



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

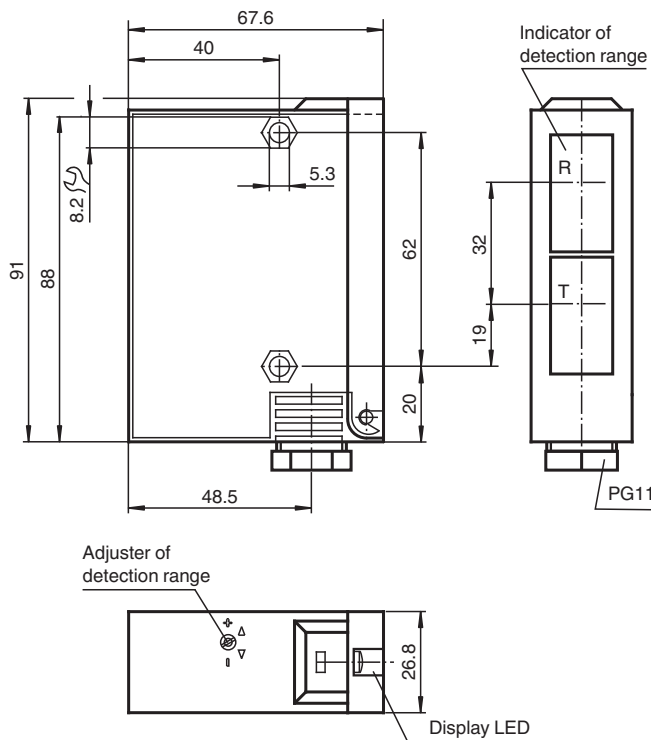


- Adjustable background suppression
- Infrared light
- Timer function
- Sturdy plastic housing
- Optical surface made of scratch-resistant glass
- Protected against mutual interference (no cross-talk)

Background suppression sensor



## Dimensions

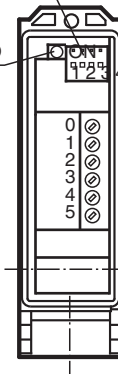


Terminal compartment  
RL23-8-H-1000  
RLK23-8-H-1000

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

Programming  
switch light/dark

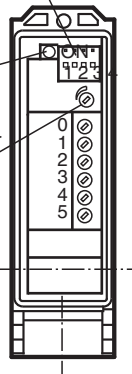
Display LED



Programming  
switch light/dark;  
time functions

Display LED

Time adjuster



## Technical Data

### General specifications

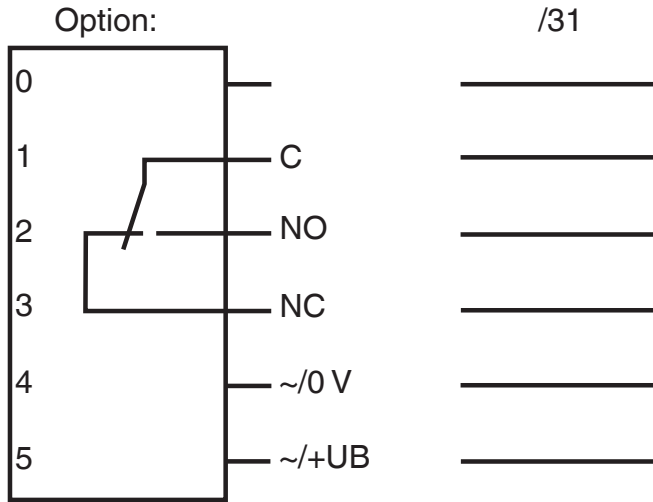
Detection range	50 ... 2000 mm
Detection range min.	50 ... 150 mm

