



# Retroreflective sensor RLK31-54/31/115

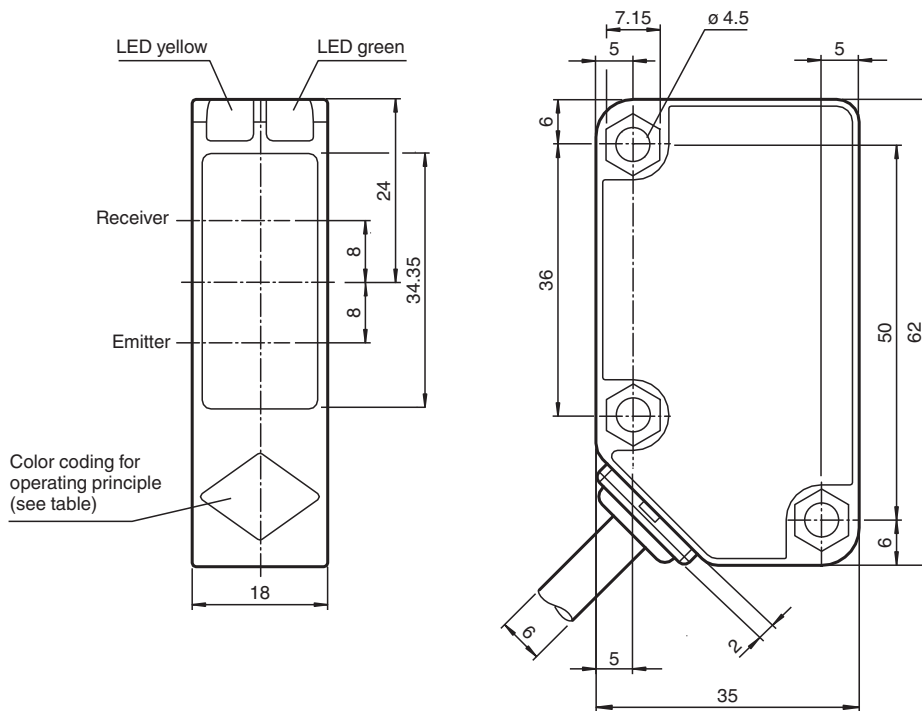


- Cost-optimized series for standard tasks
- Large construction with small housing
- Version for universal voltages
- Relay output

Retroreflective sensor with polarization filter, plastic housing, 9 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 0 ... 9000 mm

## Technical Data

Reflector distance		20 ... 9000 mm
Threshold detection range		12 m
Reference target		reflector C110-2
Light source		LED
Light type		modulated visible red light , 630 nm
Polarization filter		yes
Diameter of the light spot		approx. 200 mm at a distance of 6 m
Opening angle		3 °
Ambient light limit		50000 Lux
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		790 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
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
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	24 ... 240 V AC 12 ... 240 V DC
No-load supply current	I <sub>0</sub>	≤ 40 mA
Power consumption	P <sub>0</sub>	≤ 2 VA
<b>Output</b>		
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
<b>Conformity</b>		
Product standard		EN 60947-5-2
<b>Approvals and certificates</b>		
Protection class		II , rated voltage ≤ 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)
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 55 °C (-13 ... 131 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
<b>Mechanical specifications</b>		
Housing width		18 mm
Housing height		62 mm
Housing depth		35 mm
Degree of protection		IP67
Connection		2 m fixed cable
Material		
Housing		Polycarbonate
Optical face		PMMA
Mass		154 g

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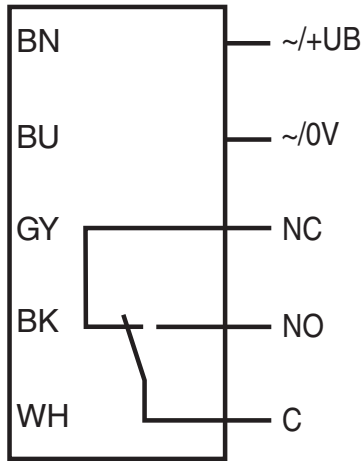
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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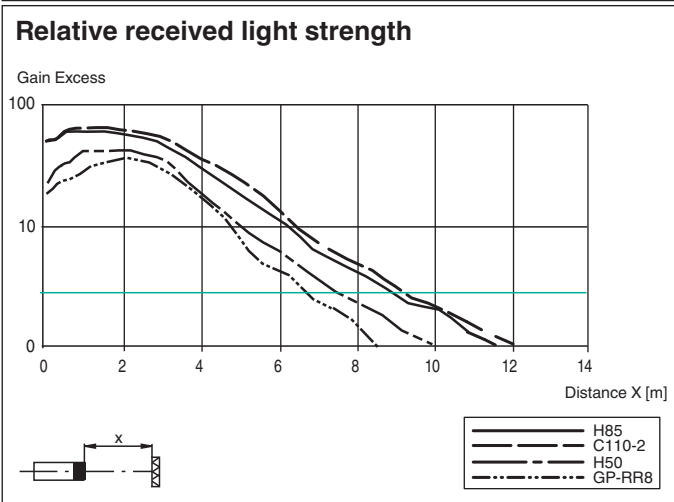
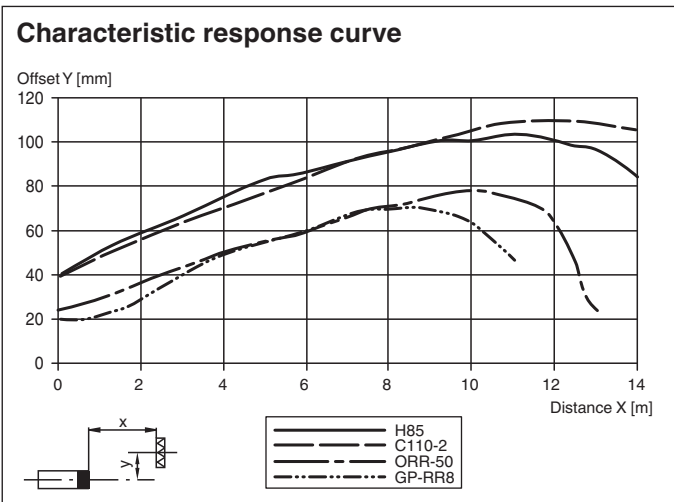
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**Connection Assignment**

Option:



**Characteristic Curve**







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**Accessories**

	<b>OMH-RL31-01</b>	Mounting bracket
	<b>OMH-RL31-02</b>	Mounting bracket narrow

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**Accessories**

	<b>OMH-RL31-03</b>	Mounting bracket narrow
	<b>OMH-RL31-04</b>	Mounting aid for round steel $\varnothing$ 12 mm or sheet 1.5 mm ... 3 mm
	<b>OMH-RL31-05</b>	Mounting bracket for mounting on flat surfaces with 2 M4 screws
	<b>OMH-RL31-06</b>	Stainless steel mounting bracket with adjustable half clamp on the side