



Background suppression sensor

RL23-8-H-2000-IR/47/74a

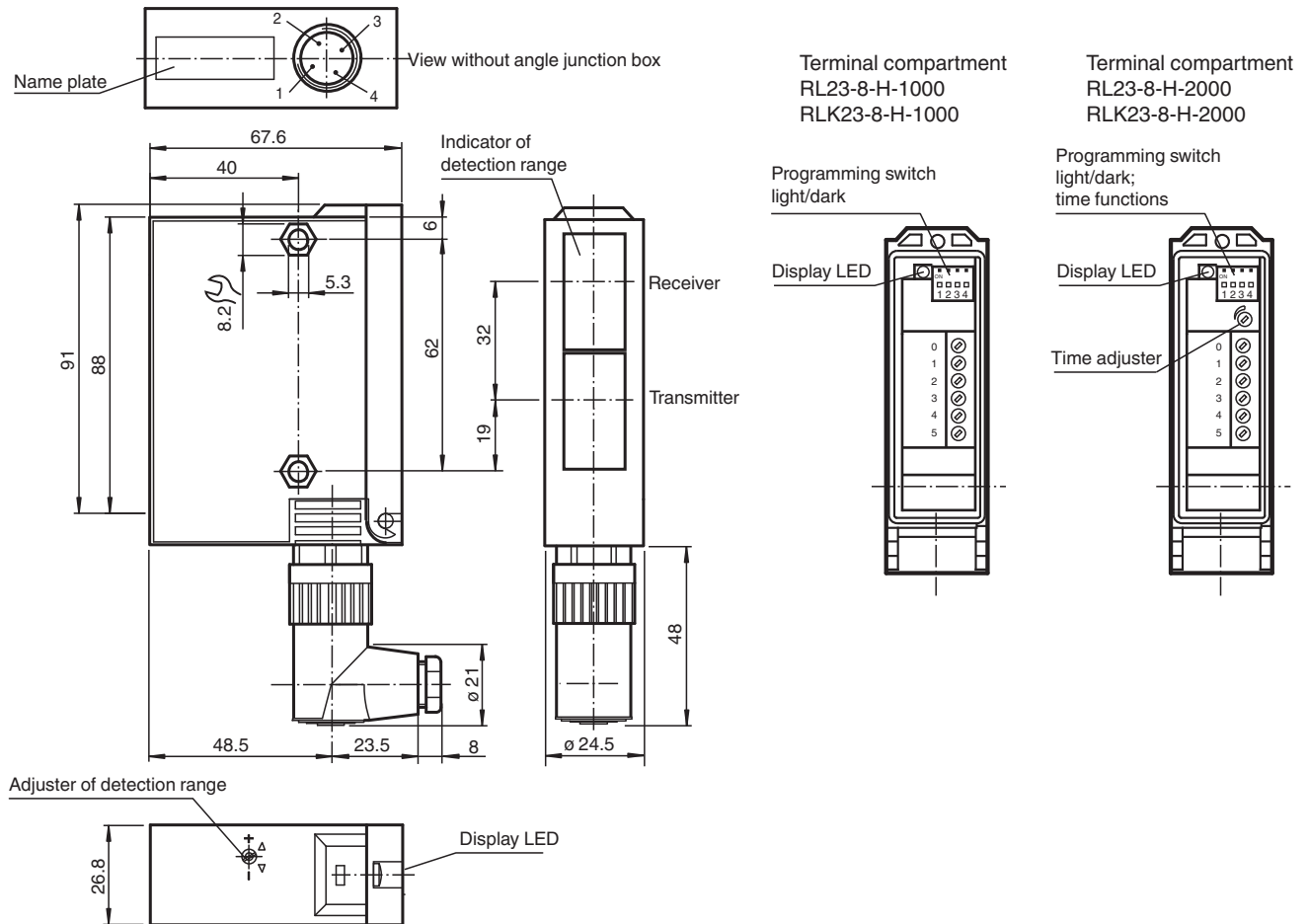


- Adjustable background suppression
- Infrared light
- Timer function
- Sturdy plastic housing
- Optical surface made of scratch-resistant glass

Background suppression sensor



Dimensions



Technical Data

General specifications

Detection range	50 ... 2000 mm
Detection range min.	50 ... 150 mm
Detection range max.	50 ... 3000 mm
Light source	IRED
Light type	modulated infrared light
Black-white difference (6%/90%)	< 20 %
Diameter of the light spot	50 mm at 2000 mm sensor range
Opening angle	1.5 °
Ambient light limit	5000 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
Control elements	Time adjuster

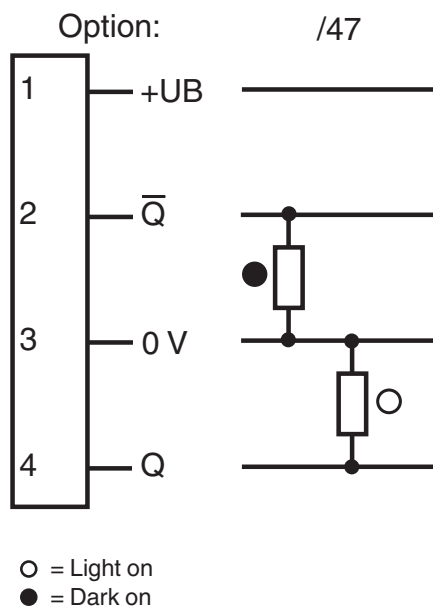
Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
Ripple		10 %

