



**Model Number**

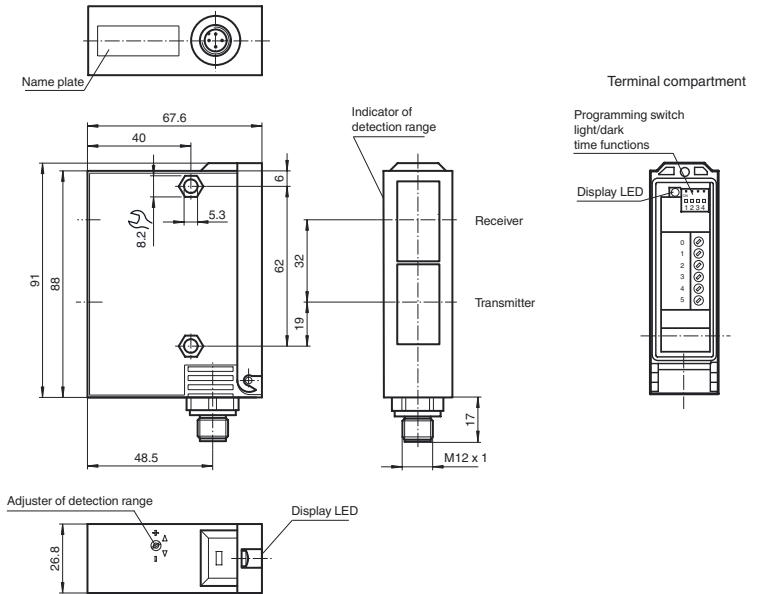
**RL23-8-H-500-RT/47/92/104**

Background suppression sensor  
with M12, 4-pin metal connector

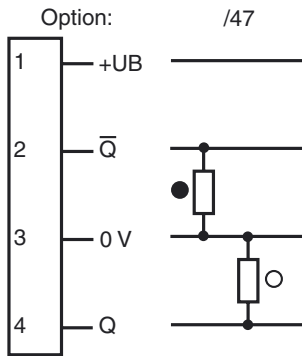
**Features**

- Adjustable background suppression
- Visible red light
- Sturdy plastic housing
- Optical surface made of scratch-resistant glass
- Protected against mutual interference

**Dimensions**

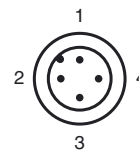


**Electrical connection**



○ = Light on  
● = Dark on

**Pinout**



Release date: 2011-01-06 14:01 Date of issue: 2011-01-26 419471\_ENG.xml

**Technical data****General specifications**

Detection range	50 ... 500 mm
Detection range min.	50 ... 150 mm
Detection range max.	50 ... 500 mm
Light source	LED
Light type	modulated visible red light
Black/White difference (6 %/90 %)	< 5 %
Diameter of the light spot	12 mm at 500 mm sensor range
Angle of divergence	1.5 °
Ambient light limit	12000 Lux

**Functional safety related parameters**

MTTF <sub>d</sub>	540 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	60 %

**Indicators/operating means**

Function display	LED yellow, lights up with receiver lit
Controls	Programming switch for light/dark switching
Controls	Detection range adjuster

**Electrical specifications**

Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Ripple		10 %
No-load supply current	I <sub>0</sub>	100 mA

**Output**

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

**Ambient conditions**

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

**Mechanical specifications**

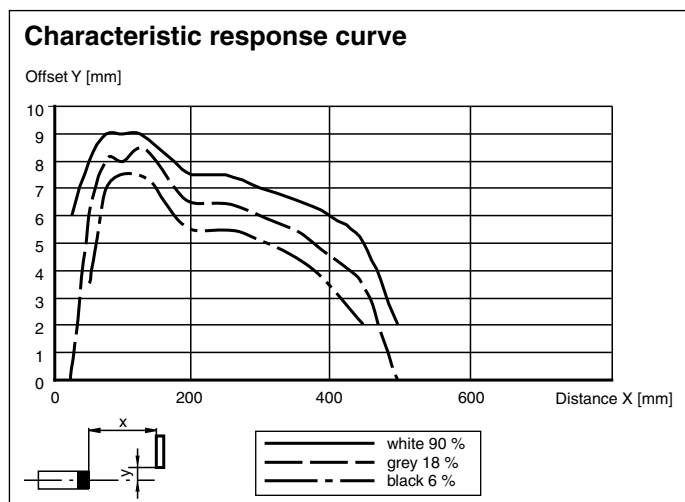
Protection degree	IP65
Connection	connector M12 x 1, 4-pin
Material	
Housing	Terluran GV15
Optical face	glass
Mass	180 g

**Compliance with standards and directives**

Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007

**Approvals and certificates**

UL approval	cULus
CCC approval	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

**Curves/Diagrams****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

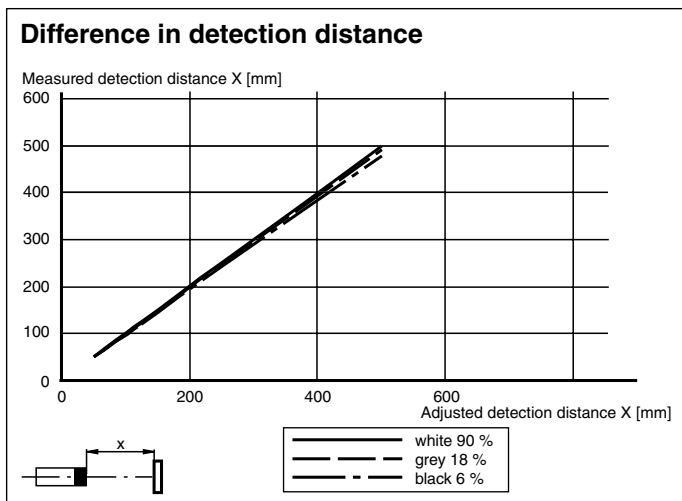
**OMH-22**

Mounting bracket

**OMH-RLK29-HW**

Mounting bracket for rear wall mounting

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)



### Light/Dark switch

ON	Dark on
ON	Light on

Release date: 2011-01-06 14:01 Date of issue: 2011-01-26 419471\_ENG.xml