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Model Number

RLK61-8-1000-Z/31/115

Diffuse mode sensor with fixed cable

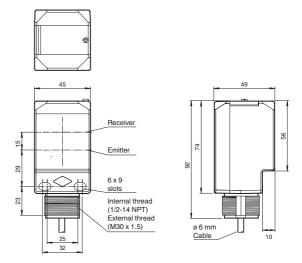
Features

- Cost-optimized series for standard tasks in a special design
- · Compact design
- Wide range of mounting options thanks to cubic housing design with M30 thread
- 360° high visibility LEDs
- Programmable ON-delay, OFF-delay, and One-shot timers
- Version for universal voltages
- Relay output

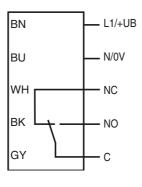
Product information

The Series 61 sensor family is a comprehensive product line, offering five sensing modes. Each sensor is equipped with four LEDs that are highly visible from all directions, indicating Power-On, target presence and marginal excess gain. The widely recognized, polycarbonate housing provides a IP67 protection degree rating. Color-coded labels are clearly printed on the housing to easily identify the sensing mode. DC models offer a 4-in-1 output while AC/DC models have a SPDT relay output rated to 3 A. All versions come standard with an integral multifunction timer, sensitivity adjustment and Light-ON/Dark-ON switch. Series 61 sensors are cross-talk protected and have a high degree of resistance to ambient lighting. Each sensor can be mounted via front and rear slots, rear dovetail guide or M30 x 1.5 mounting base. Additionally, cabled sensor models provide 1/2" - 14 NPT internal threads for use with flexible conduit.

Dimensions

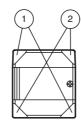


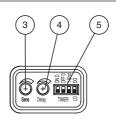
Electrical connection



The relay-functions "NC" and "NO" bear on the switching mode "Light-ON".
This complies to the default setting of the light/dark switch, located on top of the housing (factory setting).

Indicators/operating means





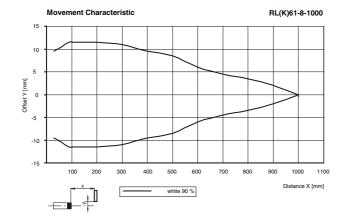
1	Operating display	green
2	Signal display	yellow
3	Sensing range adjuster	
4	Time adjuster	
5	DIP-switches	

Technical data General specifications 0 ... 1000 mm adjustable Detection range Adjustment range 120 ... 1000 mm standard white 200 mm x 200 mm Reference target Light source modulated infrared light, 850 nm Light type Diameter of the light spot approx. 17 mm at a distance of 1000 mm Angle of divergence Ambient light limit 5000 Lux; according EN 60947-5-2 Indicators/operating means Operating display 2 LEDs green Function display 2 LEDs yellow ON: object inside the scanning range OFF: object outside the scanning range Controls Light/Dark switch Controls Detection range adjuster Controls Time adjuster (0 ... 10 s) **Electrical specifications** 24 ... 240 V AC Operating voltage U_B 12 ... 240 V DC No-load supply current ≤ 35 mA Protection class II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Output circuit basis insulation of input circuit according to EN 50178, rated insulation voltage 240 V AC Power consumption P_0 ≤ 2 VA Output Switching type light/dark on, switchable Signal output Relay, 1 alternator max. 250 V AC/DC Switching voltage Switching current max. 3 A DC: max. 150 W AC: max. 750 VA Switching power Switching frequency 20 Hz Response time ≤ 25 ms Timer function DIP-switch for selection of operating modes **Ambient conditions** -40 ... 55 °C (-40 ... 131 °F) Ambient temperature -40 ... 70 °C (-40 ... 158 °F) Storage temperature Mechanical specifications **IP67** Protection degree Connection 2 m fixed cable Material PC (Polycarbonate) Housing Optical face **PMMA** 240 g Mass Compliance with standards and directives Standard conformity EN 60947-5-2:2007 Product standard IEC 60947-5-2:2007 Approvals and certificates

Curves/Diagrams

UI approval

CCC approval



cUL us

Certified by China Compulsory Certification (CCC)

Accessories

MPZB01

Mounting bracket with vertical slots

MPZB02

Mounting bracket with circular slots

MPZB06

Ball and Swivel Mounting Bracket

MPZB07

Ball and Swivel Vertical Mounting Plate

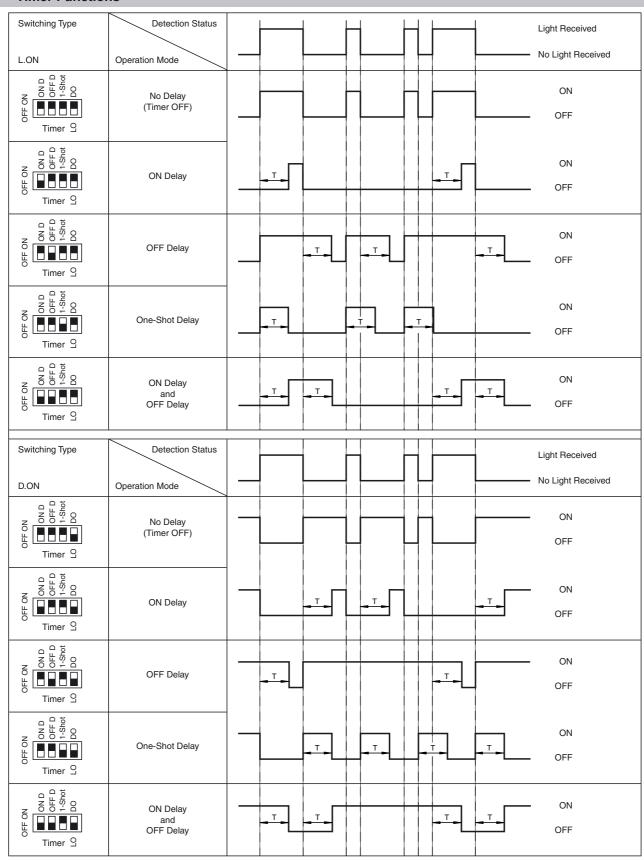
Other suitable accessories can be found at www.pepperl-fuchs.com

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Timer Functions



DIP-Switch position -

Time (T) is adjustable from 0 to 10 sec

www.pepperl-fuchs.com

Adjustment Instructions

Intended use:

The diffuse mode sensor contains the emitter and receiver in a single housing. The light from transmitter is reflected back from the target object and is evaluated by the receiver. The sensing range depends on the object color and finish. With dark or very small objects, the sensing range is reduced.

Mounting instructions

The sensor can be mounted using the through-holes or with a mounting bracket (not included with delivery).

The base surface must be flat to avoid distorting the sensor housing during mounting. It is advisable to secure the bolts and screws with washers so that the sensor does not become misaligned.

Adjustment Instructions:

Adjust the sensor on the background. If the yellow LED illuminates, reduce the sensing range using the potentiometer until the yellow LED turns off.

Object detection:

Move the target into the light beam. Position the light spot on the object. If the object is detected, the yellow LED lights up. If it does not light up, further adjust the sensing range with the potentiometer until the yellow LED lights up.

We recommend that you clean the optical interfaces and check all connections at regular intervals.

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