

Background suppression sensor

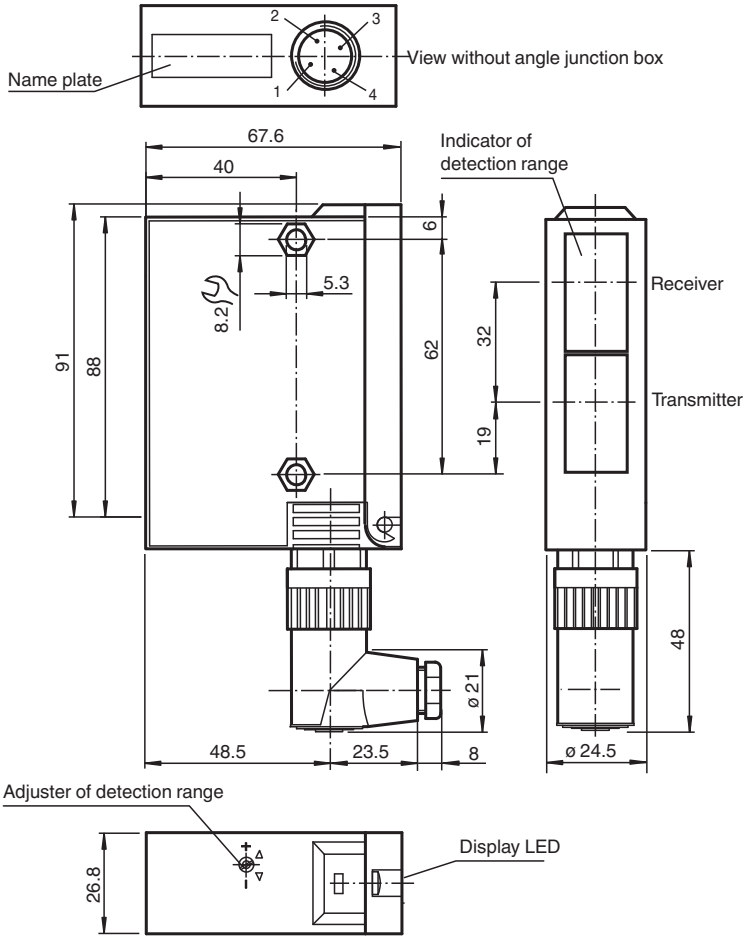
RL23-8-H-1000-IR/47/74b

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

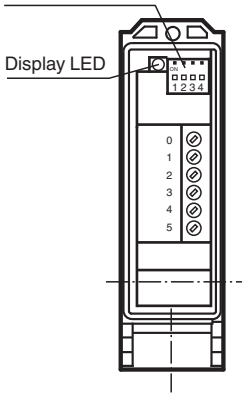
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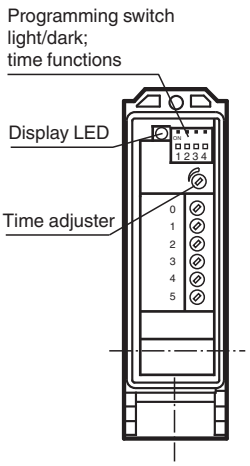
Dimensions



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



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



Technical Data

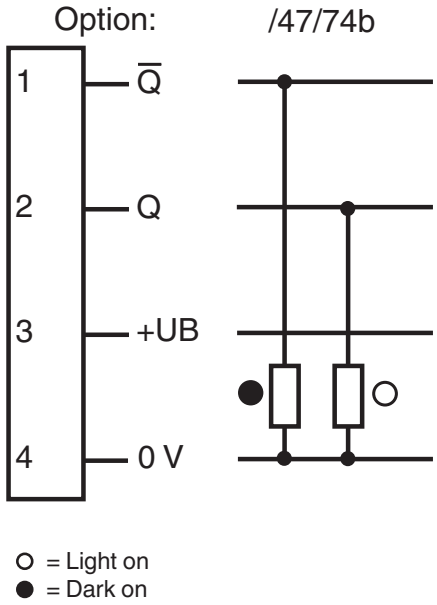
General specifications		
Detection range		50 ... 1000 mm
Detection range min.		50 ... 150 mm
Detection range max.		50 ... 1000 mm
Light source		IRED
Light type		modulated infrared light
Black-white difference (6 %/90 %)		< 10 %
Diameter of the light spot		25 mm at 1000 mm sensor range
Opening angle		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

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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	70 Hz
Response time		5 ms
Conformity		
Product standard		EN 60947-5-2
Approvals and certificates		
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		
Degree of protection		IP65
Connection		Connector M18 x 1, 4-pin with unwired angled cable socket
Material		
Housing		Terluran® GV15
Optical face		glass
Mass		180 g
Dimensions		
Height		91 mm
Width		26.8 mm
Depth		67.6 mm

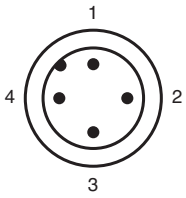
Connection Assignment



○ = Light on
● = Dark on

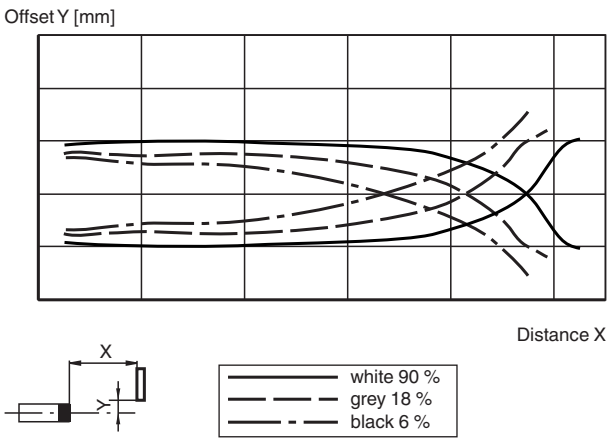
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Connection Assignment

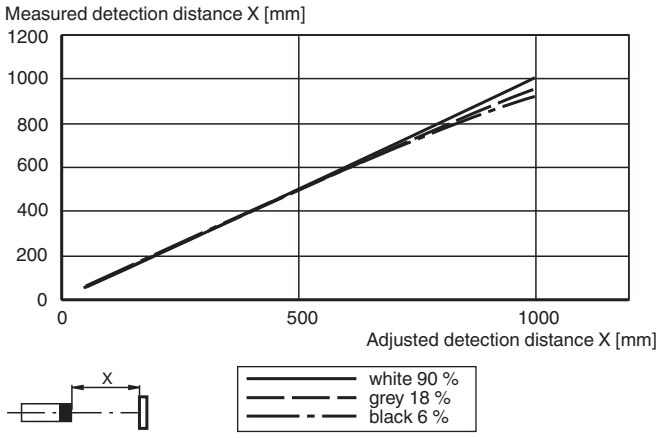


Characteristic Curve

Characteristic response curve

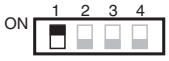


Difference in detection distance



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Light-on/dark-on changeover switch

	Dark on
	Light on

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