

Photoelectrics

Retro-reflective, Polarized, Relay Output

Type PMP

CARLO GAVAZZI



- Range: 6 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
- Timer options (adjustable)
- NO and NC output



Product Description

Retro-reflective photoelectric switch with polarized light. Range up to 6 m. Fixed sensitivity. Immune to ambient light. Output function switch selectable. Protection degree IP 67. Screw terminal connection.

25 x 65 x 81 mm plastic housing. PG 13.5 or 1/2" NPT cable gland. Timer options: Delay on operate, delay on release, one shot (triggered on leading or trailing edge).

Ordering Key

PMP 6 R G T

Type _____
Range _____
Output _____
Cable gland type _____
Timer function _____

Type Selection

Housing W x H x D	Range (S _n)	Ordering no. with timer
25 x 65 x 81		
PG 13.5 cable gland	6 m	PMP 6R GT
1/2" NPT cable gland	6 m	PMP 6R IT

Specifications

Rated operating dist. (S_n) (0 to 5,000 lux)	PMP6.. 6 m with reflector type ER 4, ref. target	Operating frequency	20 Hz
Blind zone	≤ 0.15 m	Response time OFF-ON (t _{ON}) ON-OFF (t _{OFF})	≤ 20 ms ≤ 30 ms
Rated operational volt. (U_B) AC: 45 to 65 Hz	10.8 to 264 VDC 21.6 to 264 VAC	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)	Optional timer Delay on operate Delay on release One shot	0.1 to 7 s ± 2 s 0.1 to 7 s ± 2 s 0.1 to 7 s ± 2 s
Sensitivity	Fixed	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 Light type Optical angle Light spot size	GaAlAs, LED, 660 nm Visible, modulated ±2° 280 mm at 4 m	Temperature Operating Storage	-25° to +55°C (-13° to +131°F) -30° to +80°C (-22° to +176°F)



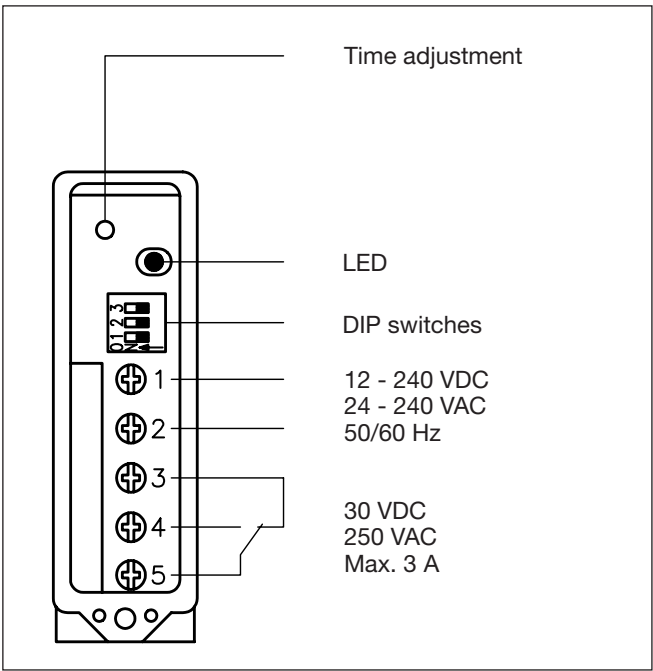
Specifications (cont.)

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	PC/ABS, grey Front PMMA, red Cover PC, black Cable gland PA, black, reinforced Mounting bracket Steel, black
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

Truth Table

	Make switching		Break switching	
Object present	Yes	No	Yes	No
LED	OFF	ON	OFF	ON
Load	Non-active	Active	Active	Non-active

Connection Diagram



Selection of Function

Switch
1 2 3

PMP 6R .

	1 Delay on operate - Break switching
	2 Delay on operate - Make switching
	3 Delay on release - Break switching
	4 Delay on release - Make switching
	5 One shot, trailing edge - Break switching
	6 One shot, trailing edge - Make switching
	7 One shot, leading edge - Break switching
	8 One shot, leading edge - Make switching

Upper position ON (Mode 1)
Lower position OFF (Mode 0)

