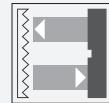




## Retroreflective sensor

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

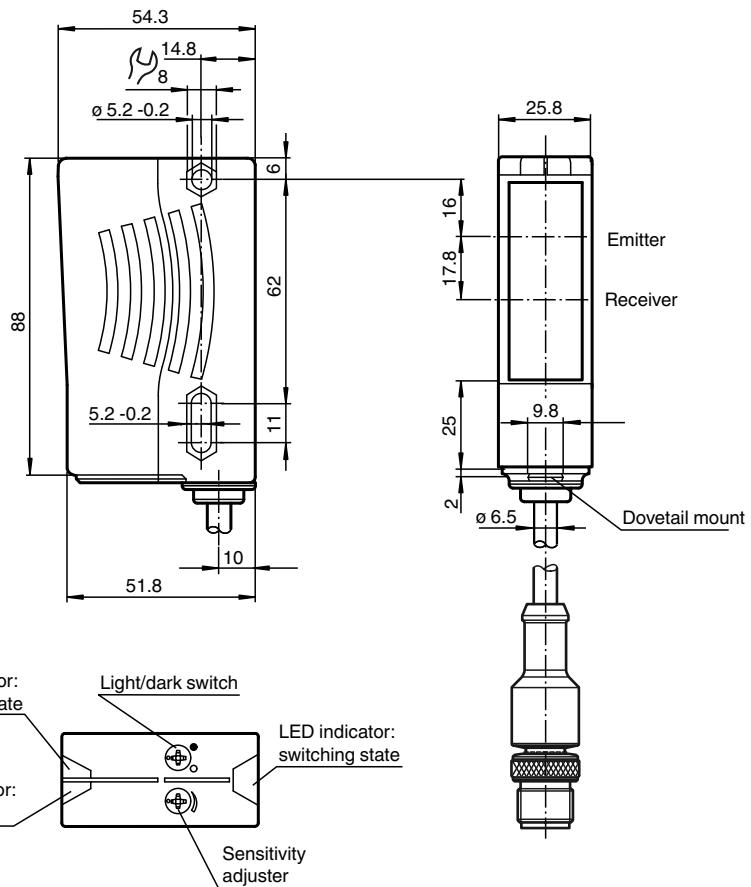


- Clearly visible LEDs for Power ON, switching state and weak signal indication
- Sensitivity adjuster and light-on/dark-on changeover switch as standard features of this series
- Not sensitive to ambient light, even with energy saving lamps
- Dove-tail mounts and pass-through mounting holes
- Large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

Retroreflective sensor with polarization filter



## Dimensions



## Technical Data

### General specifications

Release date: 2021-11-11 | Date of issue: 2021-11-11 | Filename: 201778\_eng.pdf

Effective detection range	0 ... 20 m
Reflector distance	0.05 ... 20 m

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

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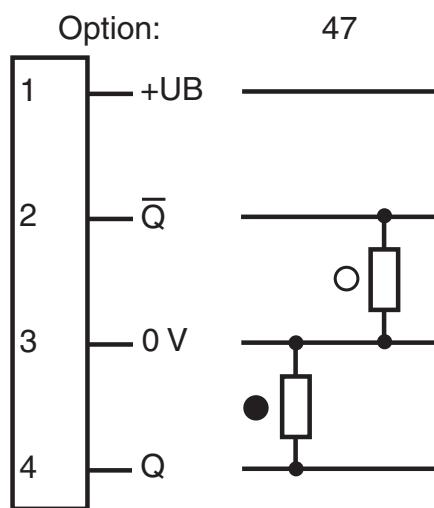
Singapore: +65 6779 9091  
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 PEPPERL+FUCHS

## Technical Data

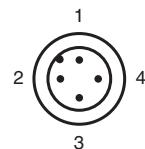
Threshold detection range	26 m	
Reference target	H85-2 reflector	
Light source	LED	
Light type	modulated visible red light , 660 nm	
Polarization filter	yes	
Diameter of the light spot	approx. 350 mm at a distance of 20 m	
Angle of divergence	emitter 1.2° receiver 2°	
Ambient light limit	80000 Lux	
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>	950 a	
Mission Time (T <sub>M</sub> )	20 a	
Diagnostic Coverage (DC)	0 %	
<b>Indicators/operating means</b>		
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	
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Ripple		10 %
No-load supply current	I <sub>0</sub>	≤ 40 mA
<b>Output</b>		
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	
<b>Conformity</b>		
Product standard	EN 60947-5-2	
<b>Approvals and certificates</b>		
EAC conformity	TR CU 020/2011	
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	
<b>Ambient conditions</b>		
Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)	
Storage temperature	-40 ... 75 °C (-40 ... 167 °F)	
<b>Mechanical specifications</b>		
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	Plastic ABS	
Housing	plastic	
Optical face		
Mass	70 g	

## Connection



○ = Light on  
 ● = Dark on

## Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

## Application



## Accessories

	<b>OMH-05</b>	Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm
	<b>OMH-21</b>	Mounting bracket: mounting aid for sensors in the RL* series
	<b>OMH-22</b>	Mounting aid for RL* series
	<b>OMH-RLK29-HW</b>	Mounting bracket for rear wall mounting
	<b>OMH-RL28-C</b>	Weld slag cover model
	<b>OMH-K01</b>	dove tail mounting clamp
	<b>OMH-K03</b>	dove tail mounting clamp