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**
- **CE, UL325 and UL508 approved**

CE c RU us c UL us

Product Description

The PMP12.. is a power-full polarized retro reflect-ive 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 connec-tion.

With Mute Input on the transmitter the sensor fullfill European and North Ameri-can regulations for Industrial doors

Ordering Key

PMP12RGM

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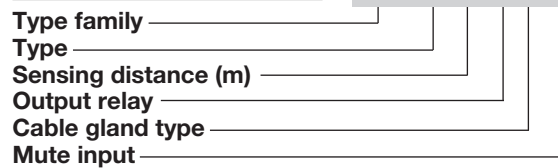
Type Selection

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**

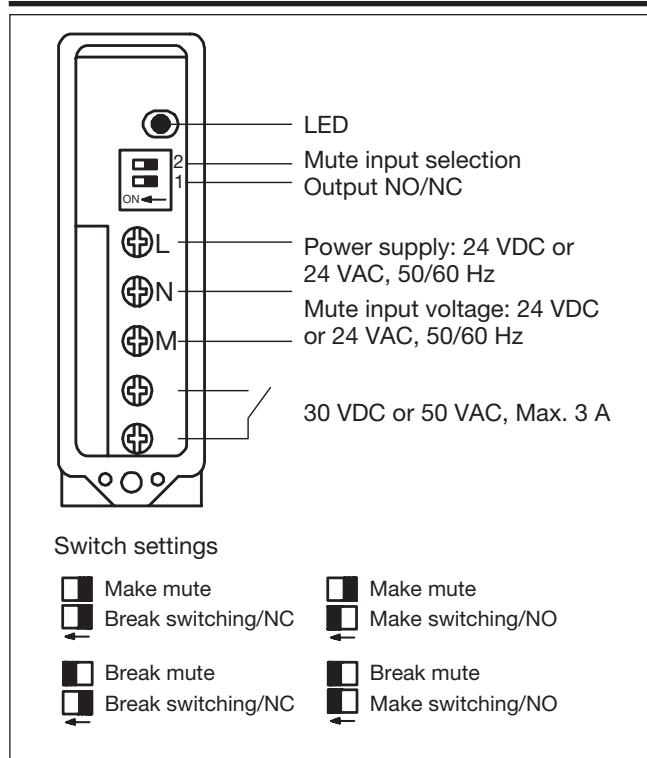## Specifications

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**	$\pm 1.5°$
Differential travel (H) Hysteresis	 3 to 20%	**Light spot size** **Ambient light**	280 mm at 4 m Max. 5'000 lux
		Operating frequency	20 Hz
Rated operational volt. (U_B) AC: 45 to 65 Hz	24 VDC $\pm$ 20% 24 VAC $\pm$ 20%	**Response time** (object related) OFF-ON (t_{ON}) ON-OFF (t_{OFF})	 ≤ 20 ms ≤ 30 ms
Rated operational power (relay ON)	 ≤ 1 W (1.2 VA)	**Power ON delay** (t_v)	≤ 300 ms (typ. 100 ms)
Output Contact ratings (AgCdO)	 μ (micro gap)	**Output function**	Switch selectable, make or break switching
Resistive loads AC 1 DC 1	3 A/250 VAC 3 A/30 VDC	**Mute function** Make on	Switch selectable ≥ 4 VDC/VAC
Small inductive loads AC 15 DC 13	2 A/250 VAC 3 A/30 VDC	Response time output off Make off	< 20 ms < 2 VDC/VAC
Mechanical life (typical) Electrical life (typical)	$\geq 40 \times 10^6$ operations $\geq 5 \times 10^5$ operations at 220 VAC - 3 A resistive load: 360 impulses/h	Response time output on Break on Response time output off Break off Response time output on	< 45 ms < 2 VDC/VAC < 45 ms ≥ 4 VDC/VAC < 20 ms

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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 mm²
Cable gland	PG 13.5 or 1/2" NPT for cable 6 to 10 mm
Weight	110 g
UL-Approval cURus	UL325, CSA-C22.2 No.247
cULus	UL508
CE-marking	Yes
	EN12453, EN12445, EN12978

Connection Diagram

- LED
- Mute input selection
- Output NO/NC
- Power supply: 24 VDC or 24 VAC, 50/60 Hz
- Mute input voltage: 24 VDC or 24 VAC, 50/60 Hz
- 30 VDC or 50 VAC, Max. 3 A

L
N
M

Switch settings

	Make mute		Make mute
	Break switching/NC		Make switching/NO
	Break mute		Break mute
	Break switching/NC		Make switching/NO

