Retroreflective area sensor
RLG28-55-7226

- Retro-reflective area sensor with 6 light beams in standard photoelectric-sensor enclosure
- Connection compatibly replaces single beam photoelectric sensor
- Reliable detection of the front edge of the object irrespective of its shape and position
- Constant object detection from 12 mm within the entire detection area
- Reliable detection of all surfaces irrespective of the object texture
- Switches when contrast difference 10%
- Bright, highly visible transmitter beams guarantee convenient alignment of the sensor
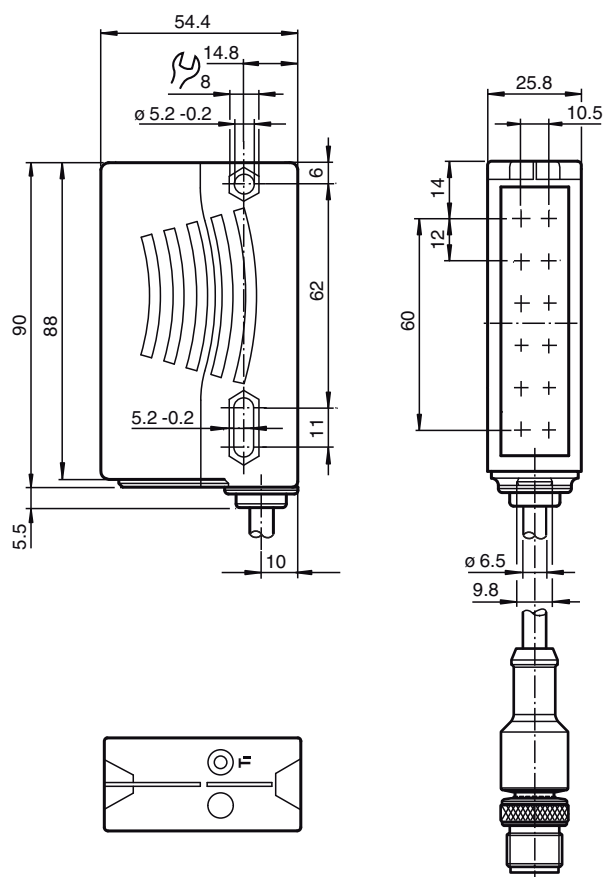
Retroreflective area sensor with 6 beams in the standard photoelectric-sensor enclosure, red light, 0.6 m detection range, light/dark on, push-pull output, fixed cable with socket

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 0,6 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. An intelligent gain control compensates for effects such as dirt, misalignment, and temperature.

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com
USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com
Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

1

Dimensions

Technical Data

General specifications

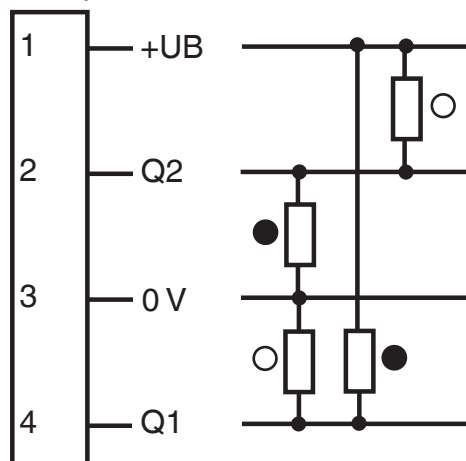|	
Effective detection range	0 ... 0.6 m
Reflector distance	0.15 ... 0.6 m
Threshold detection range	1 m
Sensing range	typical 60 mm , Object has to cover the refelector completely in one dimension
Reference target	Reflector H50x100 , H85-2 reflector
Light source	LED
Light type	modulated visible red light , 625 nm
Polarization filter	yes
Number of beams	6
Opening angle	+/- 2.5 °
Ambient light limit	5000 Lux
Resolution	12 mm
Functional safety related parameters	
$MTTF_d$	310 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %
Indicators/operating means	
Operation indicator	LED green, statically lit Power on Undervoltage indicator: Green LED, pulsing (approx. 0.8 Hz) short-circuit : LED green flashing (approx. 4 Hz)

