

# Photoelectrics Retro-reflective Type PMR18..

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- Range: 18 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
- NO and NC output
- High EMC immunity
- UL, CSA and CE

## Product Description

The PMR18.. is a powerful retro reflective sensor. The sensor is designed to meet the harsh requirements in industrial environments. With a sensing distance of 18 m the sensor is useful 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 connections.

## Ordering Key

**PMR18RG**

Type family \_\_\_\_\_  
 Type \_\_\_\_\_  
 Sensing distance \_\_\_\_\_  
 Output relay \_\_\_\_\_  
 Cable gland \_\_\_\_\_

## Type Selection

Housing W x H x D	Range S <sub>n</sub>	Ordering no. without timer
25 x 65 x 81 PG 13.5 cable gland	18 m	PMR 18 RG
1/2" NPT cable gland	18 m	PMR 18 RI

## Specifications

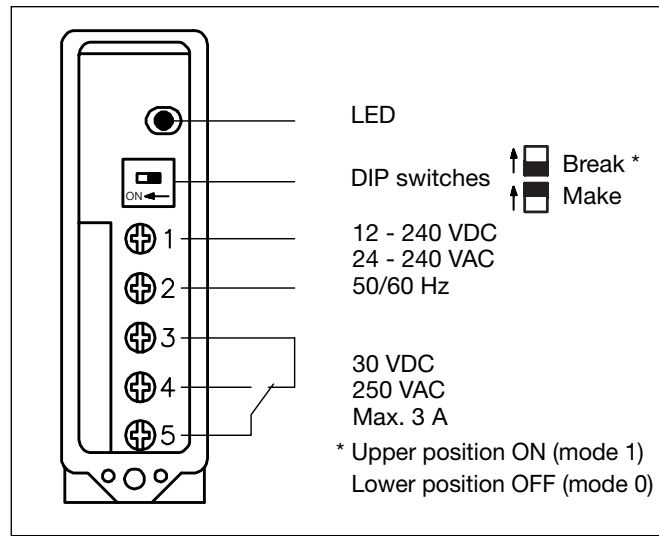
<b>Rated operating dist. (S<sub>n</sub>)</b> (0 to 5,000 lux)	18 m with reflector type ER 4, ref. target	<b>Light source</b> GaAlAs, LED, 880 nm
<b>Blind zone</b>	≤ 0.20 m	<b>Light type</b> Infrared, modulated
<b>Temperature drift</b>	≤ 0.4%/°C	<b>Optical angle</b> ± 1.5°
<b>Differential travel (H)</b>	3 to 20 %	<b>Ambient light</b> Max. 5'000 lux
<b>Rated operational volt. (U<sub>B</sub>)</b> (AC: 45 to 65 Hz)	10.8 to 264 VDC 21.6 to 264 VAC, 45 to 65 Hz	<b>Operating frequency (f)</b> 20 Hz
<b>Rated operational power</b> (Relay ON)	≤ 2 W (2.5 VA)	<b>Response time</b> OFF-ON (t <sub>ON</sub> ) ON-OFF (t <sub>OFF</sub> )
<b>Output</b>		≤ 20 ms ≤ 30 ms
Contact ratings (AgCdO)	μ (micro gap)	<b>Power ON delay (t<sub>v</sub>)</b> ≤ 300 ms (typ. 100 ms)
Resistive loads AC 1	3 A/250 VAC	<b>Output function</b> Switch selectable, make or break switching
DC 1	3 A/30 VDC	<b>Indication</b> Target detected
Small inductive loads AC 15	2 A/250 VAC	LED, yellow
DC 13	3 A/30 VDC	<b>Environment</b>
Mechanical life	≥ 40 x 10 <sup>6</sup> operations	Overvoltage category
Electrical life	≥ 5 x 10 <sup>5</sup> operations at 220 VAC - 3 A resistive load: 360 impulses/h	Pollution degree
<b>Dielectric voltage</b>	2000 VAC rms (cont./supply)	Degree of protection
<b>Sensitivity</b>	Fixed	IP 67 (IEC 60529; 60947-1)
		<b>Temperature</b>
		Operating
		Storage
		-25° to +55°C (-13° to +131°F) -30° to +80°C (-22° to +176°F)



