



Model Number

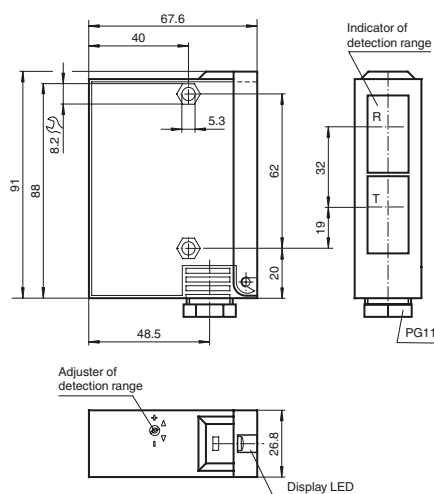
RL23-8-H-1000-IR/104/116/125

Background suppression sensor
with terminal compartment

Features

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

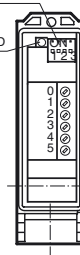
Dimensions



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

Programming
switch light/dark

Display LED



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

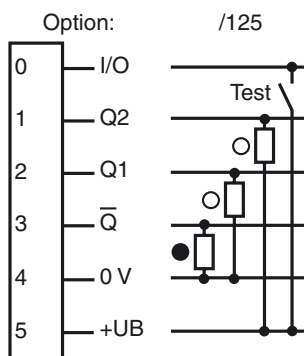
Programming
switch light/dark;
time functions

Display LED

Time adjuster



Electrical connection



○ = Light on
● = Dark on

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

Input

Test input	emitter deactivation at +U _B
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Output

Switching type	light/dark on	
Signal output	2 PNP, complementary, 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

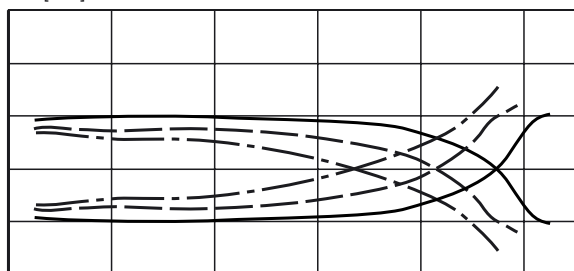
Housing width	26.8 mm
Housing height	91 mm
Housing depth	67.6 mm
Degree of protection	IP65
Connection	terminal compartment
Material	
Housing	Terluran® GV15
Optical face	glass
Mass	180 g

Approvals and certificates

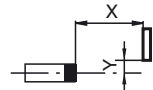
UL approval	cULus
CCC approval	CCC approval / marking not required for products rated ≤36 V

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-21

Mounting bracket

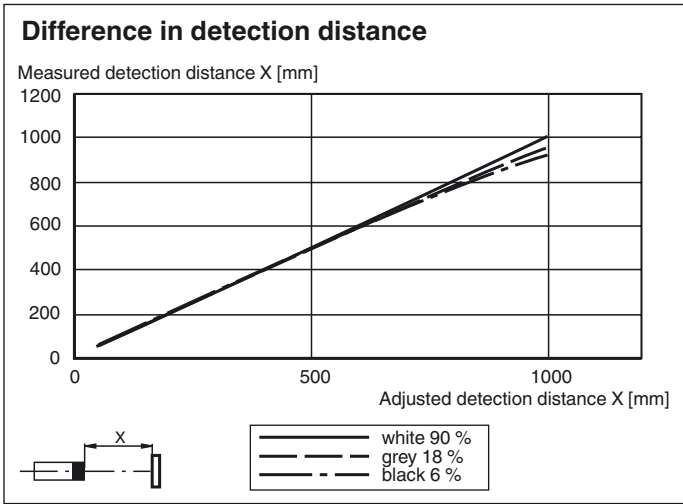
OMH-22

Mounting bracket

OMH-RLK29-HW

Mounting bracket for rear wall mounting

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



Light/Dark switch

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