Operation Diagram

tv = Power ON delay

Power supply

Target present

Object present

Mute (transmitter ON)

Output NO

Output NC

tv

Mute function active

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Dimensions

PMP

PMP with angle bracket
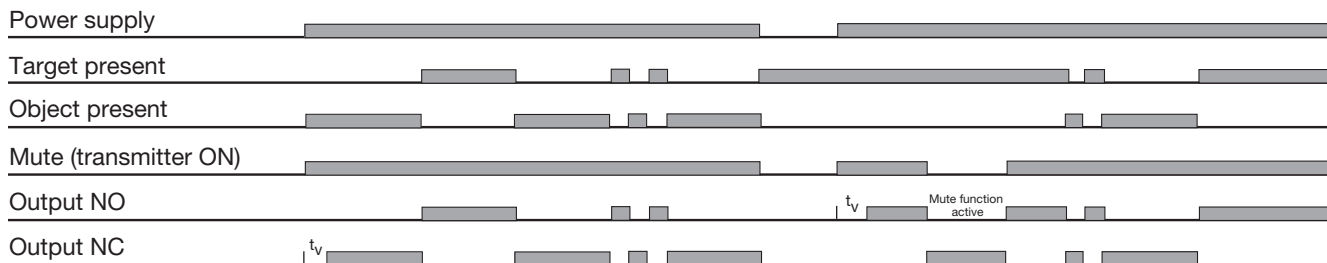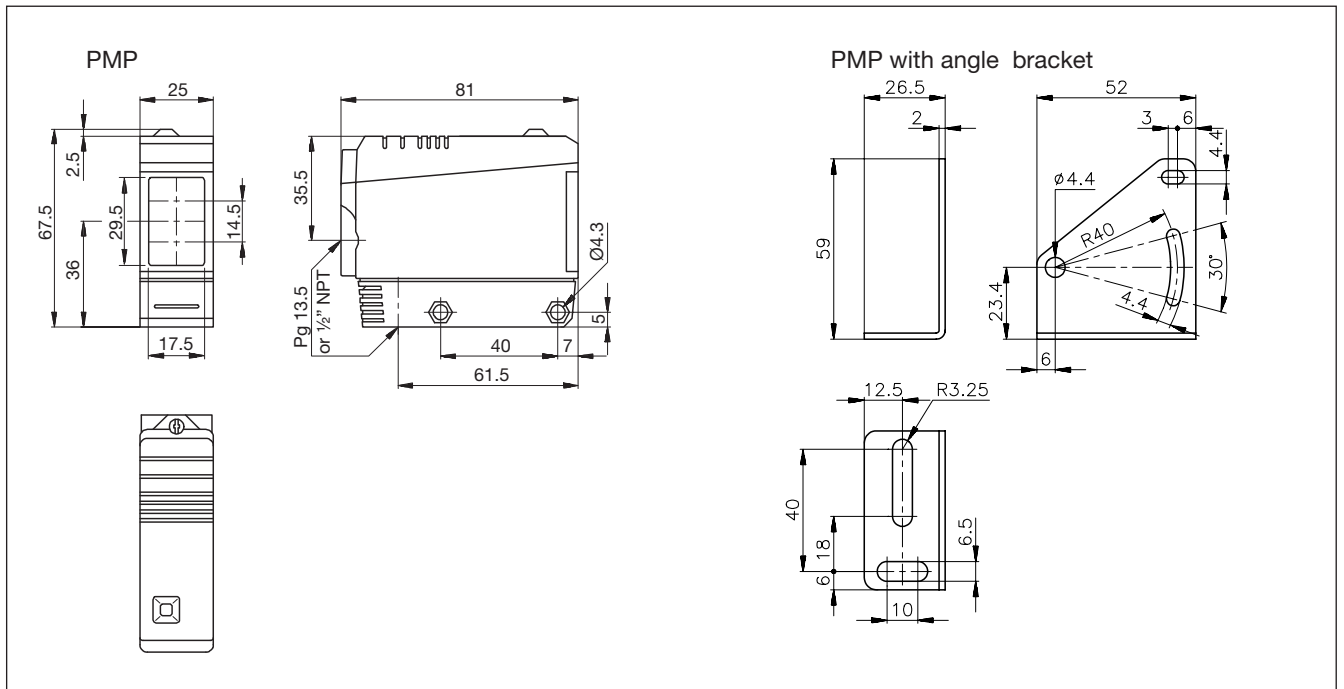
Delivery Contents

- 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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