Dimensions

Model Number
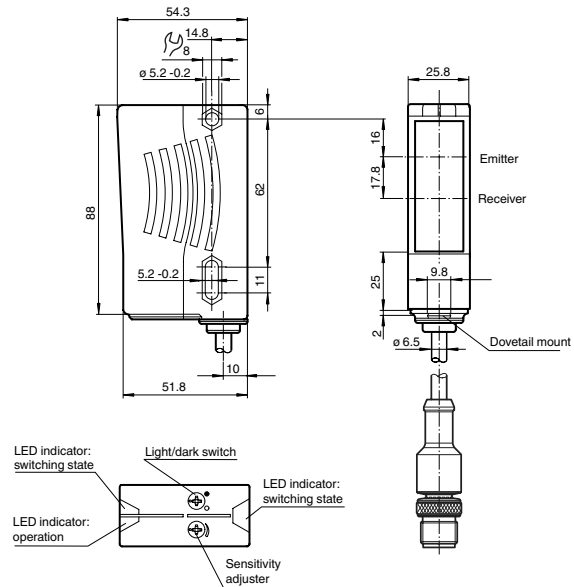
RL28-55/35/47/115b

Retroreflective sensor

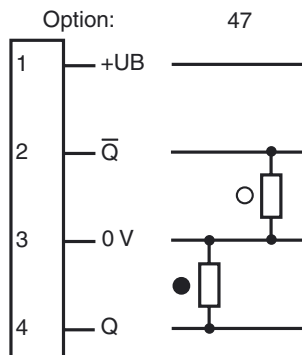with 230 mm fixed cable and 4-pin, M12 x 1 connector

Features

- Clearly visible LEDs for Power ON, switching state and stability control

- 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)
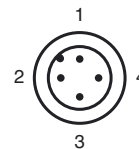
- Sensing range up to 26 m

Electrical connection

Option: 47

○ = Light on
● = Dark on

Pinout

Subject to modifications without notice

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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
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

$MTTF_d$	1190 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Operating display	LED green
Function display	2 LEDs yellow, light up when light beam is free, flash when falling short of the stability control, off when light beam is interrupted
Controls	sensitivity adjustment (Adjustment to < 25% of the effective operating range) , Light/Dark switch

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC
Ripple		10 %
No-load supply current	I_0	≤ 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

Ambient conditions

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

Mechanical specifications

Protection degree	IP67
Connection	fixed cable 230 mm with M12 x 1 male connector, 4-pin
Material	
Housing	Plastic ABS
Optical face	plastic
Mass	70 g

Compliance with standards and directives

Standard conformity	
Product standard	EN 60947-5-2:2007

Approvals and certificates

Protection class	II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1
UL approval	cULus
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-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
Mounting bracket

OMH-RLK29-HW
Mounting bracket for rear wall mounting

OMH-RL28-C
Protective cover

OMH-K01
dove tail mounting clamp

OMH-K03
dove tail mounting clamp

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