









# (W)

# **Model Number**

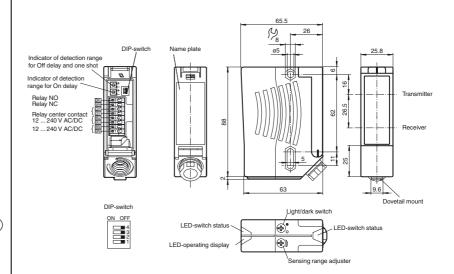
# RLK28-8-H-2000-IR-Z/31/116

Background suppression sensor with terminal compartment

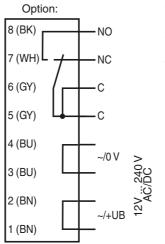
### **Features**

- Universal series with highly versatile fields of use
- Resistant against noise: reliable operation under all conditions
- Minimal black-white difference through the infrared transmission LED
- Programmable time function GAN, GAB, IAB and GAN-IAB as double function
- · Version for universal voltages

### **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).

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| Technical data                    |                |   |
|-----------------------------------|----------------|---|
| General specifications            |                |   |
| Detection range                   |                | 20 2000 mm  |
| Detection range min.              |                | 20 200 mm   |
| Detection range max.              |                | 20 2000 mm  |
| Adjustment range                  |                | 200 2000 mm   |
| Background suppression            |                | max. + 10 % of the upper limit of the detection range   |
| Light source                      |                | IRED  |
| Light type                        |                | modulated infrared light , 880 nm   |
| Black/White difference (6 %/90 %) |                | < 40 %  |
| Diameter of the light spot        |                | approx. 70 mm at a distance of 2000 mm  |
| Angle of divergence               |                | transmitter 2° receiver 2°  |
| Ambient light limit               |                | 50000 Lux   |
| Functional safety related parame  | ters           |   |
| MTTF <sub>d</sub>                 |                | 620 a   |
| Mission Time (T <sub>M</sub> )    |                | 20 a  |
| Diagnostic Coverage (DC)          |                | 0 %   |
| Indicators/operating means        |                |   |
| Operation indicator               |                | LED green   |
| Function indicator                |                | 2 LEDs vellow   |
|                                   |                | ON: object inside the scanning range OFF: object outside the scanning range   |
| Control elements                  |                | Sensing range adjuster , Light-on/dark-on changeover switch   |
| Electrical specifications         |                |   |
| Operating voltage                 | U <sub>B</sub> | 12 240 V AC/DC  |
| Power consumption                 | P <sub>0</sub> | ≤ 3.5 VA  |
| Output                            |                |   |
| Switching type                    |                | light/dark on, switchable (selectable, light/dark switching is only activated if the receiver has 'dark on' selected.)  |
| Signal output                     |                | Relay, 1 alternator   |
| Switching voltage                 |                | max. 250 V AC/DC  |
| Switching current                 |                | max. 2 A  |
| Switching power                   |                | DC: max. 50 W AC: max. 500 VA   |
| Switching frequency               | f              | 25 Hz   |
| Response time                     |                | 20 ms   |
| Timer function                    |                | ON delay (GAN), OFF delay (GAB), one shot (IAB), ON delayone shot (GAN-IAB), ON delay-OFF delay (GAN-GAB), programmable adjustment interval 0.1 10 s  |
| Conformity                        |                |   |
| Product standard                  |                | EN 60947-5-2  |
| Ambient conditions                |                |   |
| Ambient temperature               |                | -40 60 °C (-40 140 °F)  |
| Storage temperature               |                | -40 75 °C (-40 167 °F)  |
| Mechanical specifications         |                |   |
| Housing width                     |                | 25.8 mm   |
| Housing height                    |                | 88 mm   |
| Housing depth                     |                | 65.5 mm   |
| Degree of protection              |                | IP67  |
| Connection                        |                | terminal compartment with 8 spring-loaded terminals for wire cross section 0.5 $\dots$ 1.5 mm <sup>2</sup> , insulation stripping 7.5 $\dots$ 8.5 mm  |
|                                   |                | M16 x 1.5 cable gland   |
| Material                          |                | DI II ADO   |
| Housing                           |                | Plastic ABS   |
| Optical face                      |                | Plastic pane  |
| Mass                              |                | 112 g   |
| Approvals and certificates        |                |   |
| EAC conformity                    |                | TR CU 020/2011<br>TR CU 004/2011  |
| Protection class                  |                | II, rated insulation voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Output circuit insulated from control circuit in accordance with IEC 61140. Caution!  The protection class 2 is only valid when the terminal compartment is closed.                    |
| UL approval                       |                | E87056, cULus Listed <b>Caution:</b> This equipment is considered as open-type equipment. It must be mounted within an enclosure, that is suitably designed for protection against internal fire and personal injury resulting from accessibility to live parts according UL 508. |
| CCC approval                      |                | Certified by China Compulsory Certification (CCC)   |
|                                   |                |   |

### Accessories

# **OMH-05**

Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm

## **OMH-07**

Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm

#### **OMH-21**

Mounting bracket

#### **OMH-22**

Mounting bracket

# OMH-MLV11-K

dove tail mounting clamp

#### OMH-RLK29

Mounting bracket

#### OMH-RLK29-HW

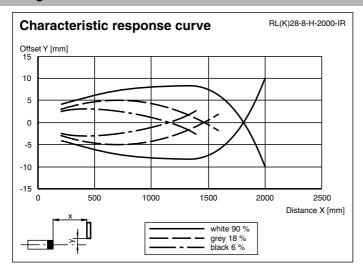
Mounting bracket for rear wall mounting

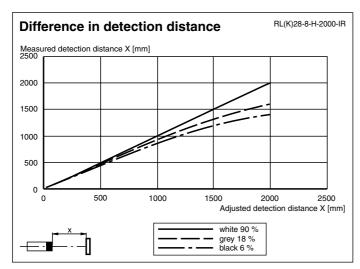
#### OMH-RL28-C

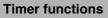
Weld slag cover model

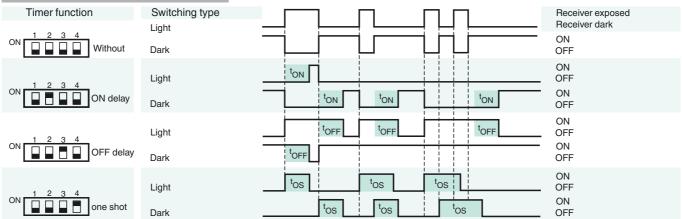
Other suitable accessories can be found at www.pepperl-fuchs.com

# **Curves/Diagrams**









Time  $t_{ON}$ ,  $t_{OFF}$  and  $t_{OS}$  are adjustable from 0.1 to 10 seconds. The Light-/Dark-Switch (Left, outer switch) is shown in the "Dark ON" position.

| Туре | Description                      | Notes                    |
|------|----------------------------------|--------------------------|
| -Z   | OFF delay timer                  | Adjustable time interval |
|      | one shot timer                   | (0.1 s - 10 s)           |
|      | ON delay timer                   |                          |
|      | ON delay timer / OFF delay timer |                          |
|      | ON delay timer / one shot timer  |                          |

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