



**Model Number**

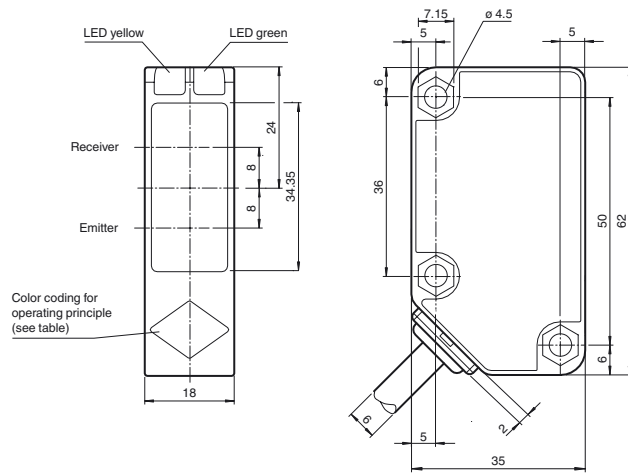
**RLK31-8-2500-IR/31/33/115-7M**

Diffuse mode sensor  
with 7 m fixed cable

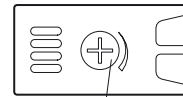
**Features**

- Operating voltage AC / DC
- Highly visible LED
- Relay output, 1 potential free alternator
- Compact and stable housing
- Protection class II

**Dimensions**



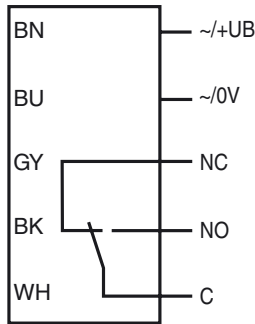
Operating principle	color
Retroreflective sensor	green
Retroreflective sensor without polarization filter	blue
Diffuse type sensor	white
Thru-beam sensor	grey
Convergent beam sensor	red



Sensing range adjustment

**Electrical connection**

Option:



Release date: 2017-09-15 08:58 Date of issue: 2017-09-15 807630\_eng.xml

**Technical data****General specifications**

Detection range	0 ... 2500 mm adjustable
Reference target	standard white 200 mm x 200 mm
Light source	IREd
Light type	modulated infrared light , 850 nm
Polarization filter	no
Diameter of the light spot	approx. 50 mm at a distance of 2.5 m
Angle of divergence	2 °
Ambient light limit	50000 Lux ; according EN 60947-5-2

**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, lights up with receiver lit
Control elements	Sensing range adjuster

**Electrical specifications**

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

**Output**

Switching type	light on	
Signal output	Relay, 1 alternator	
Switching voltage	max. 240 V AC/DC	
Switching current	max. 3 A	
Switching power	DC: max. 150 W AC: max. 750 VA	
Switching frequency	f	≤ 20 Hz
Response time		≤ 25 ms

**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	7 m fixed cable , 5-wire
Material	
Housing	Polycarbonate
Optical face	PMMA
Mass	480 g

**Compliance with standards and directives**

Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007
Standards	EN 62103

**Approvals and certificates**

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

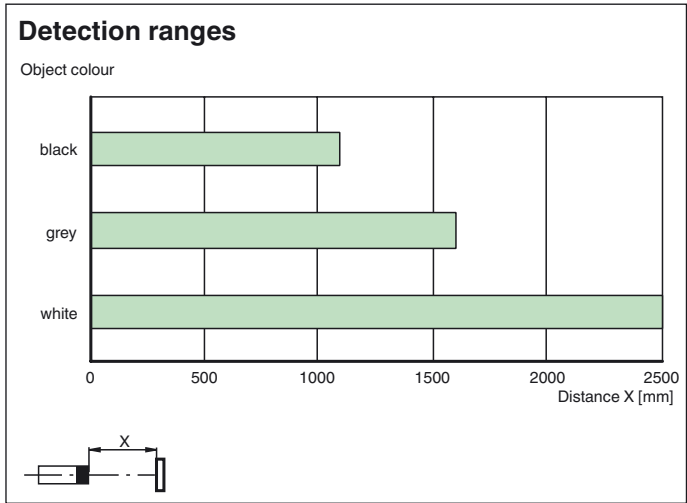
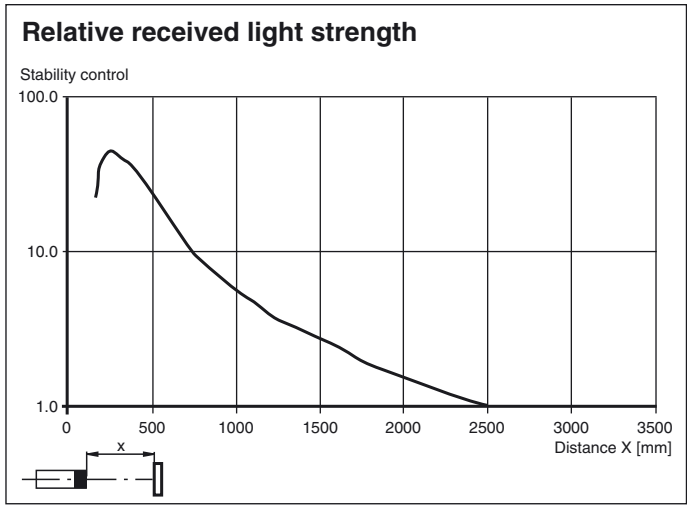
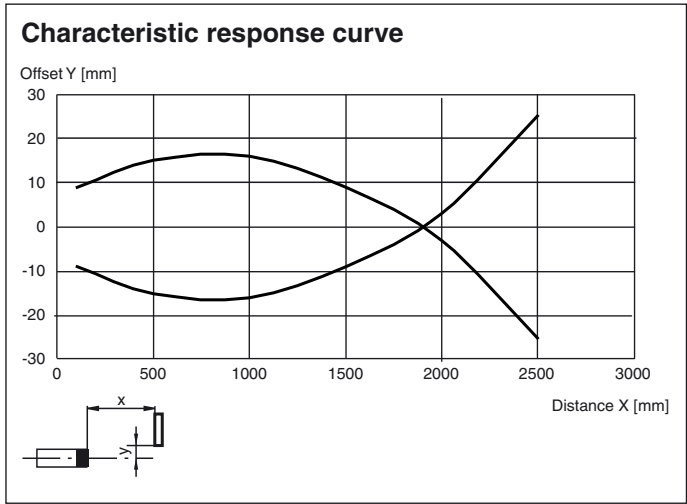
**OMH-RL31-04**  
Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm

**OMH-RL31-05**  
Mounting bracket with M10 threaded rod

**OMH-RL31-06**  
Stainless steel mounting bracket with adjustable half clamp on the side

Additional accessories can be found in the Internet.

**Curves/Diagrams**



Release date: 2017-09-15 08:58 Date of issue: 2017-09-15 807630\_eng.xml

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