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

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

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

2

Technical Data

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 Teach-In : LED yellow/green; equiphase flashing; 2,5 Hz
Control elements		Teach-In key
Electrical specifications		
Operating voltage	U_B	12 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I_0	max. 50 mA
Output		
Switching type		light/dark on
Signal output		2 push-pull (4 in 1) outputs, complementary, short-circuit proof, reverse polarity protected
Switching voltage		max. 30 V DC
Switching current		max. 100 mA
Voltage drop	U_d	≤ 2.5 V DC
Switching frequency	f	230 Hz
Response time		1 ms
Conformity		
Product standard		EN 60947-5-2
Approvals and certificates		
UL approval		cULus Listed, Class 2 Power Source
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-10 ... 40 °C (14 ... 104 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
Mechanical specifications		
Housing width		25.8 mm
Housing height		88 mm
Housing depth		54.3 mm
Degree of protection		IP67
Connection		300 mm fixed cable with M12 x 1, 4-pin connector
Material		
Housing		Plastic ABS
Optical face		Plastic pane
Mass		100 g

Connection Assignment

Option:

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

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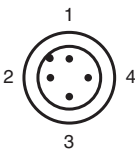
USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS
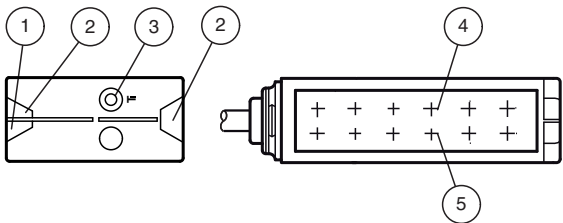
3

○ = 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

1	Operating display	green
2	Signal display	yellow
3	TEACH-IN button	
4	Emitter	
5	Receiver	

Accessories

	OMH-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
	OMH-RLK29-HW	Mounting bracket for rear wall mounting
	OMH-K01	dove tail mounting clamp
	REF-H85-2	Reflector, rectangular 84.5 mm x 84.5 mm, mounting holes
	REF-H50x100	Reflector, rectangular 122 mm x 49.5 mm, mounting holes
	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

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

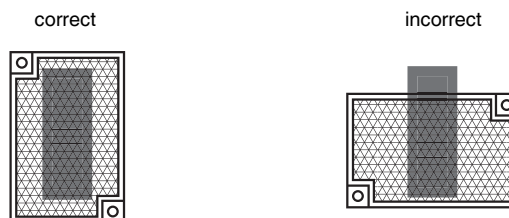| Pepperl+Fuchs Group	USA: +1 330 486 0001	Germany: +49 621 776 1111	Singapore: +65 6779 9091
www.pepperl-fuchs.com	fa-info@us.pepperl-fuchs.com	fa-info@de.pepperl-fuchs.com	fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS   4
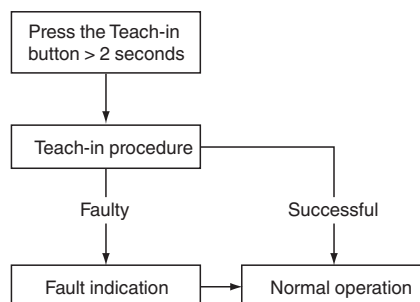
Additional Information

Mounting:
Ensure that the red light emitted by the sensor fully illuminates the reflector.
To ensure detection in the sensor field, 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.

correct   incorrect

Teach-in:

Press the Teach-in button > 2 seconds

Teach-in procedure

Faulty   Successful

Fault indication   →   Normal operation

Object detection after successful Teach-in:
The objects to be detected should be large enough so that the reflector is always completely covered in one dimension.

optimal   not optimal
Object = resolution   Object > resolution

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".
Pepperl+Fuchs Group   USA: +1 330 486 0001   Germany: +49 621 776 1111   Singapore: +65 6779 9091
www.pepperl-fuchs.com   fa-info@us.pepperl-fuchs.com   fa-info@de.pepperl-fuchs.com   fa-info@sg.pepperl-fuchs.com   PEPPERL+FUCHS   5