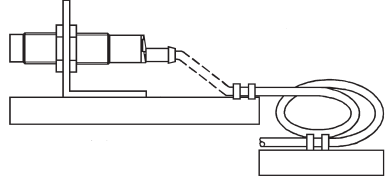
t = Time delay
tv = Power ON delay



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> |
|---|---|--|--|

Delivery Contents

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

Accessories

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

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