

Retroreflective area sensor with 6 beams in a widely used standard photoelectric housing, red light, 4 m detection range, light/dark on switchable, push-pull output, M12 plug



Function

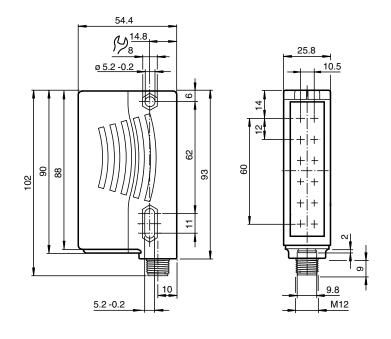
The RLG28 retro-reflective area sensor contains several transmitters and receivers in one housing and with a reflector positioned opposite forms

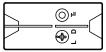
a 60 mm detection area over a sensing range of 4 m. When the light beams are interrupted by an object, the switching function is triggered. The smallest detectable object size is 12 mm. The RLG28 switches at a 10% contrast difference with a response time of 1 ms.

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



Dimensions





Technical Data

General specifications	
Effective detection range	0 4 m
Reflector distance	Reflector A80: 0.4 4 m , H85-2 reflector: 0.2 4 m , Foil reflector OFR-100/100: 0.4 3 m
Threshold detection range	5.6 m
Sensing range	typical 60 mm, Object has to cover the refelector completely in one dimension
Reference target	Reflector A80 H85-2 reflector Foil reflector OFR-100/100
Light source	LED
Light type	modulated visible red light, 625 nm
Polarization filter	yes
Number of beams	6
Diameter of the light spot	approx. 220 mm at detection range 4 m
Opening angle	+/- 2.5 °
Ambient light limit	5000 Lux
Resolution	12 mm to 4 m Detection/capture range: 60 mm (no dead band) 5 mm to 1 m Detection/capture range: 55 mm (dead band: 150 mm in front of the sensor; 50 mm in front of the reflector) 5 mm to 1.5 m Detection/capture range: 40 mm (dead band: 150 mm in front of the sensor; 50 mm in front of the reflector)
Functional safety related parameters	
MTTF _d	310 a
Mission Time (T _M)	20 a

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



Diagnostic Coverage (DC) 0 % Indicators/operating means EED green, statically it Power on Undervotige indicator foren LED, pupting (approx. 0.8 Hz) short-circuit : LED green flashing (approx. 0.4 Hz) Function indicator 2 LEDs yolw, light up when light beam is interrupted trackine. IED yellow, reprint up when light beam is interrupted trackine. IED yellow, reprint up when light beam is interrupted trackine. IED yellow, reprint up when light beam is interrupted Control elements rotary switch for light/dark , Teach-In key Electrical specifications	Technical Data		
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Connection 4-pin, M12 x 1 connector Material Housing Plastic ABS Optical face Plastic pane	Housing depth		54.3 mm
Material Plastic ABS Optical face Plastic pane	Degree of protection		IP67
HousingPlastic ABSOptical facePlastic pane	Connection		4-pin, M12 x 1 connector
Optical face Plastic pane	Material		
	Housing		Plastic ABS
Mass 100 g	Optical face		Plastic pane
	Mass		100 g

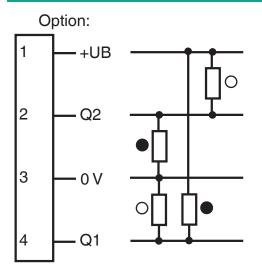
 Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

 Pepperl+Fuchs Group
 USA: +1 330 486 0001
 Get

 www.pepperl-fuchs.com
 fa-info@us.pepperl-fuchs.com
 fa-info@us.pepperl-fuchs.com

3

Connection Assignment



O = Light on

= Dark on

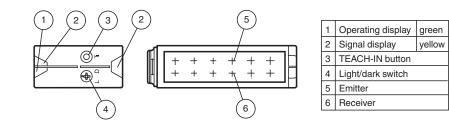
Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

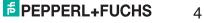
Assembly



Accessories

Release date: 2023-03-28 Date of issue: 2023-03-28 Filename: 227596_eng.pdf

C .s	ОМН-05	Mounting aid for round steel ø 12 mm or sheet 1.5 mm 3 mm
	OMH-21	Mounting bracket: mounting aid for sensors in the RL* series



Accessories

	OMH-RLK29-HW	Mounting bracket for rear wall mounting
	ОМН-К01	dove tail mounting clamp
	REF-H85-2	Reflector, rectangular 84.5 mm x 84.5 mm, mounting holes
<i>s</i> /	V1-G-2M-PVC	Female cordset single-ended M12 straight A-coded, 4-pin, PVC cable grey
ø /	V1-G-2M-PUR	Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey
« /	V1-W-2M-PUR	Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey
	REF-A80	Reflector, rectangular 80 mm x 50 mm, self-adhesive

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

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

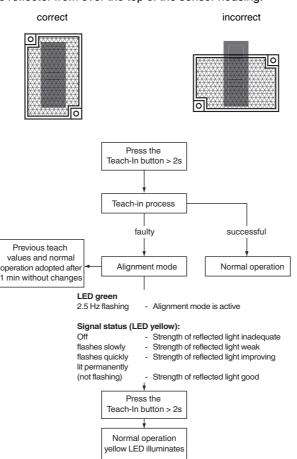
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Additional Information

Mounting:

Ensure that the red light transmitted by the sensor fully illuminates the reflector.

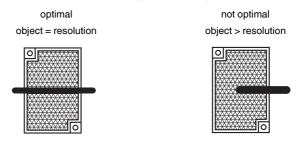
To ensure optimal detection, the entire 60 mm detection field must appear on the reflector. To check this illumination, look at the reflector from over the top of the sensor housing.



Teach-in:

More stringent adjustment requirements: Ensure that the device is correctly aligned in the near range of 0.2 m ... 0.6 m. **Object detection after successful Teach-in**

The target should be large enough so that the reflector is always completely covered in one dimension!



Signal tracking:

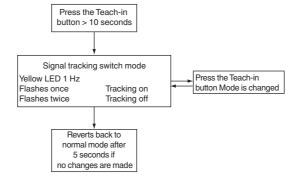
- Active:
- At variable temperature
- Objects located in the light path that lie below the switching point. These objects result in a readjustment of the emitter. This
 allows these objects to be taught in or taught out.
- Inactive:
- Function not available

To alter the signal tracking, press the Teach-in button for > 10 seconds. The current status is displayed. Briefly pressing the Teach-in button changes the mode.

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



Retroreflective area sensor



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