

# Retroreflective sensor RLK31-6/31/115



- Cost-optimized series for standard tasks
- Large construction with small housing
- Version for universal voltages
- Relay output

Retroreflective sensor without polarization filter, plastic housing, 14 m detection range, red light, dark on, AC/DC version, relay contact output, no control elements, fixed cable

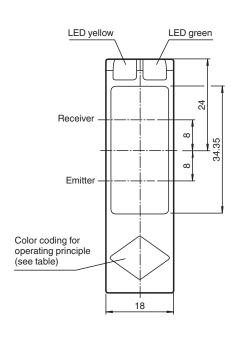


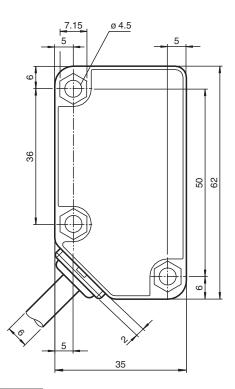






### **Dimensions**





Operating principle	color
Retroreflective sensor with polarisation filter	green
Retroreflective sensor	blue
Diffusive mode sensor	white
Thru -beam sensor	grey
Diffusive mode sensor with background suppression	red

### **Technical Data**

**General specifications** 

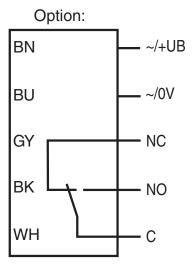
Effective detection range

14 m



Technical Data				
Reflector distance		200 14000 mm		
Threshold detection range		16.5 m		
Reference target		H85-2 reflector		
Light source		LED		
Light type		modulated visible red light , 630 nm		
Polarization filter		no		
Diameter of the light spot		approx. 240 mm at a distance of 8 m		
Opening angle		3°		
Ambient light limit		50000 Lux		
Functional safety related parameters				
MTTF <sub>d</sub>		790 a		
Mission Time (T <sub>M</sub> )		20 a		
Diagnostic Coverage (DC)		0 %		
Indicators/operating means				
Operation indicator		LED green: power on		
Function indicator		LED yellow:  1. LED lit constantly: signal > 2 x switching point (function reserve)  2. LED flashes: signal between 1 x switching point and 2 x switching point  3. LED off: signal < switching point		
Electrical specifications				
Operating voltage	U <sub>B</sub>	24 240 V AC 12 240 V DC		
No-load supply current	$I_0$	≤ 40 mA		
Power consumption	$P_0$	≤ 2 VA		
Output				
Switching type		dark-on		
Signal output		Relay, 1 alternator		
Switching voltage		max. 240 V AC		
Switching current		max. 3 A		
Switching power		DC: max. 150 W AC: max. 750 VA		
Switching frequency	f	20 Hz		
Response time		≤ 25 ms		
Conformity				
Product standard EN 60947-5-2				
Approvals and certificates				
Protection class		II , rated voltage $\leq$ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Output circuit basis insulation of input circuit according to EN 50178, rated insulation voltage 240 V AC		
CCC approval		Certified by China Compulsory Certification (CCC)		
Ambient conditions				
Ambient temperature		-25 55 °C (-13 131 °F)		
Storage temperature		-40 70 °C (-40 158 °F)		
Mechanical specifications				
Degree of protection		IP67		
Connection		2 m fixed cable		
Material				
Housing		Polycarbonate		
Optical face		PMMA		
Mass		154 g		
Dimensions				
Height		62 mm		
Width		18 mm		
Depth		35 mm		

## **Connection Assignment**



### **Characteristic Curve**

