

Retroreflective sensor with polarization filter



Model Number

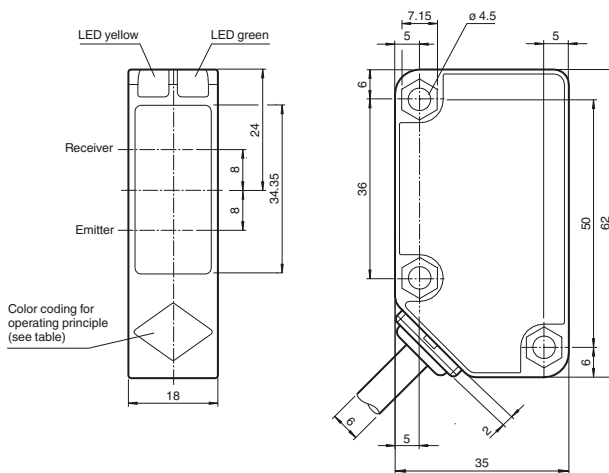
RLK31-54/25/31/115

Retroreflective sensor
with 2 m fixed cable

Features

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

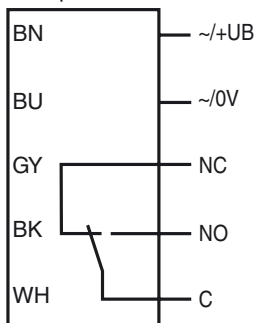
Dimensions



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

Electrical connection

Option:



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Technical data**General specifications**

Effective detection range	0 ... 9000 mm
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
Angle of divergence	3 °
Ambient light limit	50000 Lux

Functional safety related parameters

MTTF _d	790 a
Mission Time (T _M)	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 _B	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	light 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
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Ambient conditions

Ambient temperature	-25 ... 55 °C (-13 ... 131 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)

Mechanical specifications

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

Approvals and certificates

EAC conformity	TR CU 020/2011 TR CU 004/2011
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)

Accessories**OMH-RL31-01**

Mounting bracket

OMH-RL31-02

Mounting bracket narrow

OMH-RL31-03

Mounting bracket narrow

OMH-RL31-04

Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm

OMH-RL31-05

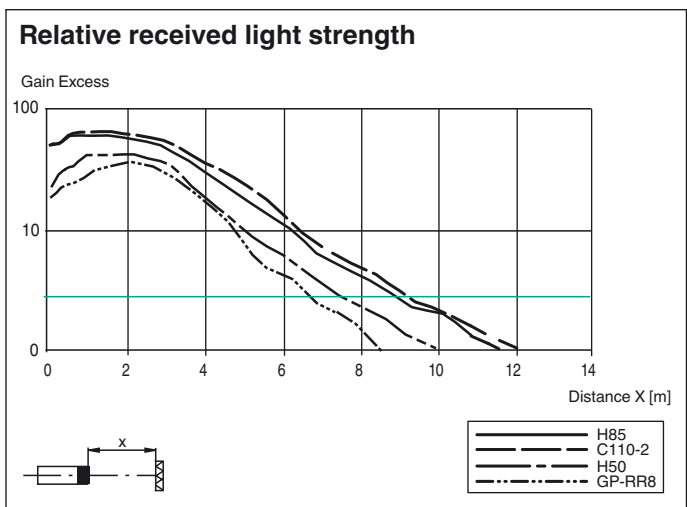
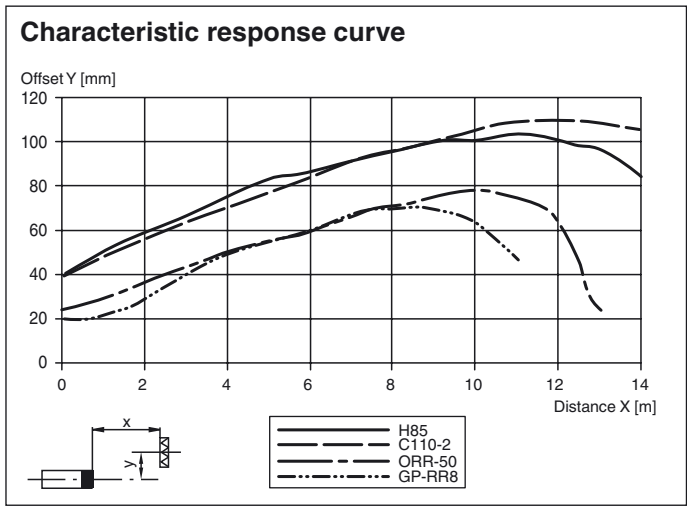
Mounting bracket for mounting on flat surfaces with 2 M4 screws

OMH-RL31-06

Stainless steel mounting bracket with adjustable half clamp on the side

Suitable reflectors and cable sockets can be found in the Internet

Curves/Diagrams



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



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