



**Model Number**

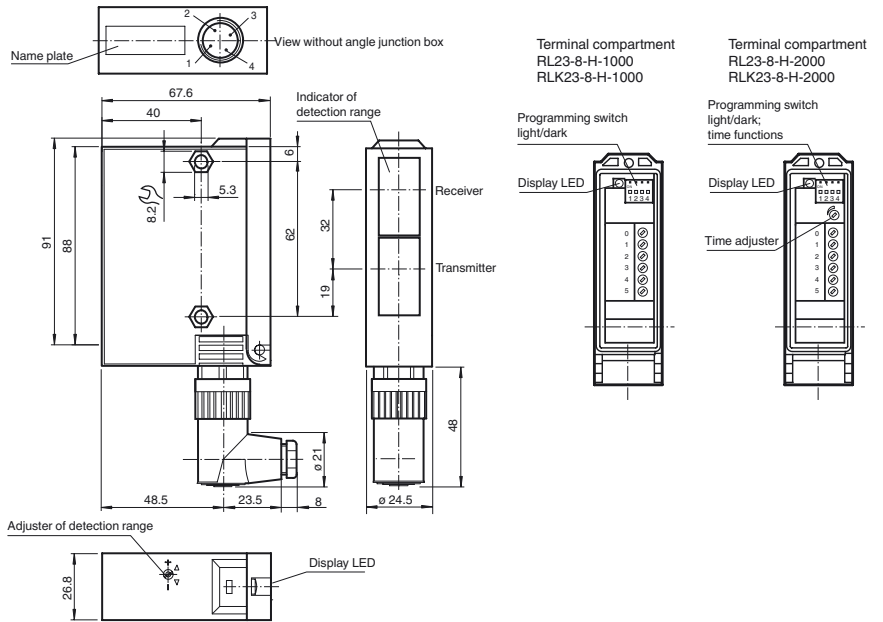
**RL23-8-H-2000-IR/49/74b**

Background suppression sensor with 4-pin, M18 x 1 plastic connector

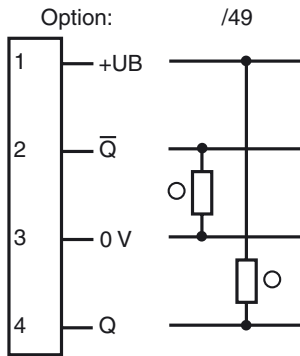
**Features**

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

**Dimensions**

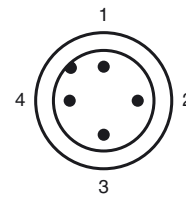


**Electrical connection**



○ = Light on  
● = Dark on

**Pinout**



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Subject to modifications without notice

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

Detection range	50 ... 2000 mm
Detection range min.	50 ... 150 mm
Detection range max.	50 ... 3000 mm
Light source	IREL
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 <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
Controls	Time 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	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

**Ambient conditions**

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

**Mechanical specifications**

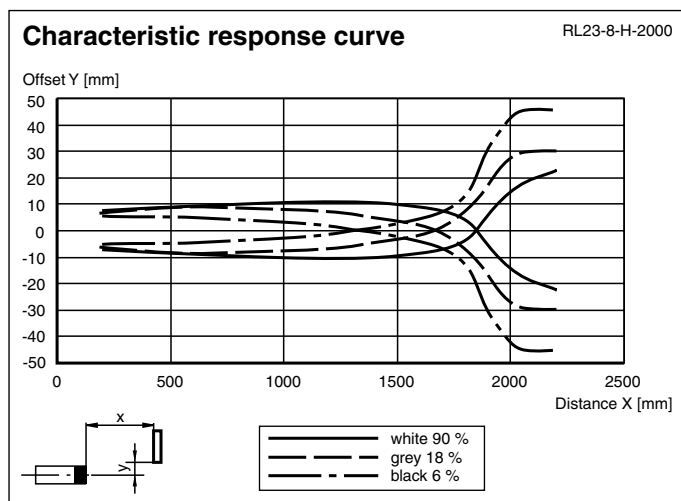
Protection degree	IP65
Connection	Connector M18 x 1, 4-pin with unwired angled cable socket
Material	
Housing	Terluran GV15
Optical face	glass
Mass	180 g

**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
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**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

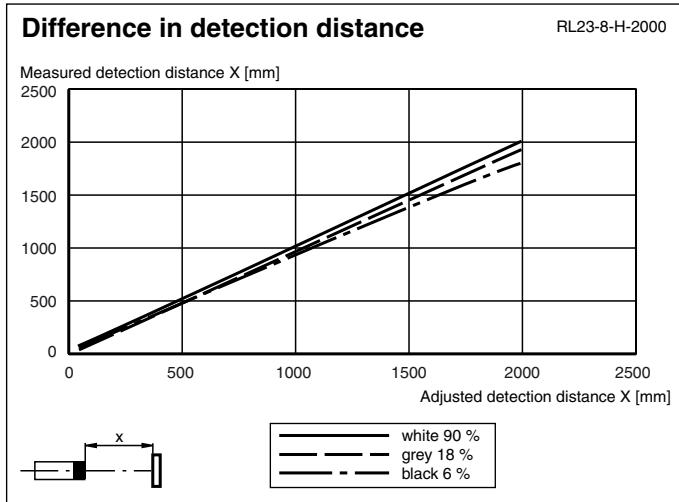
**OMH-22**

Mounting bracket

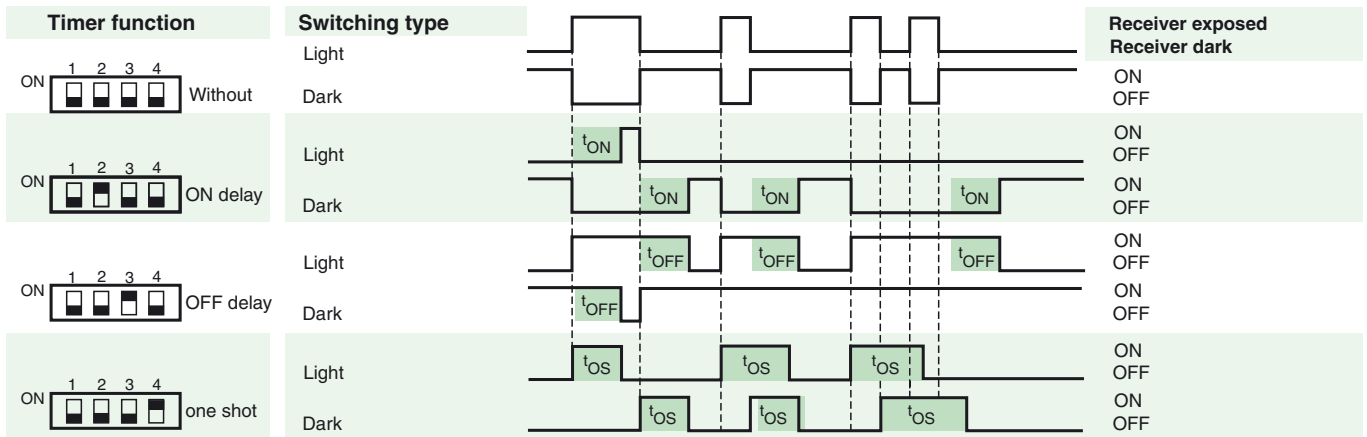
**OMH-RLK29-HW**

Mounting bracket for rear wall mounting

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



### 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

Dark on	
Light on	

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