



Model Number

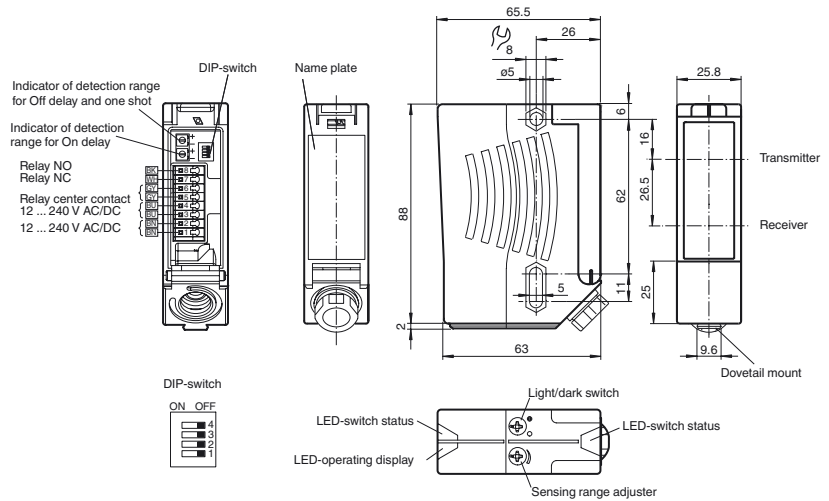
RLK28-8-H-400-IR-Z/31/116

Background suppression sensor with terminal compartment

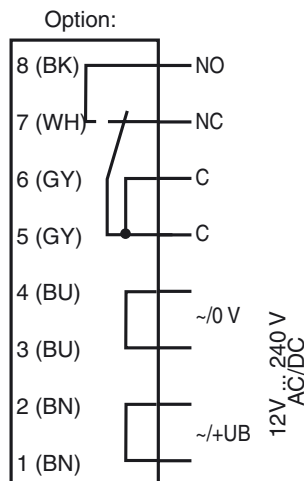
Features

- 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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Subject to modifications without notice

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Technical data**General specifications**

Detection range	20 ... 400 mm
Detection range min.	20 ... 150 mm
Detection range max.	20 ... 400 mm
Adjustment range	150 ... 400 mm
Background suppression	max. + 10 % of the upper limit of the detection range
Light source	IRE D
Light type	modulated infrared light , 880 nm
Black/White difference (6 %/90 %)	< 5 %
Diameter of the light spot	approx. 14 mm at a distance of 400 mm
Angle of divergence	transmitter 2° receiver 2°
Ambient light limit	50000 Lux

Functional safety related parameters

MTTF _d	880 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Operating display	LED 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

Electrical specifications

Operating voltage	U _B	12 ... 240 V AC/DC
Power consumption	P ₀	≤ 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 delay-one shot (GAN-IAB), ON delay-OFF delay (GAN-GAB), programmable adjustment interval 0.1 ... 10 s	

Ambient conditions

Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)
Storage temperature	-40 ... 75 °C (-40 ... 167 °F)

Mechanical specifications

Protection degree	IP67
Connection	terminal compartment with 8 spring-loaded terminals for wire cross section 0.5 ... 1.5 mm ² , insulation stripping 7.5 ... 8.5 mm, M16 x 1.5 cable gland
Material	
Housing	Plastic ABS
Optical face	Plastic pane
Mass	112 g

Compliance with standards and directives

Directive conformity	Low Voltage Directive 2006/95/EC EMC Directive 2004/108/EC
Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007

Approvals and certificates

Protection class	II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Caution! The protection class 2 is only valid when the terminal compartment is closed.
UL approval	cULus Listed , Class 2 power source
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

