

Photoelectrics

Retro-reflective, Industrial Door Market

Type PMP12.M, Polarized, Relay Output, Mute Input

CARLO GAVAZZI



- 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
- 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 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 _n)	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 RGM PMP 12 RIM

Specifications

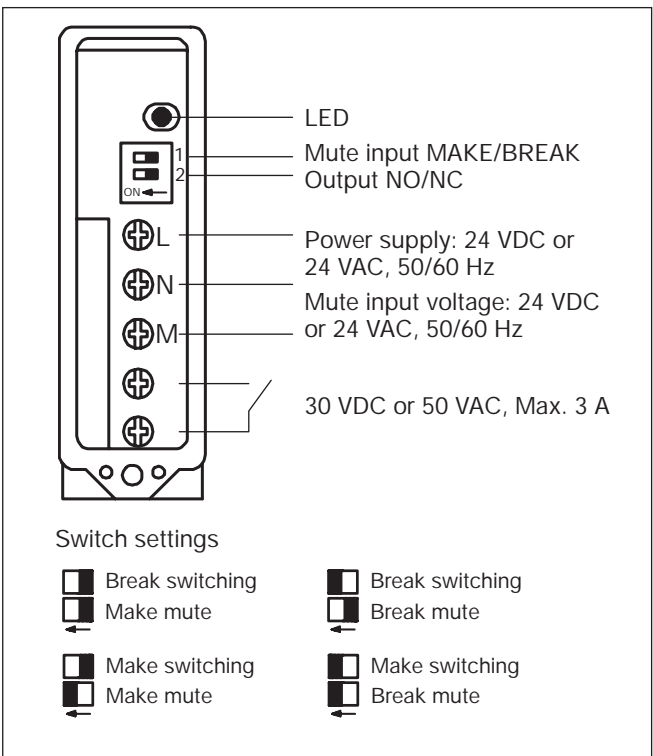
Rated operating dist. (S_n) (0 to 5,000 lux)	12 m with reflector type ER 4, ref. target	Dielectric voltage	2,000 VAC (rms) (cont./supply)
Blind zone	≤ 0.15 m	Light source	GaAlAs, LED, 660 nm
Sensitivity	Fixed	Light type	Visible, modulated
Temperature drift	≤ 0.4 %/°C	Optical angle	± 1.5°
Differential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



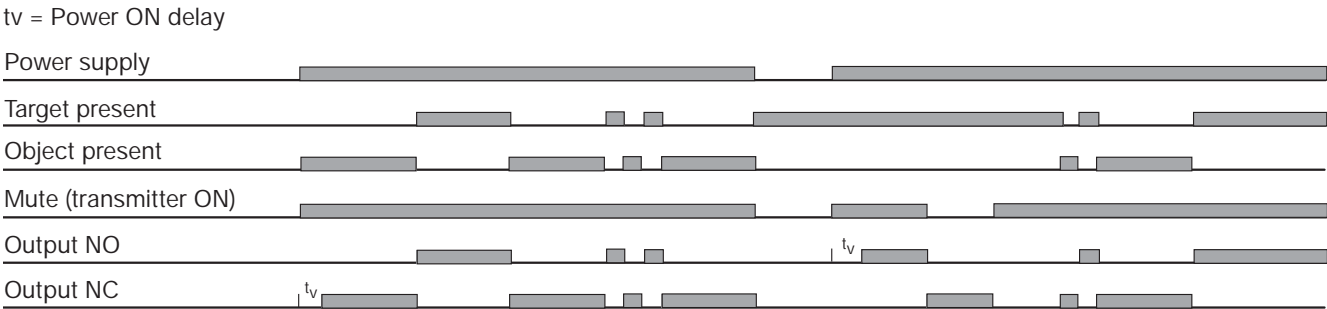
Specifications (cont.)

Max current	10 mA @ 24 VDC 16 mA @ 24 VAC
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)
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 EN12453, EN12445, EN12978

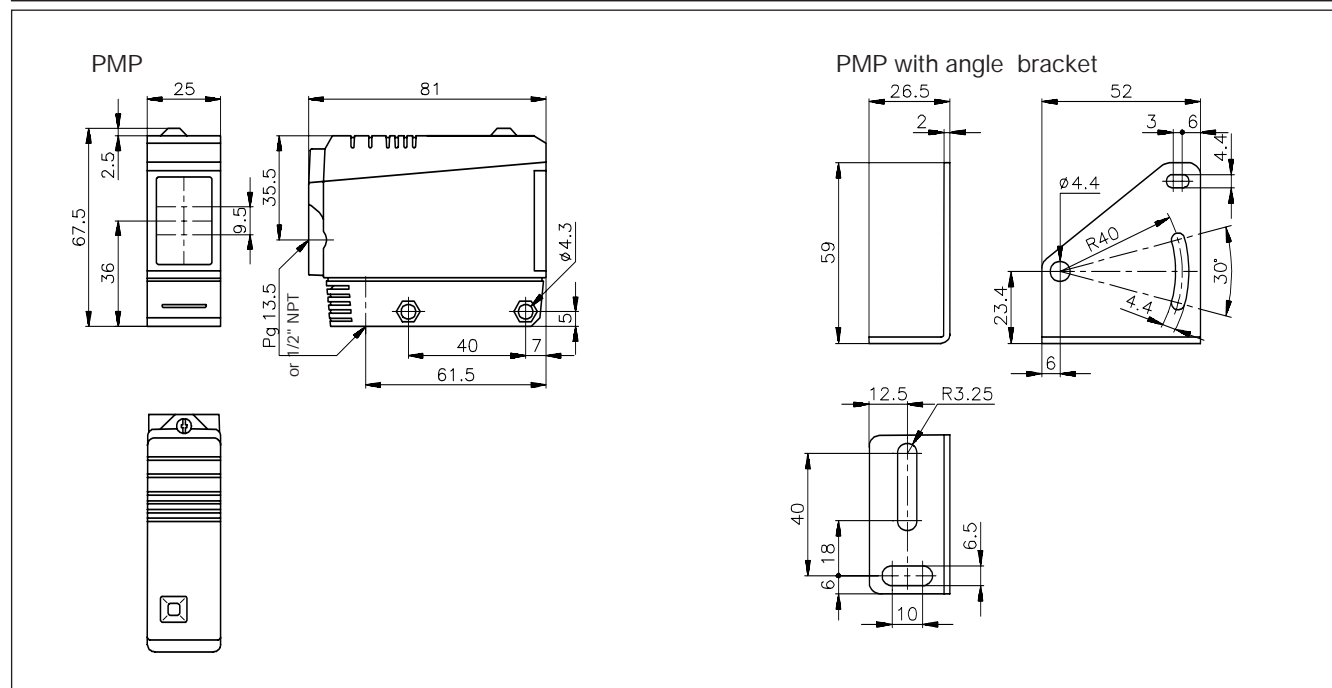
Connection Diagram



Operation Diagram



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".