



Model Number

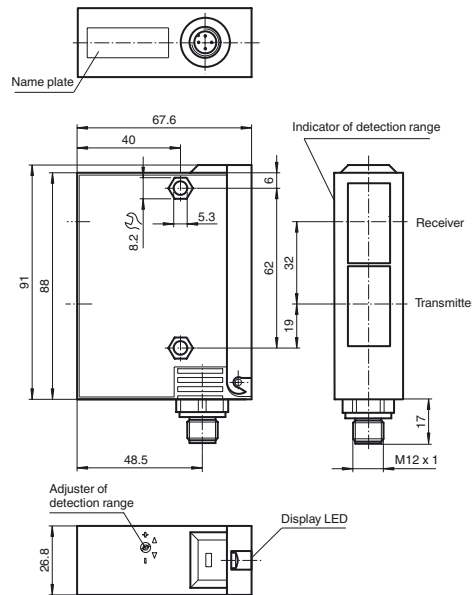
RL23-8-H-1000-IR/49/92/104

Background suppression sensor
with M12, 4-pin metal connector

Features

- Adjustable background suppression
- Infrared light
- Sturdy plastic housing
- Optical surface made of scratch-resistant glass
- Protected against mutual interference (no cross-talk)

Dimensions

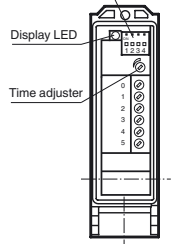
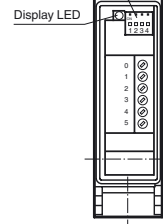


Terminal compartment
RL23-8-H-1000
RLK23-8-H-1000

Terminal compartment
RL23-8-H-2000
RLK23-8-H-2000

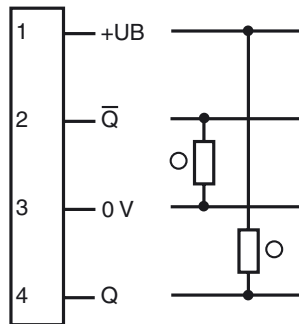
Programming
switch light/dark

Programming
switch light/dark;
time functions



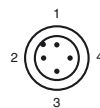
Electrical connection

Option: /49



○ = 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)

Technical data

General specifications

Detection range	50 ... 1000 mm
Detection range min.	50 ... 150 mm
Detection range max.	50 ... 1000 mm
Light source	IREd
Light type	modulated infrared light
Black/White difference (6 %/90 %)	< 10 %
Diameter of the light spot	25 mm at 1000 mm sensor range
Angle of divergence	1.5 °
Ambient light limit	12000 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

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 10 Hz
Response time	50 ms

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

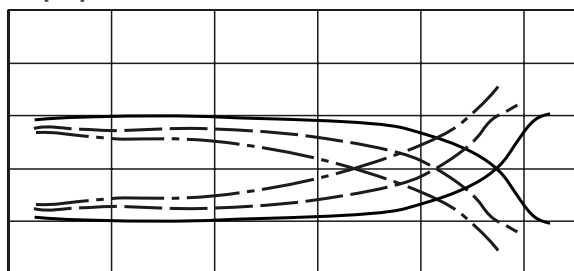
Approvals and certificates

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

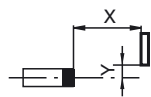
Curves/Diagrams

Characteristic response curve

Offset Y [mm]



Distance X [mm]



—	white 90 %
- - -	grey 18 %
- . - .	black 6 %

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-22

Mounting bracket

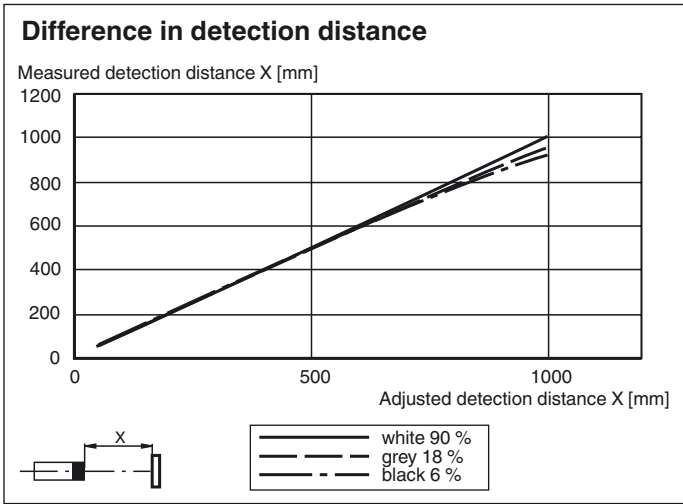
OMH-21

Mounting bracket

OMH-RLK29-HW

Mounting bracket for rear wall mounting

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



Light/Dark switch

ON 1 2 3 4 	Dark on
ON 1 2 3 4 	Light on