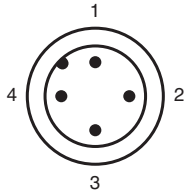
Technical Data

No-load supply current	I_0	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	70 Hz
Response time		5 ms
Timer function		ON delay (GAN), OFF delay (GAB), one shot (IAB), programmable, adjustment range 0.1 ...10 s
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		
Housing width		26.8 mm
Housing height		91 mm
Housing depth		67.6 mm
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

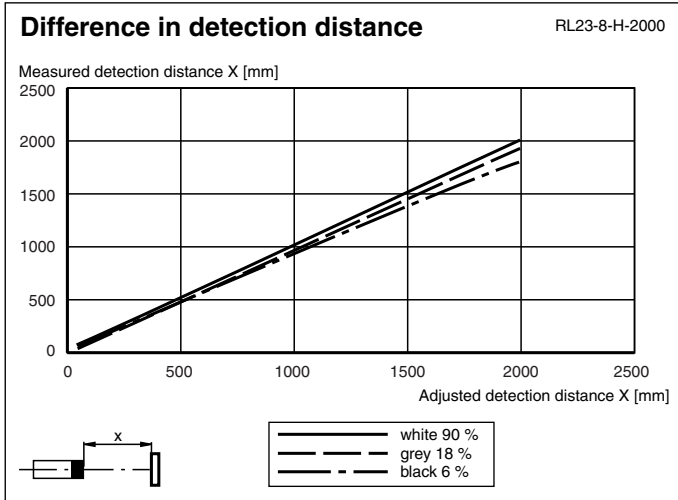
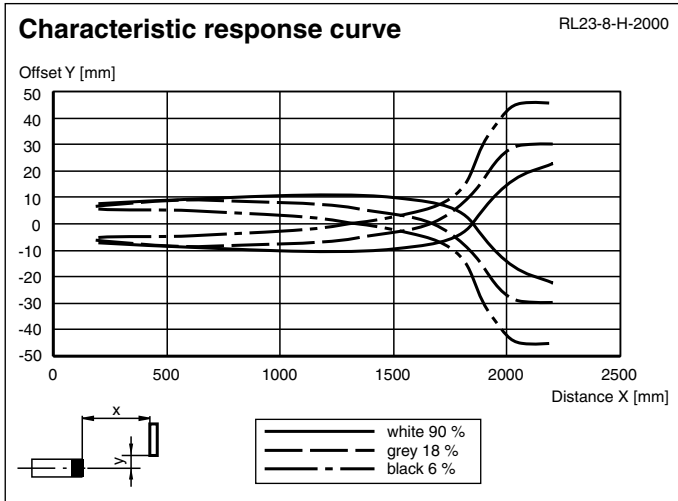
Connection Assignment







Connection Assignment



Characteristic Curve



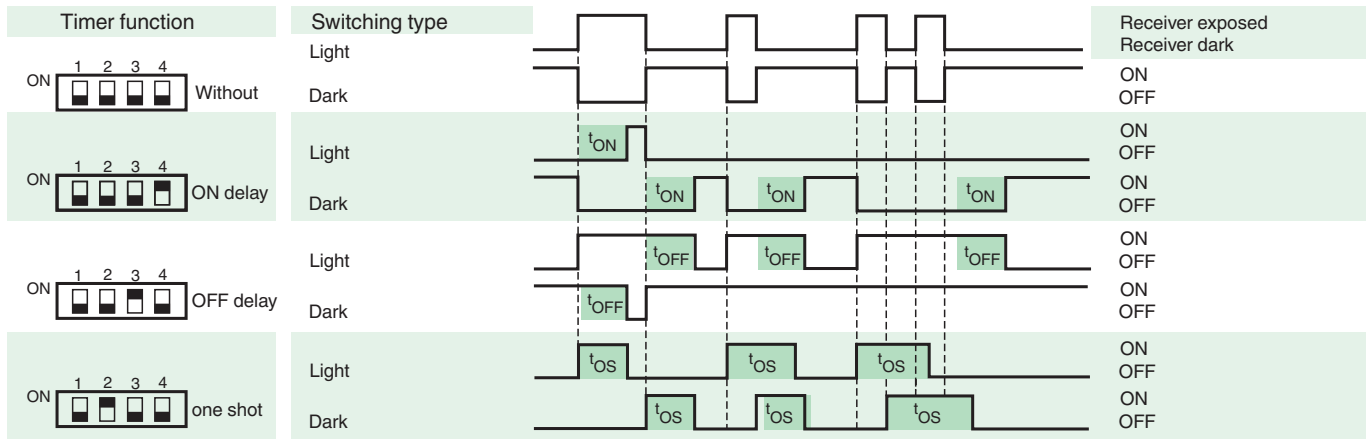
Accessories

	OMH-05	Mounting aid for round steel \varnothing 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

Release date: 2023-03-28 Date of issue: 2023-03-28 Filename: 419452_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".


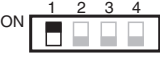
Timer functions



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-on/dark-on changeover switch

	Dark on
	Light on