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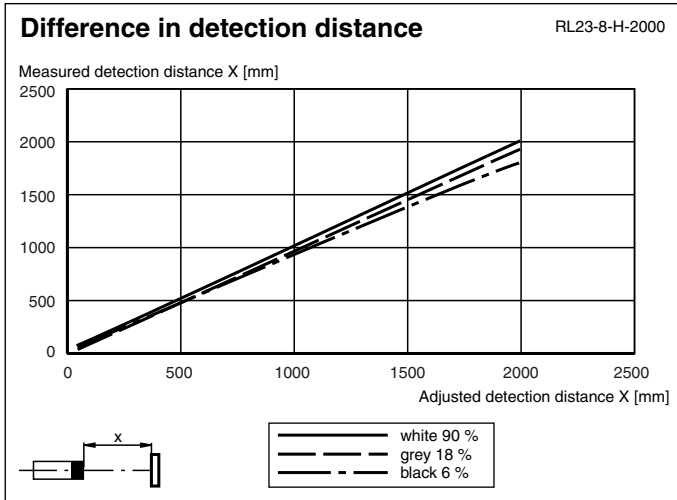
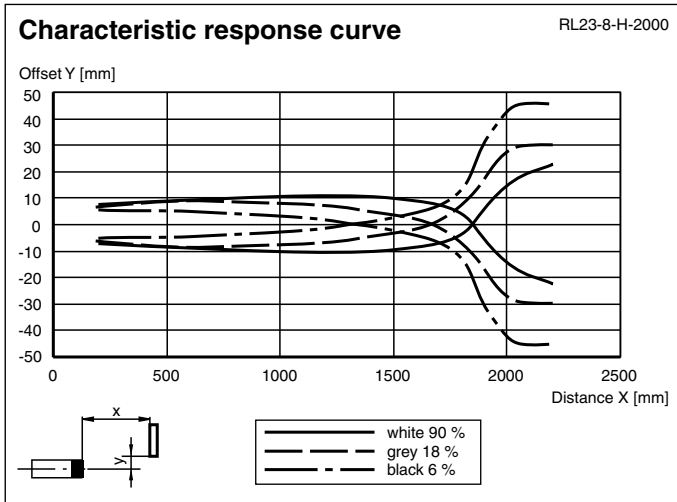
## Technical Data

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

**Connection Assignment**

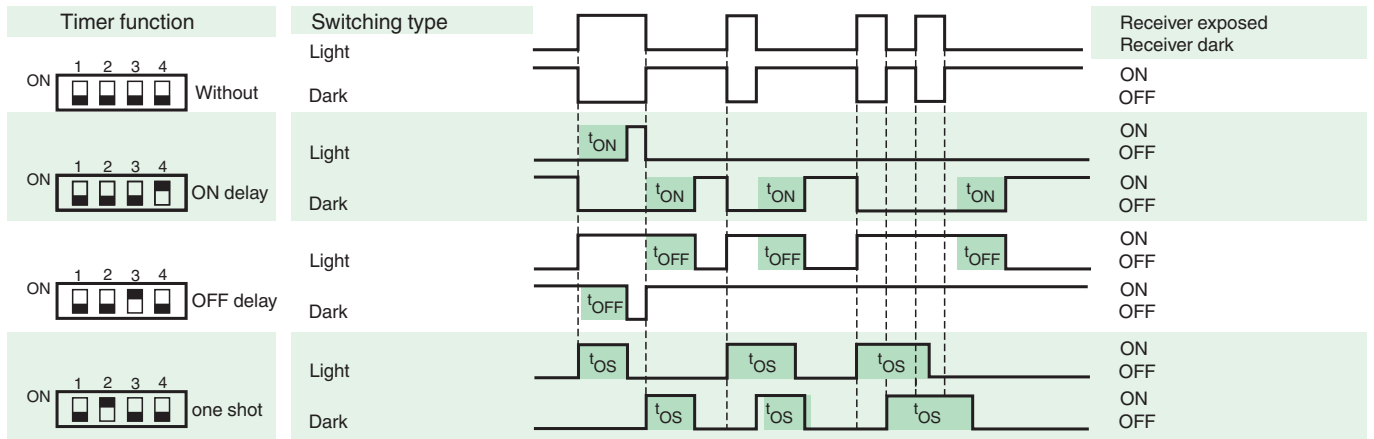


**Characteristic Curve**



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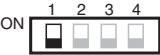

## Timer functions



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