## Specifications (cont.)

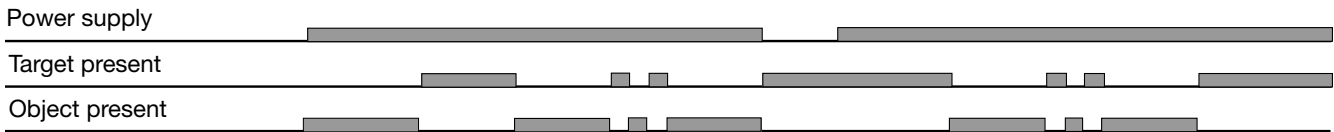
<b>Vibration</b>	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)
<b>Shock</b>	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)
<b>Rated insulation voltage</b>	250 VAC (rms)
<b>Housing material</b>	
Body	PC, grey
Front	PC, black
Cover	PC, black
Cable gland	PA, black, reinforced
Mounting bracket	Steel, galvanized
<b>Connection</b>	
Screw terminal	5 x 2 x 1 mm <sup>2</sup>
Cable gland	PG 13.5 or 1/2" NPT for cable 6 to 10 mm
<b>Weight</b>	110 g
<b>Approvals</b>	UL, CSA
<b>CE-marking</b>	Yes

## Connection Diagram

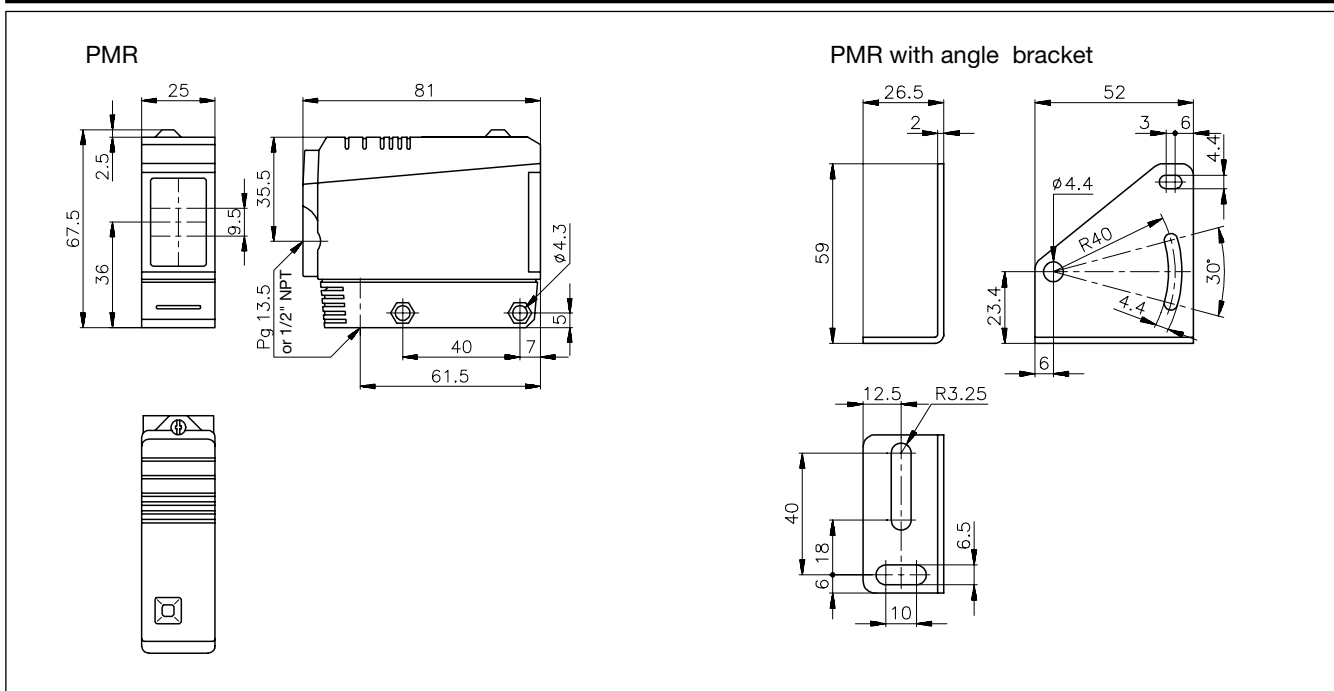


## Operation Diagram

t = Time delay  
tv = Power ON delay



## Dimensions





## Delivery Contents

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- Photoelectric switch: PMR18..
- Cable gland
- Installation instruction
- Mounting bracket
- **Packaging:** Cardboard box

## Accessories

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

For further information refer to "Accessories"