Photoelectrics
Retro-reflective, Polarized, Transistor Output
Type PMP

CARLO GAVAZZI

- **Range: 6 m**
- **Modulated, visible light, polarized**
- **Rated operational voltage: 10 to 40 VDC**
- **Output: 200 mA, NPN or PNP**
- **Make or break switching function (switch selectable)**
- **Fully protected**
- **LED-indication for target detected**
- **High immunity to ambient light**
- **25 x 65 x 81 mm reinforced PC/ABS housing, IP 67**
- **Timer options (adjustable)**

Product Description

Retro-reflective photoelectric switch with polarized light. Range up to 6 m. Fixed sensitivity. High immunity to ambient light. Output function switch selectable. Protection degree IP 67. Screw terminal connection. 25 x 65 x 81 mm polycarbonate 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 P G T

Type
Range
Output
Cable gland type
Timing function

Type Selection

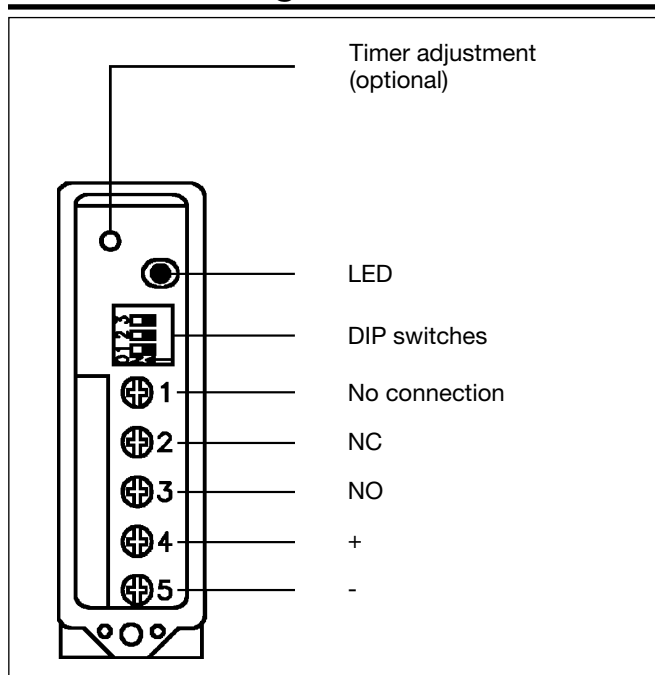| Housing W x H x D	Range S_n	Ordering no. without timer NPN	Ordering no. without timer PNP	Ordering no. with timer NPN	Ordering no. with timer PNP
25 x 65 x 81 PG 13.5 cable gland	6 m	PMP 6N G	PMP 6P G	PMP 6N GT	PMP 6P GT
1/2" NPT cable gland	6 m	PMP 6N I	PMP 6P I	PMP 6N IT	PMP 6P IT

Specifications

Rated operating distance (S_n) (0 to 5,000 lux)	6 m With reflector type ER 4, ref. target
Rated operational volt. (U_B)	10 to 40 VDC
Ripple (U_{rpp})	10%
Output current Continuous (I_e) Short-time (I)	$\leq$ 200 mA 200 mA, max. load capacity 100 nF
No load supply current	$\leq$ 40 mA
OFF-state current (I_r)	Max. 100 µA
Voltage drop (U_d)	$\leq$ 2.5 VDC
Transient voltage	IEC 60947-5-2, level 3, 2.5 kV
Dielectric voltage	2000 VAC rms (cont./supply)
Sensitivity	Fixed
Light source **Light type** **Optical angle** **Light spot size**	GaAlAs, LED, 660 nm Visible, modulated ±2° 280 mm at 4 m
Operating frequency **Response time** OFF-ON (t_{ON}) ON-OFF (t_{OFF})	100 Hz $\leq$ 4 ms $\leq$ 6 ms

Time delay before avail. (t_v)	$\leq$ 300 ms (typ. 100 ms)
Output function	Switch selectable, make or break switching
Indication Target detected	LED, yellow
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
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)
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	50 VAC (rms)
Electrical protection	Short-circuit, reverse polarity, overvoltage, transients

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Specifications (cont.)

Housing material	
Body	PC/ABS, grey
Front	PC, red
Cover	PC, black
Cable gland	PA, black, reinforced
Mounting bracket	Steel, black
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	90 g
CE-marking	Yes

Connection Diagram

Timer adjustment (optional)

LED

DIP switches

1 No connection

2 NC

3 NO

4 +

5 -

Accessories

- Reflectors: ER series
- MB02 mounting bracket 90 mm long for mounting PMP from behind

Selection of Function

Switch
1 2 3

PMP .. .

1 Break switching

2 Make switching

PMP .. .T

3 Delay on operate - Break switching

4 Delay on operate - Make switching

5 Delay on release - Break switching

6 Delay on release - Make switching

7 One shot, trailing edge - Break switching

8 One shot, trailing edge - Make switching

9 One shot, leading edge - Break switching

10 One shot, leading edge - Make switching

⊠ Don't care

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

Truth Table

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

Delivery Contents

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

Specifications are subject to change without notice (25.06.99)