

Photoelectrics Retro-reflective Type PMR

CARLO GAVAZZI



- Range: 10 m
- Modulated, infrared light
- 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 housing, IP 67
- Timer options (adjustable)
- NO and NC output

Product Description

Retro-reflective photoelectric switch. Range up to 10 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

PMR10R G T

Type _____
PG 13.5 cable gland _____
Option: Timer function _____

Type Selection

Housing W x H x D	Range S _n	Ordering no. without timer	Ordering no. with timer
25 x 65 x 81 PG 13.5 cable gland	10 m	PMR 10R G	PMR 10R GT
1/2" NPT cable gland	10 m	PMR 10R I	PMR 10R IT

Specifications

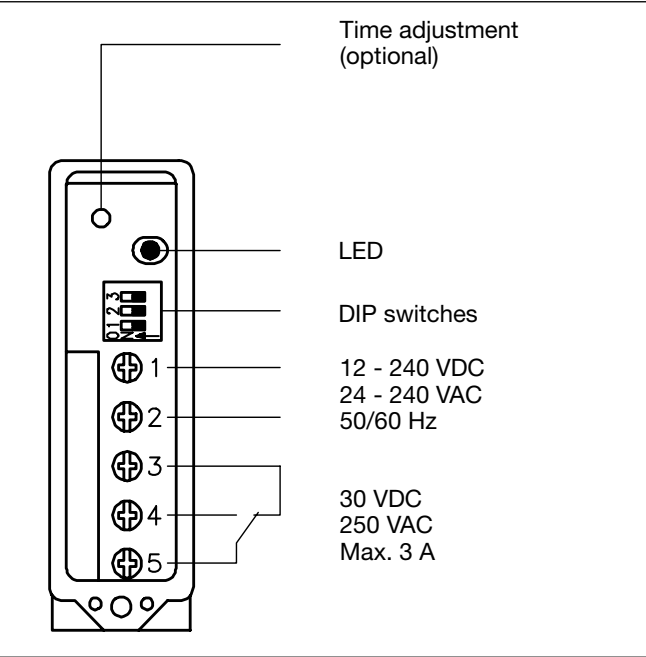
Rated operating dist. (S _n) (0 to 5,000 lux)	PMR10.. 10 m with reflector type ER 4, ref. target	Operating frequency (f)	20 Hz
Rated operational volt. (U _B) (AC: 45 to 65 Hz)	10.8 to 264 VDC 21.6 to 264 VAC	Response time OFF-ON (t _{ON}) ON-OFF (t _{OFF})	≤ 20 ms ≤ 30 ms
Rated operational power (Relay ON)	≤ 1.5 W (2.0 VA)	Power ON delay (t _v)	≤ 300 ms (typ. 100 ms)
Output Contact ratings (AgCdO) Resistive loads AC 1 DC 1 Small inductive loads AC 15 DC 13 Mechanical life Electrical life	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	Output function	Switch selectable, make or break switching
Dielectric voltage	2000 VAC rms (cont./supply)	Indication Target detected	LED, yellow
Sensitivity	Fixed	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
Light source Light type Optical angle Light spot size	GaAlAs, LED, 880 nm Infrared, modulated ±2° 280 mm at 4 m	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)



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	
Body	PC, grey
Front	PC, black
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

Connection Diagram



Accessories

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

For further information refer to "Accessories"

Selection of Function

Switch

1 2 3

PMR 10R .

PMR 10R .T

1 Break switching

2 Make switching

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

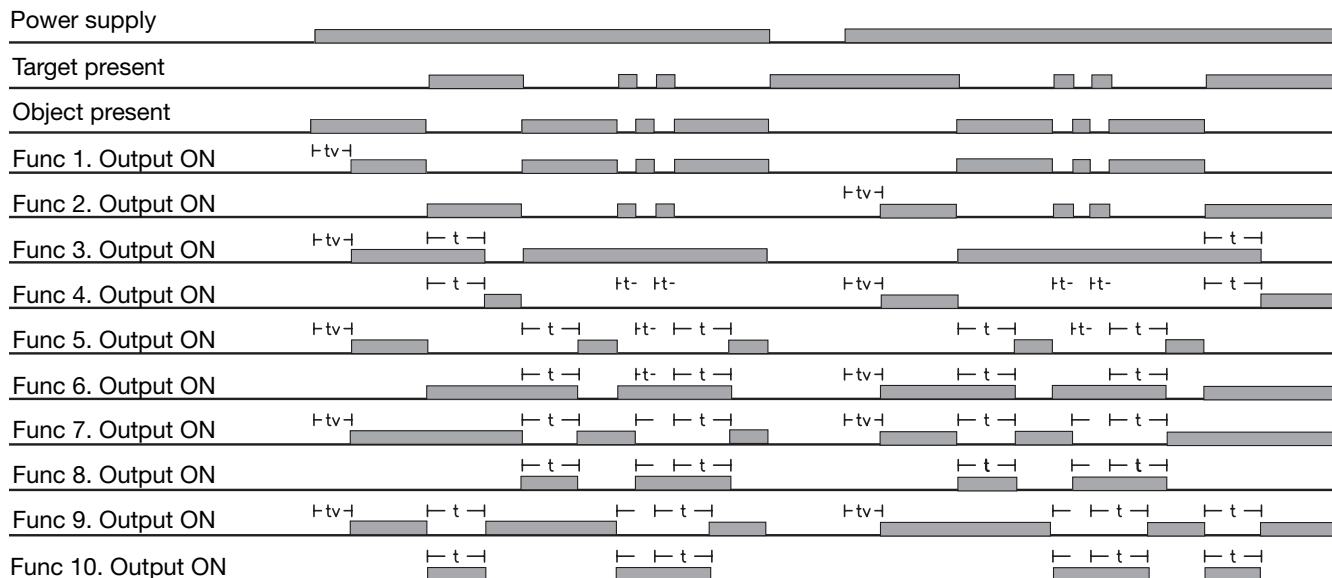
	Make switching		Break switching	
Object present	Yes	No	Yes	No
LED	OFF	ON	OFF	ON
Load	Non-active	Active	Active	Non-active

Delivery Contents

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

Operation Diagram

t = Time delay
tv = Power ON delay



Dimensions

