

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 1/2" NPT cable gland	6 m 6 m	PMP 6N G PMP 6N I	PMP 6P G PMP 6P I	PMP 6N GT PMP 6N IT	PMP 6P GT PMP 6P IT

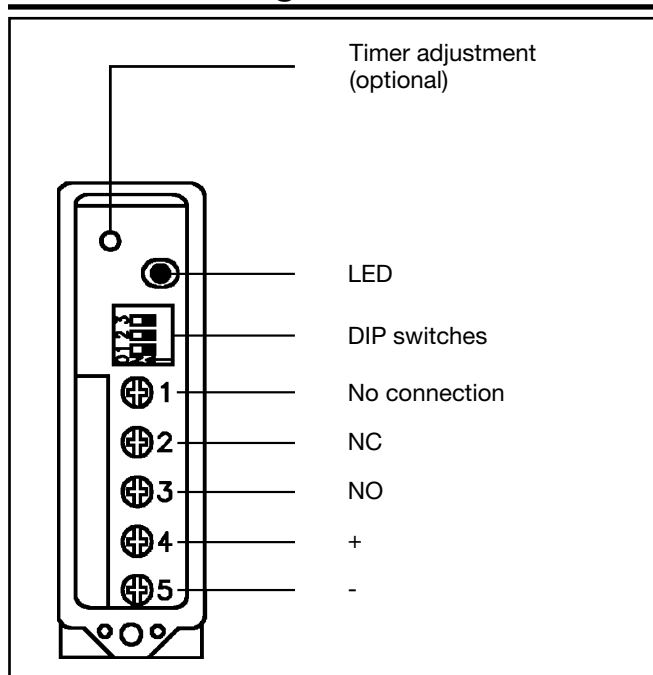
Specifications

Rated operating distance (S_n) (0 to 5,000 lux)	6 m With reflector type ER 4, ref. target	Time delay before avail. (t_v)	≤ 300 ms (typ. 100 ms)
Rated operational volt. (U_B)	10 to 40 VDC	Output function	Switch selectable, make or break switching
Ripple (U_{rpp})	10%	Indication	Target detected LED, yellow
Output current Continuous (I _a) Short-time (I)	≤ 200 mA 200 mA, max. load capacity 100 nF	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
No load supply current	≤ 40 mA	Environment Overvoltage category Pollution degree Degree of protection	III (IEC 664/664A; 947-1) 3 (IEC 664/664A; 947-1) IP 67 (IEC 529; 947-1)
OFF-state current (I_r)	Max. 100 μA	Temperature Operating Storage	-25° to +55°C (-13° to +131°F) -30° to +80°C (-22° to +176°F)
Voltage drop (U_d)	≤ 2.5 VDC	Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 68-2-6)
Transient voltage	IEC 947-5-2, level 3, 2.5 kV	Shock	2 x 1 m & 100 x 0.5 m (IEC 68-2-32)
Dielectric voltage	2000 VAC rms (cont./supply)	Rated insulation voltage	50 VAC (rms)
Sensitivity	Fixed	Electrical protection	Short-circuit, reverse polarity, overvoltage, transients
Light source	GaAlAs, LED, 660 nm		
Light type	Visible, modulated		
Optical angle	±2°		
Light spot size	280 mm at 4 m		
Operating frequency	100 Hz		
Response time OFF-ON (t _{ON}) ON-OFF (t _{OFF})	≤ 4 ms ≤ 6 ms		

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 mm ²
Cable gland	PG 13.5 or 1/2" NPT for cable 6 to 10 mm
Weight	90 g

Connection Diagram



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

Accessories

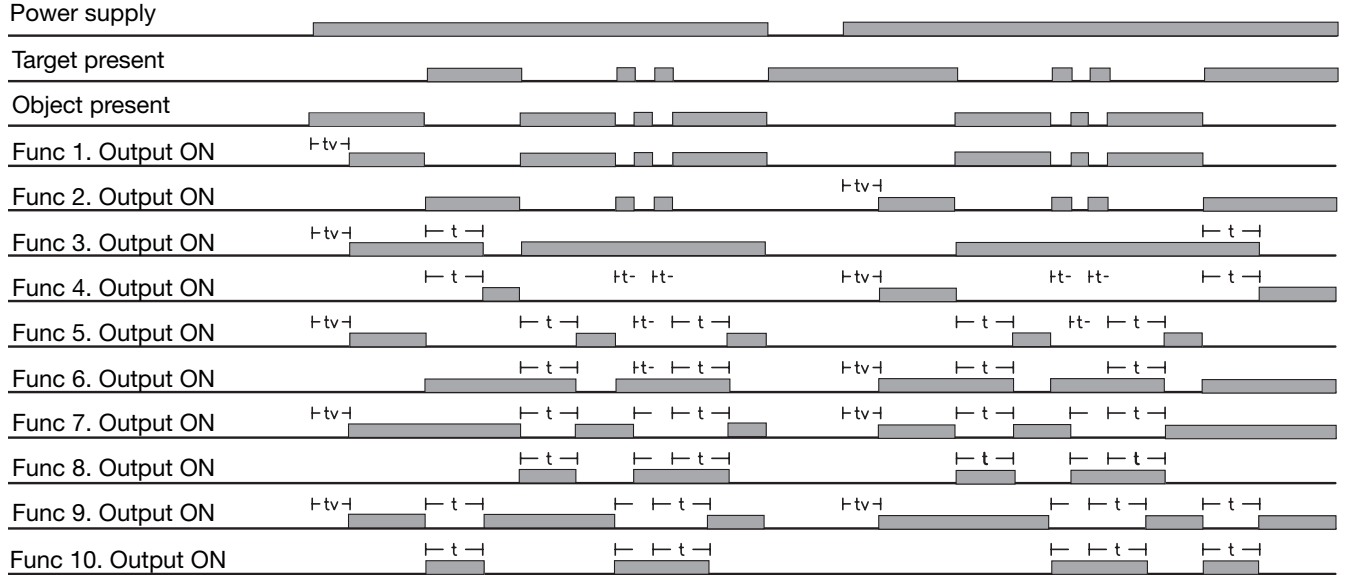
- Reflectors: ER series
- MB02 mounting bracket 90 mm long for mounting PMP from behind

Delivery Contents

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

Operation Diagram

t = Time delay
tv = Power ON delay



Dimensions

