



Model Number

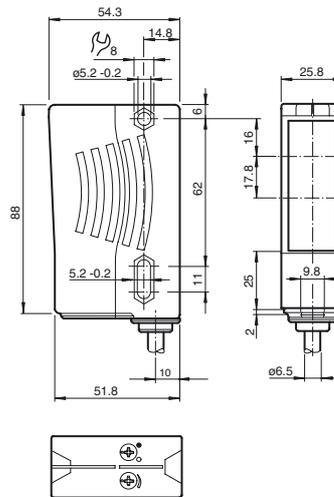
RL28-55-LAS/47/82b/115

Retroreflective sensor
with 2.5 m fixed cable

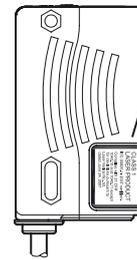
Features

- Visible red light, pulsed LASER light
- Ultra bright LEDs for power on, weak signal indication and switching state
- Not sensitive to ambient light, even with switched energy saving lamps
- Protection class II
- Waterproof, degree of protection IP67

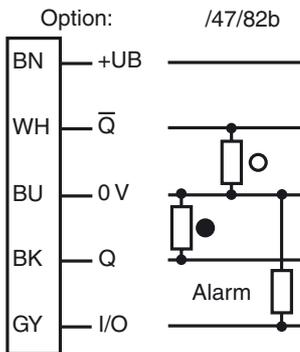
Dimensions



CLASS 1 LASER PRODUCT
IEC 60825-1: 2007 certified.
Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 58, dated June 24, 2007

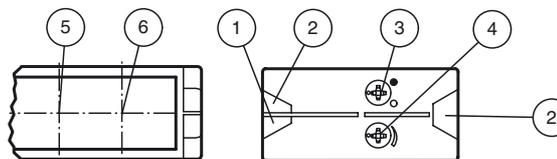


Electrical connection



- = Light on
- = Dark on

Indicators/operating means



1	Operating display green
2	Switch state yellow
3	Bright/dark switch
4	Sensitivity adjustment
5	Receiver
6	Emitter

Release date: 2018-02-21 11:26 Date of issue: 2018-02-21 123754_eng.xml

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

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Technical data**General specifications**

Effective detection range	0 ... 30 m
Reflector distance	0.3 ... 30 m
Threshold detection range	42 m
Reference target	MH82 reflector
Light source	laser diode
Light type	modulated visible red light
Polarization filter	yes
Laser nominal ratings	
Note	LASER LIGHT , DO NOT STARE INTO BEAM
Laser class	1
Wave length	650 nm
Beam divergence	< 1.5 mrad
Pulse length	approx. 4.5 µs
Repetition rate	approx. 6 kHz ... 20 kHz
max. pulse energy	4 nJ
Diameter of the light spot	approx. 45 mm at 30 m
Angle of divergence	Emitter: < 0.1 ° Receiver: < 2 °
Ambient light limit	50000 Lux

Functional safety related parameters

MTTF _d	560 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Operation indicator	LED green
Function indicator	2 LEDs yellow, light up when light beam is free, flash when falling short of the stability control, off when light beam is interrupted
Control elements	sensitivity adjustment (Adjustment to < 25% of the effective operating range) , Light-on/dark-on changeover switch

Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I ₀	≤ 35 mA
Protection class		II, rated insulation voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1

Output

Pre-fault indication output	1 PNP, inactive when falling short of the stability control for 10;s immediately inactive if 4 light beam interruptions take place	
Switching type	light/dark on switchable	
Signal output	2 PNP, complementary, short-circuit protected, reverse polarity protected , open collectors	
Switching voltage	max. 30 V DC	
Switching current	max. 200 mA	
Voltage drop	U _d	≤ 2.5 V DC
Switching frequency	f	1000 Hz
Response time		0.5 ms