Installation Hints

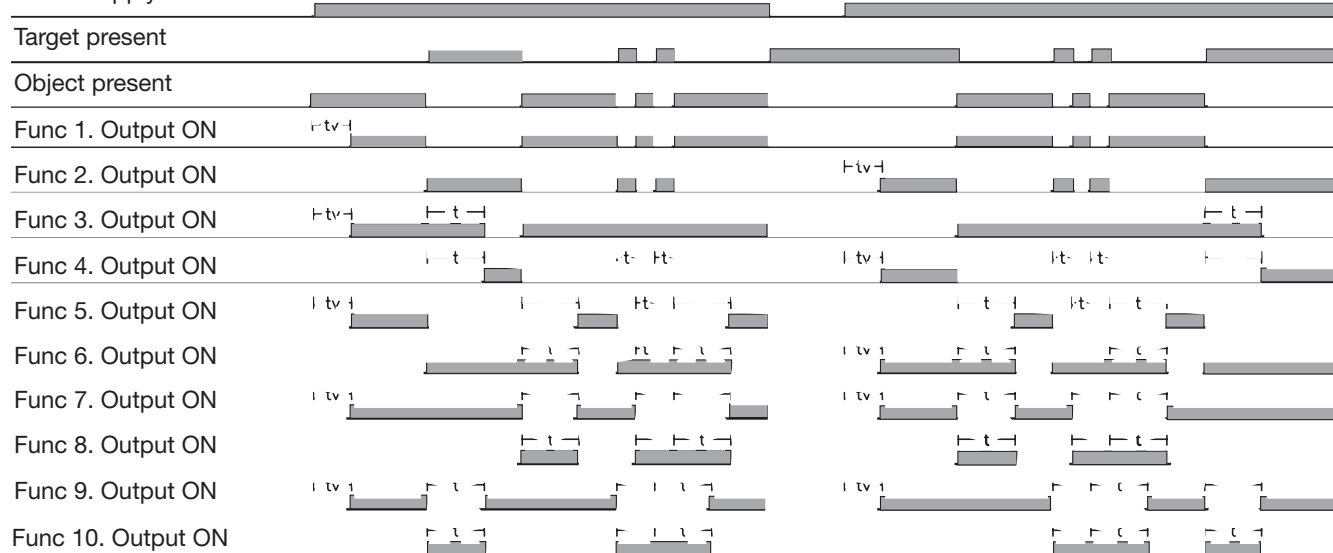
To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables	Relief of cable strain The cable should not be pulled	Protection of the sensing face A proximity switch should not serve as mechanical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

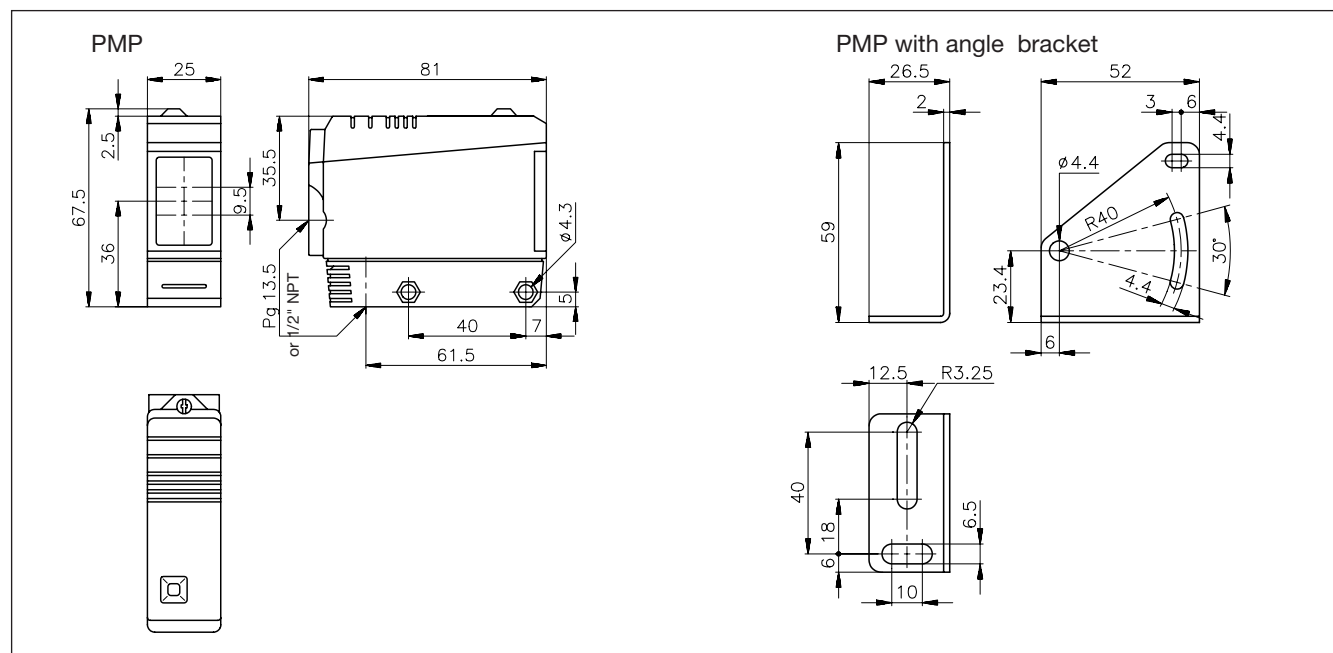
t = Time delay

tv = Power ON delay

Power supply



Dimensions



Accessories

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

For further information refer to "Accessories".

Delivery Contents

- Photoelectric switch: PMP
- Cable gland
- Installation instruction
- Mounting bracket
- **Packaging:** Corrugated cardboard (environmentally friendly recycling material)