

Background suppression sensor RL23-8-H-1000-IR/44/116/125

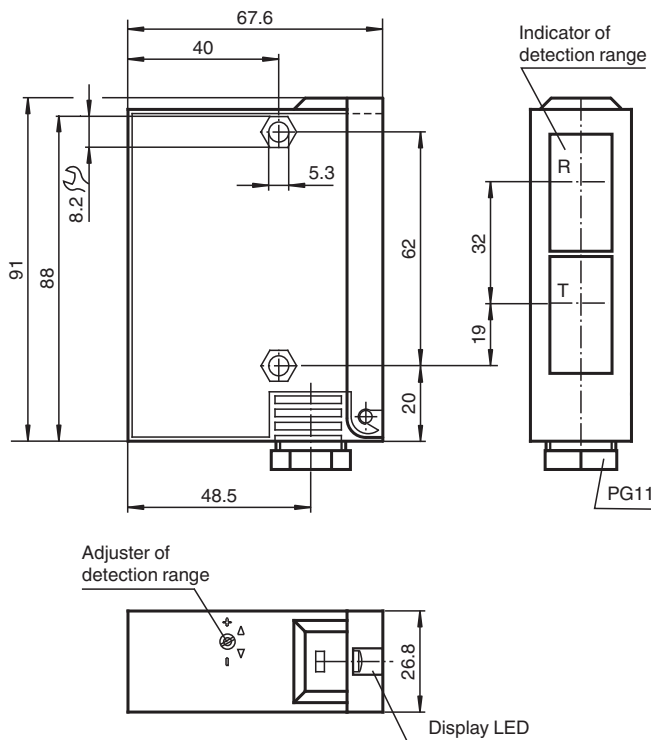


- Adjustable background suppression
- Infrared light
- Sturdy plastic housing
- Optical surface made of scratch-resistant glass
- Extra vibration proof version

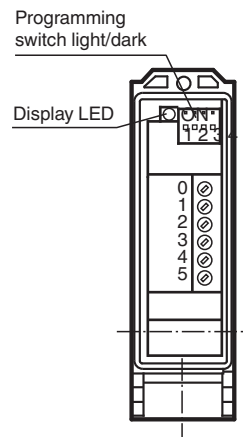
Background suppression sensor



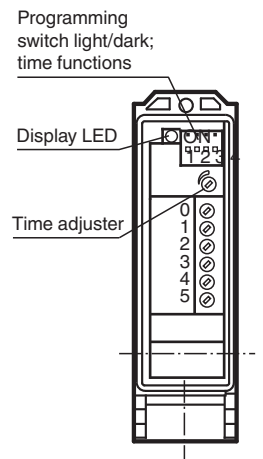
Dimensions



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



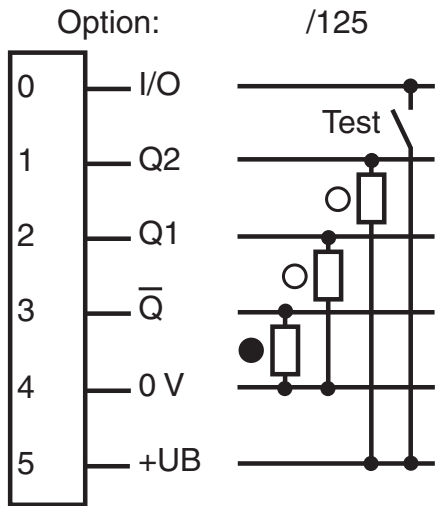
Terminal compartment
RL23-8-H-2000
RLK23-8-H-2000



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
Opening angle			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
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
Approvals and certificates			
EAC conformity			TR CU 020/2011
UL approval			cULus
CCC approval			CCC approval / marking not required for products rated ≤36 V
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

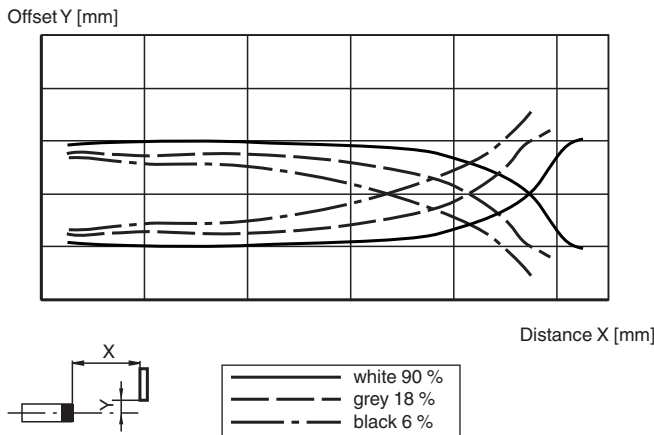
Connection Assignment



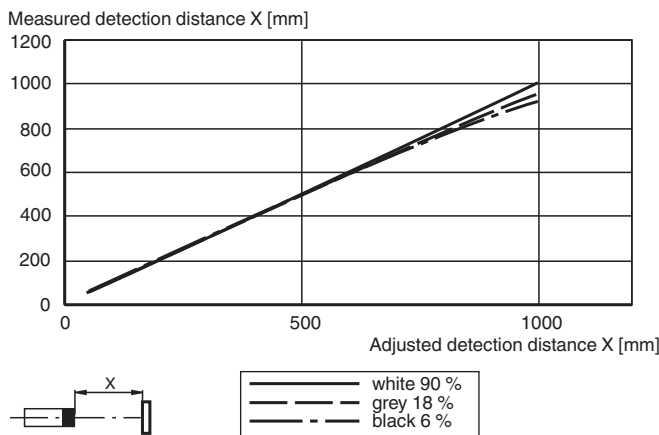
○ = Light on
● = Dark on

Characteristic Curve

Characteristic response curve



Difference in detection distance



Release date: 2022-08-02 Date of issue: 2022-08-03 Filename: 419455_eng.pdf

Accessories

	OMH-05	Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm
	OMH-21	Mounting bracket: mounting aid for sensors in the RL* series
	OMH-22	Mounting aid for RL* series
	OMH-RLK29-HW	Mounting bracket for rear wall mounting

Light-on/dark-on changeover switch

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

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