



Model Number

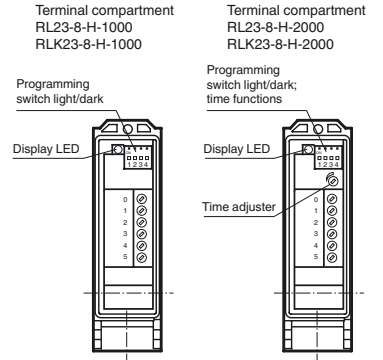
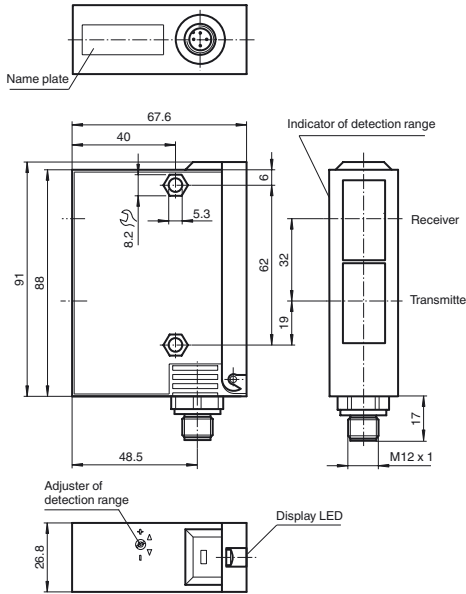
RL23-8-H-2000-IR/49/92

Background suppression sensor with 4-pin, M12 x 1 connector

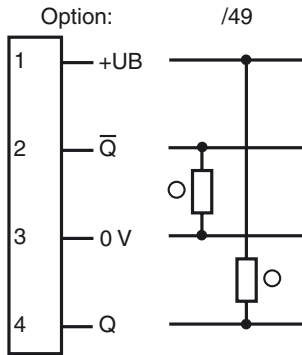
Features

- Adjustable background suppression
- Infrared light
- Timer function
- Sturdy plastic housing
- Optical surface made of scratch-resistant glass

Dimensions

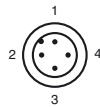


Electrical connection



○ = Light on
● = Dark on

Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

Technical data**General specifications**

Detection range	50 ... 2000 mm
Detection range min.	50 ... 150 mm
Detection range max.	50 ... 3000 mm
Light source	IREDD
Light type	modulated infrared light
Black/White difference (6 %/90 %)	< 20 %
Diameter of the light spot	50 mm at 2000 mm sensor range
Angle of divergence	1.5 °
Ambient light limit	5000 Lux

Functional safety related parameters

MTTF _d	540 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	60 %

Indicators/operating means

Function indicator	LED yellow, lights up with receiver lit
Control elements	Programming switch for light/dark switching
Control elements	Sensing range adjuster
Control elements	Time adjuster

Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
Ripple		10 %
No-load supply current	I ₀	100 mA

Output

Switching type	light/dark on	
Signal output	1 PNP and 1 NPN short-circuit protected, reverse polarity protected	
Switching voltage	30 V DC	
Switching current	max. 200 mA	
Switching frequency	f	70 Hz
Response time		5 ms
Timer function	ON delay (GAN), OFF delay (GAB), one shot (IAB), programmable, adjustment range 0.1 ... 10 s	

Conformity

Product standard	EN 60947-5-2
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Ambient conditions

Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-20 ... 75 °C (-4 ... 167 °F)

Mechanical specifications

Housing width	26.8 mm
Housing height	91 mm
Housing depth	67.6 mm
Degree of protection	IP65
Connection	4-pin, M12 x 1 connector
Material	
Housing	Terluran® GV15
Optical face	glass
Mass	180 g

Approvals and certificates

UL approval	cULus
CCC approval	CCC approval / marking not required for products rated ≤36 V