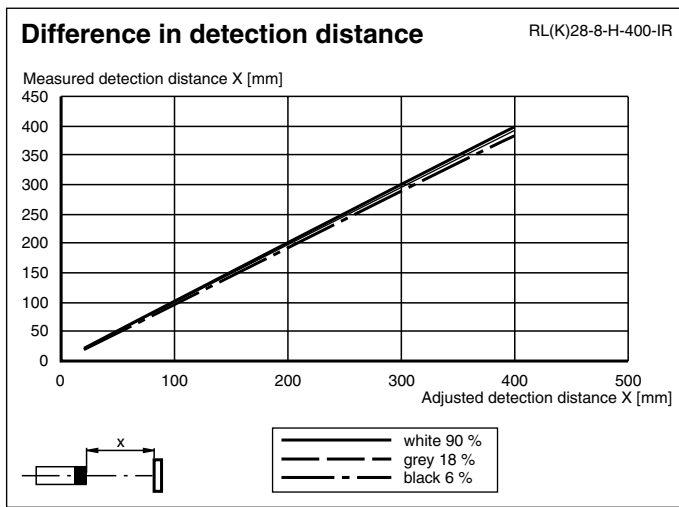
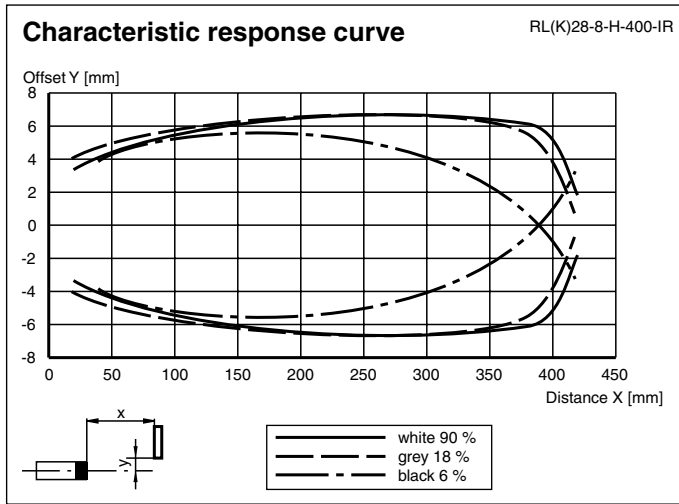
Mounting bracket for rear wall mounting

OMH-RL28-C

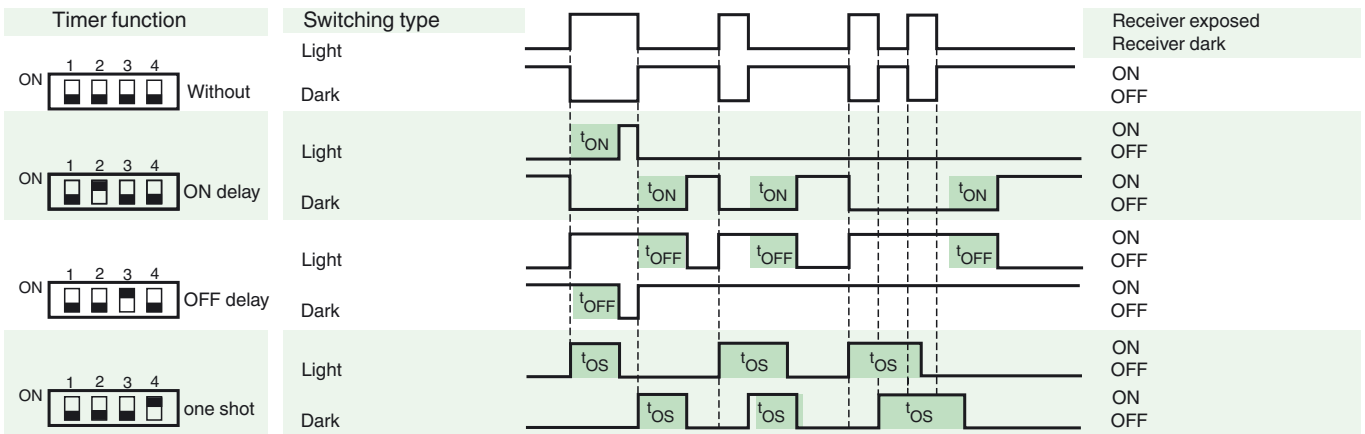
Weld slag cover model

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

Curves/Diagrams



Timer functions



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.

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

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