



# Background suppression sensor RLK23-8-H-2000-IR/31/104/116

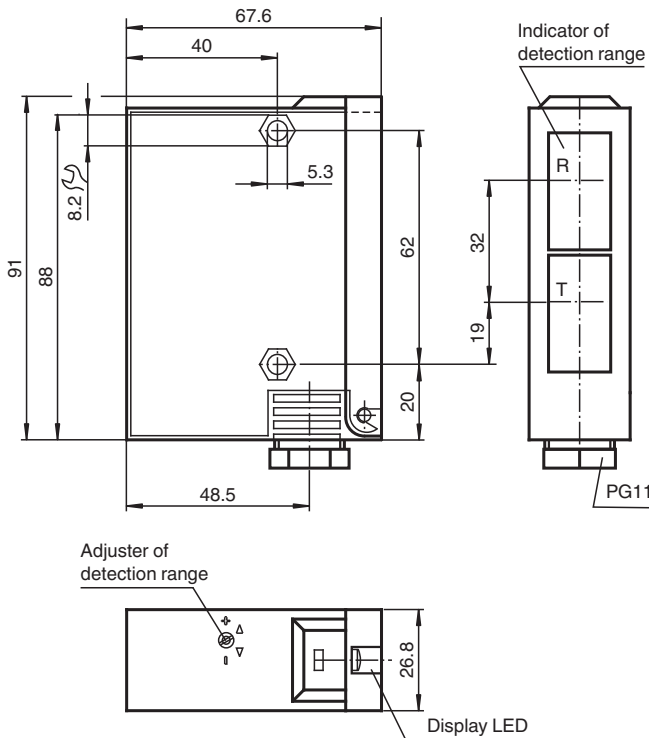


- Adjustable background suppression
- Infrared light
- Timer function
- Sturdy plastic housing
- Optical surface made of scratch-resistant glass
- Protected against mutual interference (no cross-talk)

Background suppression sensor

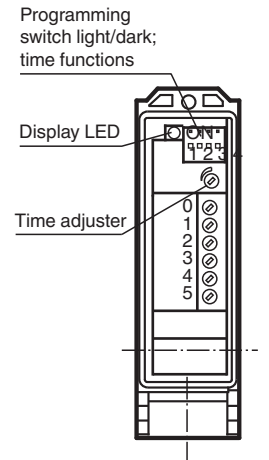
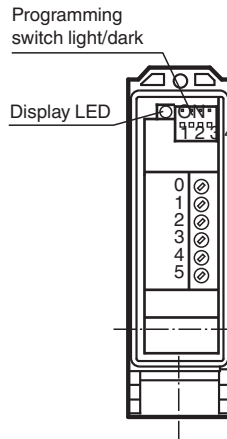


## Dimensions



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 ... 2000 mm
Detection range min.	50 ... 150 mm

Release date: 2024-02-01 Date of issue: 2024-02-02 Filename: 419482\_eng.pdf

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

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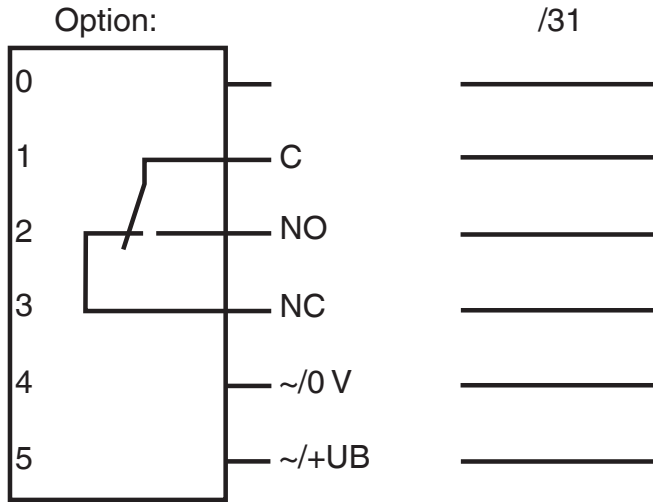
**PF** PEPPERL+FUCHS

