



Model Number

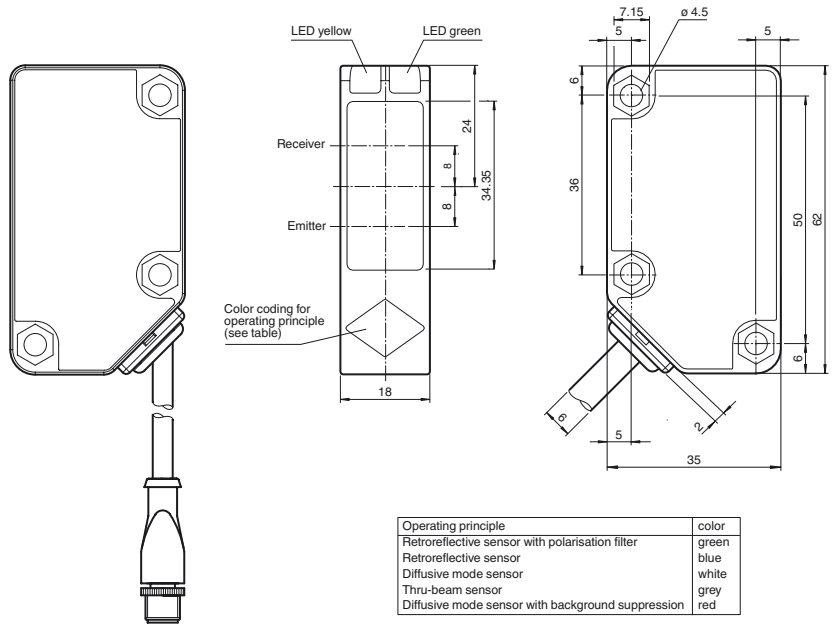
RL31-8-HGU-300-RT/115b/136

Convergent mode sensor with 0.3 m fixed cable and M12 connector, 4-pin

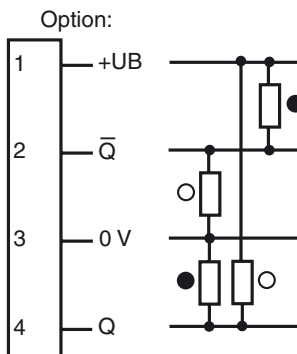
Features

- Background interference suppression
- Highly visible LED
- Powerful push-pull output
- Red transmission light
- Compact and stable housing
- Protection class II

Dimensions

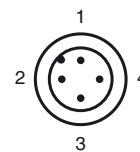


Electrical connection

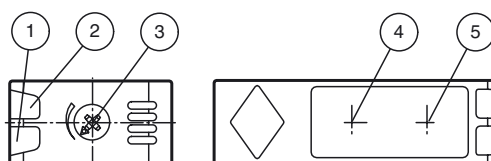


○ = Light on
● = Dark on

Pinout



Indicators/operating means



1	Operating display	green
2	Signal display	yellow
3	Sensing range adjuster	
4	Emitter	
5	Receiver	

Release date: 2011-10-17 08:38 Date of issue: 2011-10-17 190267_erg.xml

Subject to modifications without notice

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776-4411
fa-info@pepperl-fuchs.com

Copyright Pepperl+Fuchs
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

Technical data

General specifications

Detection range	10 ... 300 mm
Reference target	standard white, 100 mm x 100 mm
Light source	LED
Light type	modulated visible red light , 630 nm
Convergent mode	≥ 450 mm
Diameter of the light spot	approx. 8 mm at a distance of 300 mm
Angle of divergence	2 °
Ambient light limit	50000 Lux ; according EN 60947-5-2

Functional safety related parameters

MTTF _d	920 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Operating display	LED green: power on
Function display	LED yellow, lights up with receiver lit
Controls	Detection range adjuster

Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
Ripple		10 %
No-load supply current	I ₀	≤ 25 mA