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

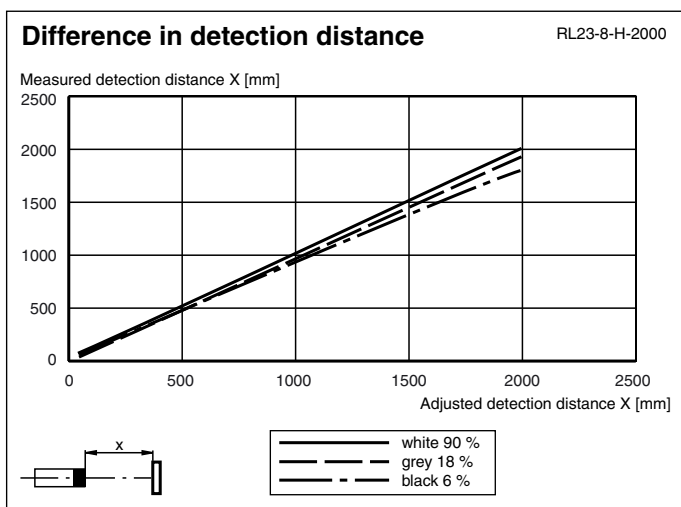
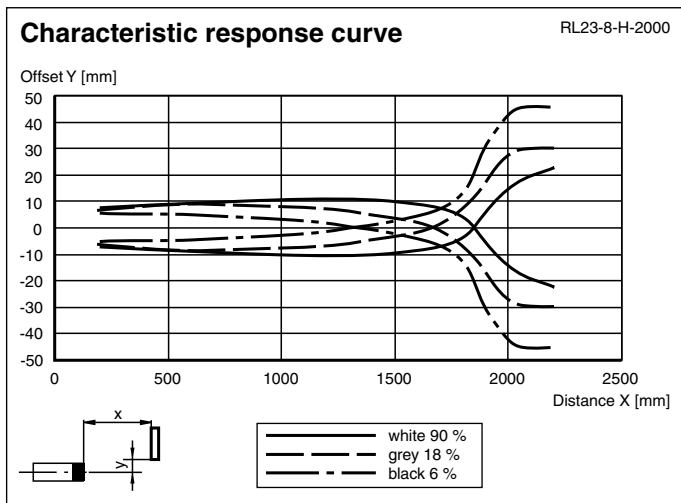
Mounting bracket

OMH-RLK29-HW

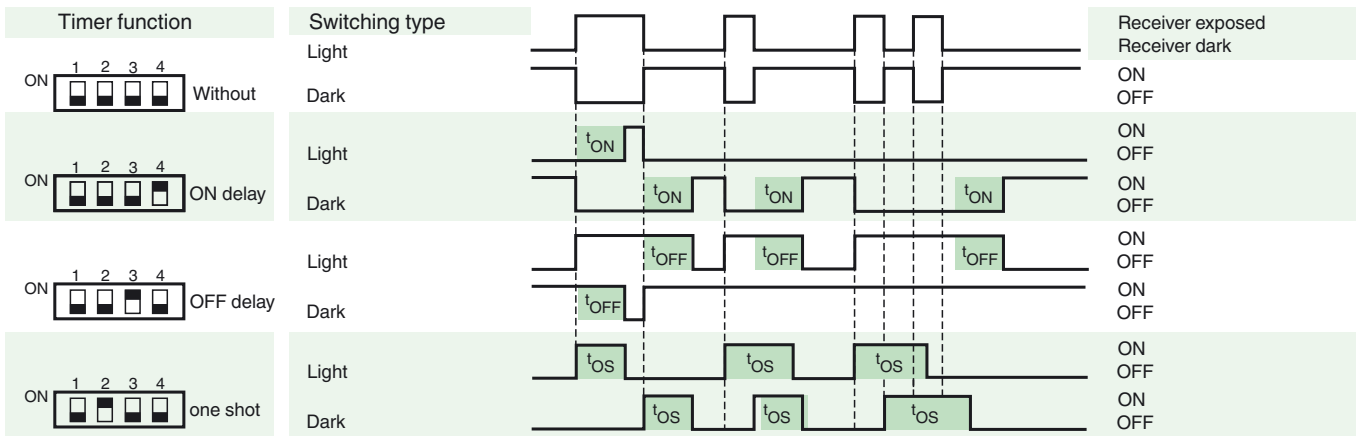
Mounting bracket for rear wall mounting

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

Curves/Diagrams



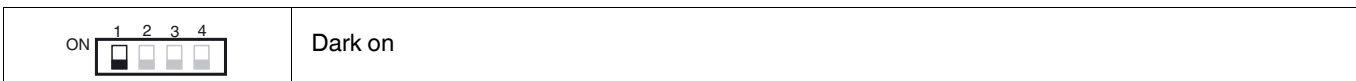
Timer functions



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	

Light/Dark switch



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Light on