Conformity

Product standard	EN 60947-5-2
Laser safety	EN 60825-1

Ambient conditions

Ambient temperature	-10 ... 50 °C (14 ... 122 °F)
Storage temperature	-20 ... 75 °C (-4 ... 167 °F)

Mechanical specifications

Housing width	25.8 mm
Housing height	88 mm
Housing depth	54.3 mm
Degree of protection	IP67
Connection	2500 mm fixed cable
Material	
Housing	Plastic ABS
Optical face	Plastic pane
Mass	80 g

Approvals and certificates

Protection class	II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1
UL approval	E87056 , cULus Listed , class 2 power supply , type rating 1
FDA approval	IEC 60825-1:2007 Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007

Accessories**OMH-05**

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

OMH-07

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

OMH-21

Mounting bracket

OMH-22

Mounting bracket

OMH-MLV11-K

dove tail mounting clamp

OMH-RLK29-HW

Mounting bracket for rear wall mounting

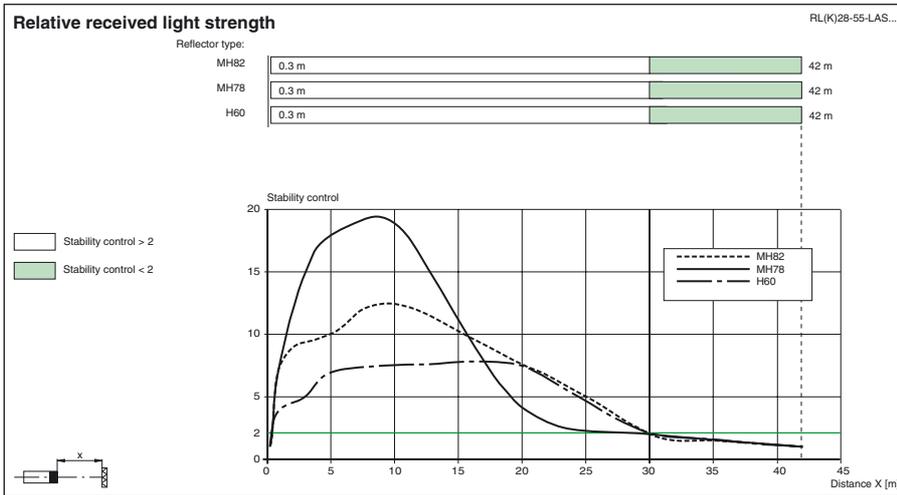
OMH-RL28-C

Weld slag cover model

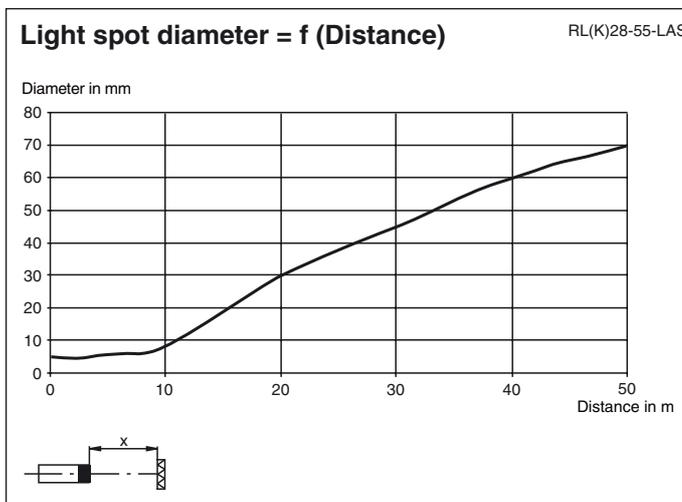
REF-MH82

Reflector with Micro-structure, rectangular 82 mm x 60 mm, mounting holes

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



Curves/Diagrams



Laser notice laser class 1

- The irradiation can lead to irritation especially in a dark environment. Do not point at people!
- Maintenance and repairs should only be carried out by authorized service personnel!
- Attach the device so that the warning is clearly visible and readable.
- Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

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