## Technical Data

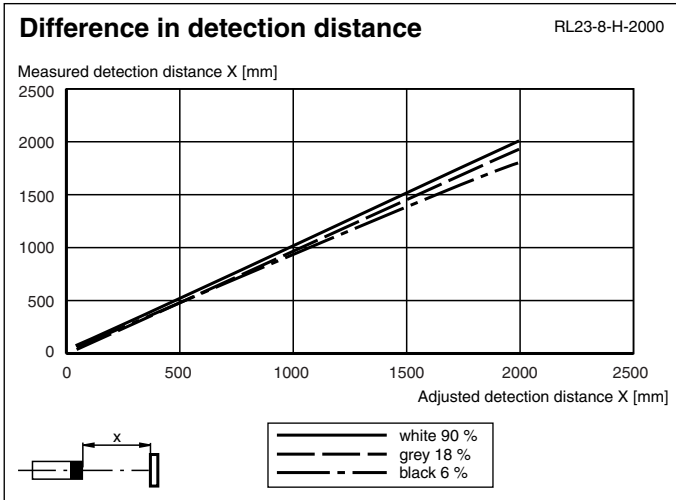
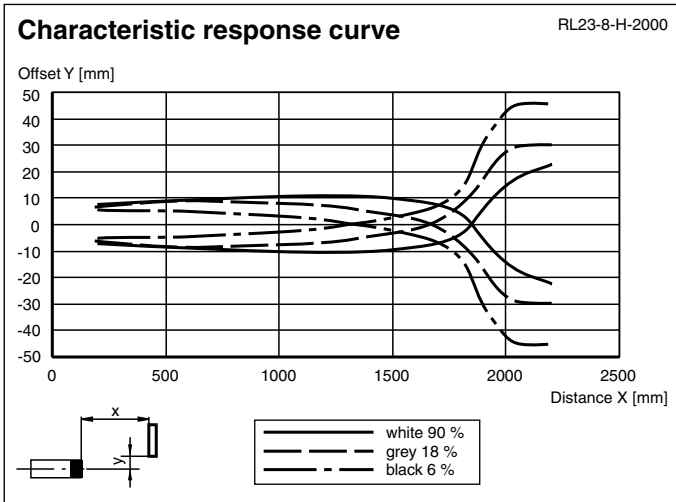
Detection range max.	50 ... 3000 mm	
Light source	IRED	
Light type	modulated infrared light	
Black-white difference (6 %/90 %)	< 20 %	
Diameter of the light spot	50 mm at 2000 mm sensor range	
Opening angle	1.5 °	
Ambient light limit	5000 Lux	
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>	850 a	
Mission Time (T <sub>M</sub> )	20 a	
Diagnostic Coverage (DC)	0 %	
<b>Indicators/operating means</b>		
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	
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	12 ... 240 V AC/DC (automatic adaption to +UB)
Power consumption	P <sub>0</sub>	3 VA
<b>Output</b>		
Switching type	light/dark on	
Signal output	1 relay output, 1 alternator	
Switching voltage	max. 240 V AC	
Switching current	max. 2 A	
Switching frequency	f	10 Hz
Response time	50 ms	
Timer function	ON delay (GAN), OFF delay (GAB), one shot (IAB), programmable, adjustment range 0.1 ... 10 s	
<b>Conformity</b>		
Product standard	EN 60947-5-2	
<b>Approvals and certificates</b>		
UL approval	cULus	
CCC approval	Certified by China Compulsory Certification (CCC)	
<b>Ambient conditions</b>		
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)	
Storage temperature	-20 ... 75 °C (-4 ... 167 °F)	
<b>Mechanical specifications</b>		
Degree of protection	IP65	
Connection	terminal compartment	
<b>Material</b>		
Housing	Terluran® GV15	
Optical face	glass	
Mass	180 g	
<b>Dimensions</b>		
Height	91 mm	
Width	26.8 mm	
Depth	67.6 mm	

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**Connection Assignment**

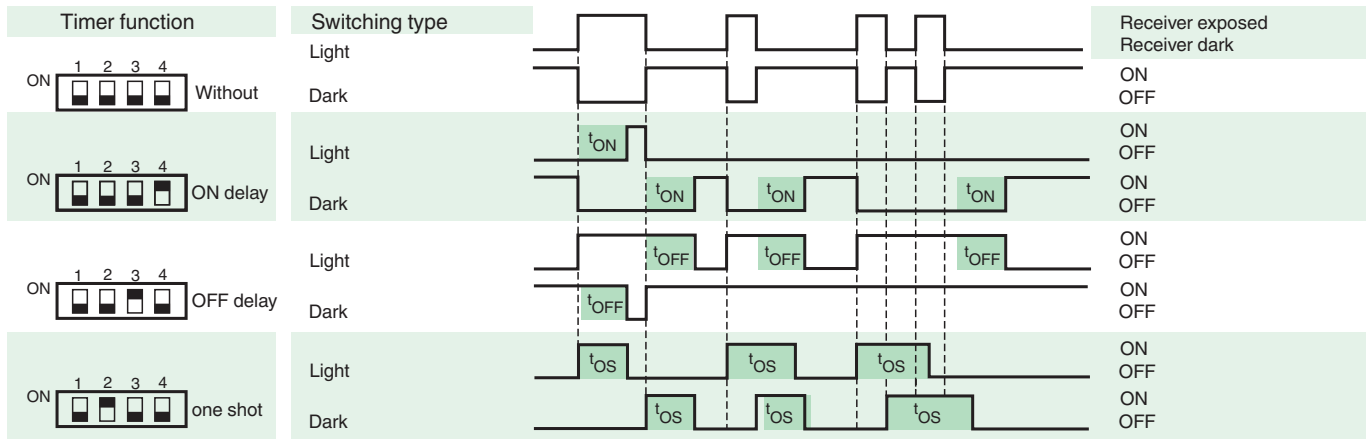


**Characteristic Curve**



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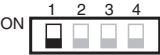

## Timer functions



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