



**Model Number**

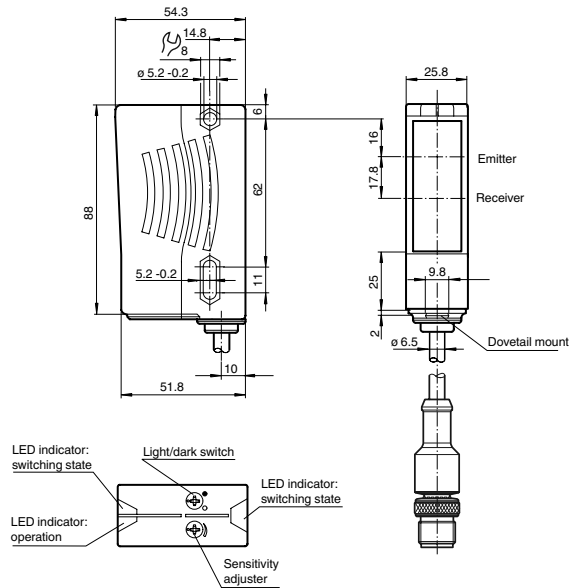
**RL28-55/35/47/115b**

Retroreflective sensor  
with 230 mm fixed cable and 4-pin, M12 x 1  
connector

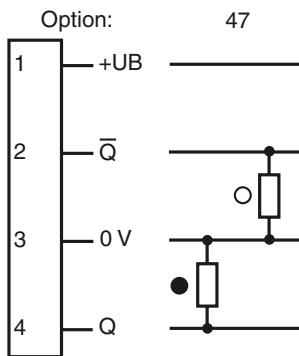
**Features**

- Clearly visible LEDs for Power ON, switching state and weak signal indication
- Sensitivity adjuster and light/dark switch as standard features of this series
- Not sensitive to ambient light, even with energy saving lamps
- Dove-tail mounts and pass-through mounting holes
- Large temperature range from -40 ... 60 °C (-40 ... 140 °F)
- Sensing range up to 26 m

**Dimensions**

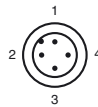


**Electrical connection**



○ = Light on  
● = Dark on

**Pinout**



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

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

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

Effective detection range	0 ... 20 m
Reflector distance	0.05 ... 20 m
Threshold detection range	26 m
Reference target	H85-2 reflector
Light source	LED
Light type	modulated visible red light , 660 nm
Polarization filter	yes
Diameter of the light spot	approx. 350 mm at a distance of 20 m
Angle of divergence	emitter 1.2° receiver 2°
Ambient light limit	80000 Lux

**Functional safety related parameters**

MTTF <sub>d</sub>	950 a
Mission Time (T <sub>M</sub> )	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 <sub>B</sub>	10 ... 30 V DC
Ripple		10 %
No-load supply current	I <sub>0</sub>	≤ 40 mA

**Output**

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	
Switching frequency	f	250 Hz
Response time		2 ms

**Conformity**

Product standard	EN 60947-5-2
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**Ambient conditions**

Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)
Storage temperature	-40 ... 75 °C (-40 ... 167 °F)

**Mechanical specifications**

Housing width	25.8 mm
Housing height	88 mm
Housing depth	54.3 mm
Degree of protection	IP67
Connection	fixed cable 230 mm with M12 x 1 male connector, 4-pin
Material	
Housing	Plastic ABS
Optical face	plastic
Mass	70 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

**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

**OMH-K01**

dove tail mounting clamp

**OMH-K03**

dove tail mounting clamp

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)