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

CARLO GAVAZZI

PHOTOLINE
Made in Denmark by Electromatic
A Carlo Gavazzi Group Company

- **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 $\mathcal{R} \mathcal{L}$ 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

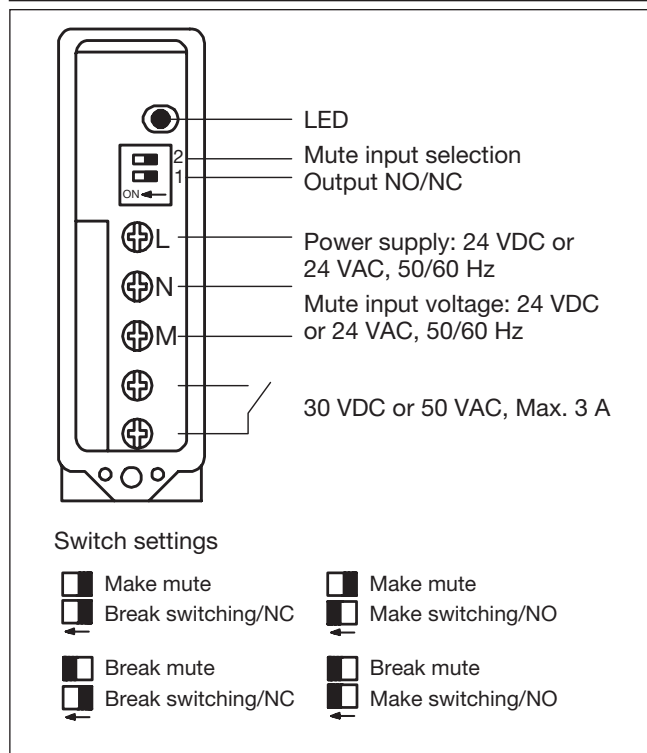| Housing W x H x D	Range (Sₙ)	Ordering no. without timer
25 x 65 x 81		
PG 13.5 cable gland	12 m	**PMP 12 RGM**
1/2" NPT cable gland	12 m	**PMP 12 RIM**

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
			Ambient light	Max. 5'000 lux
Rated operational volt. (U_B) AC: 45 to 65 Hz	24 VDC ± 20% 24 VAC ± 20%		**Operating frequency**	20 Hz
Rated operational power (relay ON)	≤ 1 W (1.2 VA)		**Response time** (object related) OFF-ON (t_{ON}) ON-OFF (t_{OFF})	≤ 20 ms ≤ 30 ms
Output Contact ratings (AgCdO)	μ (micro gap)		**Power ON delay** (t_v)	≤ 300 ms (typ. 100 ms)
Resistive loads AC 1	3 A/250 VAC		**Output function**	Switch selectable, make or break switching
DC 1	3 A/30 VDC			
Small inductive loads AC 15	2 A/250 VAC		**Mute function**	Switch selectable
DC 13	3 A/30 VDC		Make on	≥ 4 VDC/VAC
Mechanical life (typical)	≥ 40 x 10⁶ operations		Response time output off	< 20 ms
Electrical life (typical)	≥ 5 x 10⁵ operations at 220 VAC - 3 A resistive load: 360 impulses/h		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

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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 Storage	-25° to +55°C (-13° to +131°F) -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 Front Cover Cable gland Mounting bracket	PC/ABS, grey PMMA, red PC, black PA, black, reinforced Steel, galvanized
Connection Screw terminal Cable gland	5 x 2 x 1 mm² PG 13.5 or 1/2" NPT for cable 6 to 10 mm
Weight	110 g
UL-Approval cURus cULus	UL325, CSA-C22.2 No.247 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

Switch settings

Make mute
Break switching/NC

Make mute
Make switching/NO

Break mute
Break switching/NC

Break mute
Make switching/NO

Operation Diagram

tv = Power ON delay

Power supply

Target present

Object present

Mute (transmitter ON)