Output

Switching type	light on	
Signal output	2 Push-pull outputs, short-circuit protected, reverse polarity protection	
Switching voltage	max. 30 V DC	
Switching current	max. 100 mA	
Voltage drop	U _d	≤ 1.5 V
Switching frequency	f	≤ 500 Hz
Response time		≤ 1 ms

Ambient conditions

Ambient temperature	-30 ... 55 °C (-22 ... 131 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)

Mechanical specifications

Protection degree	IP67
Connection	300 mm fixed cable with M12 x 1, 4-pin connector
Material	
Housing	plastic
Optical face	PMMA
Mass	50 g

Compliance with standards and directives

Directive conformity	EMC Directive 2004/108/EC
Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007

Approvals and certificates

Protection class	II , rated insulation 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
UL approval	cULus Listed, Class 2 Power Source, Type 1 enclosure
CCC approval	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

Accessories

OMH-RL31-01
Mounting bracket

OMH-RL31-02
Mounting bracket

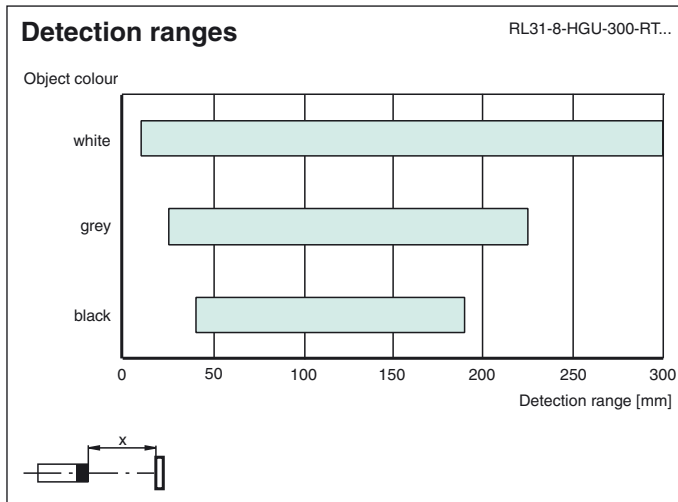
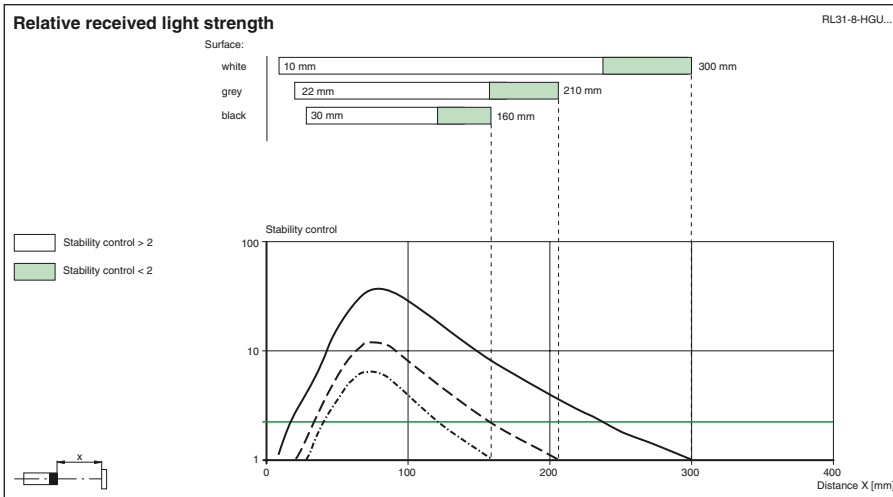
OMH-RL31-03
Mounting bracket

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

OMH-RL31-05
Mounting bracket

OMH-RL31-06
Mounting bracket

Other suitable accessories can be found at www.pepperl-fuchs.com



Release date: 2011-10-17 08:38 Date of issue: 2011-10-17 190267_eng.xml