Output NO

Output NC

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Dimensions

PMP

PMP with angle bracket
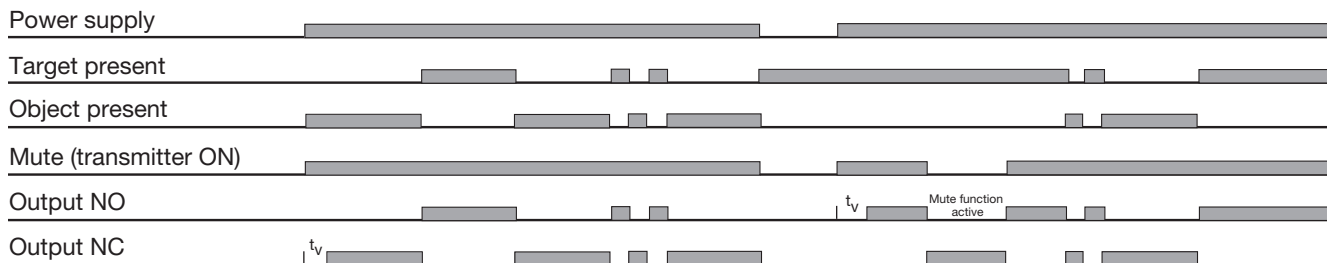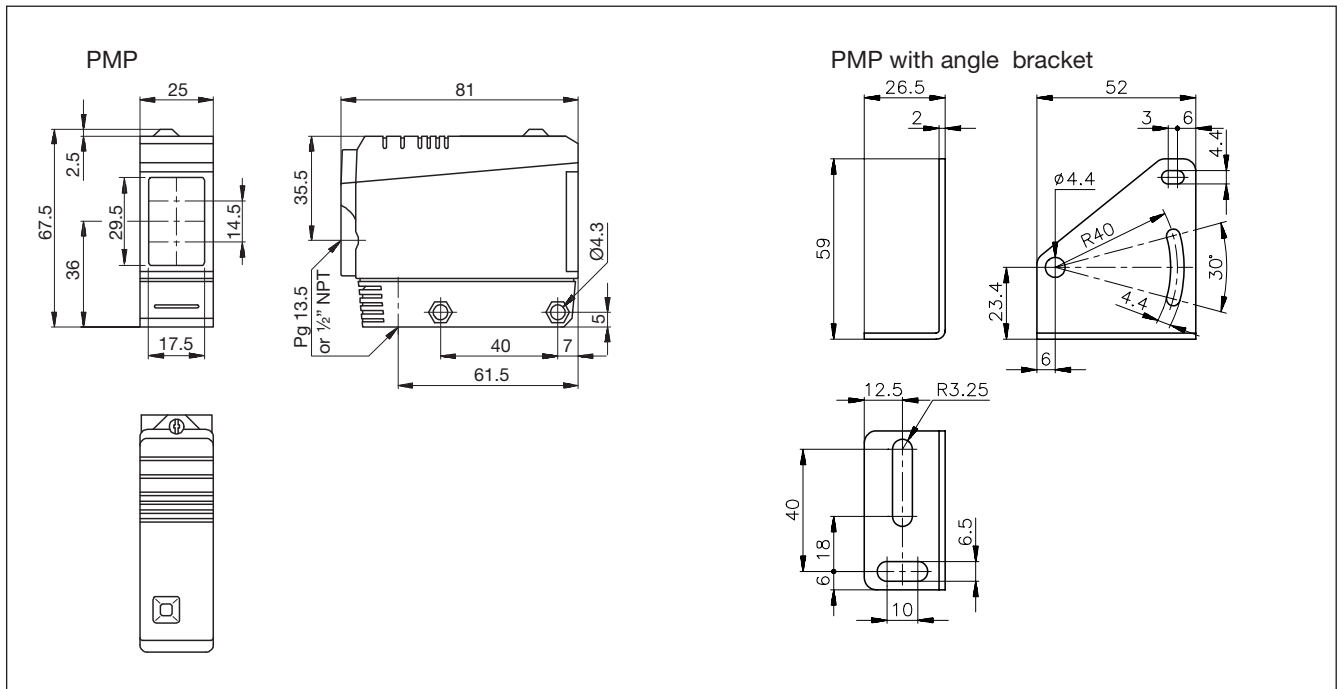
Delivery Contents

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

Accessories

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

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