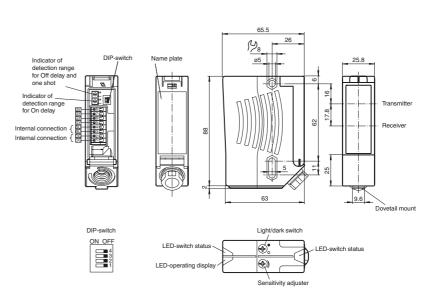


Dimensions



Model Number

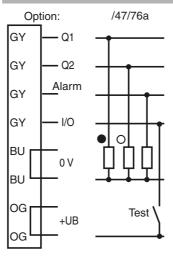
RL28-55-Z/47/76a/82b/116

Retroreflective sensor with terminal compartment

Features

- Ultra bright LEDs for power on, pre ٠ fault indication and switching state
- Programmable time function GAN, ٠ GAB, IAB and GAN-IAB as double function
- Test input ٠
- Not sensitive to ambient light, even with switched energy saving lamps
- Waterproof, protection degree IP67 •
- Protection class II

Electrical connection





Refer to "General Notes Relating to Pepperl+Fuchs Product Information" Pepperl+Fuchs Group www.pepperl-fuchs.com

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Technical data

Technical data		
General specifications		
Effective detection range		0 17 m
Reflector distance		0.05 17 m
Threshold detection range		21 m
, i i i i i i i i i i i i i i i i i i i		
Reference target		H85-2 reflector
Light source		LED
Light type		modulated visible red light , 660 nm
Diameter of the light spot		approx. 290 mm at a distance of 17 m
Angle of divergence		emitter 1.2° receiver 2°
Ambient light limit		80000 Lux
Functional safety related parame	ters	
MTTF _d		1140 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		90 %
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	UB	10 30 V DC
Ripple		10 %
No-load supply current	I ₀	≤ 40 mA
Input		
Test input		emitter deactivation at +U _B
Output		
Pre-fault indication output		1 PNP, inactive when falling short of the stability control for 10;s
		immediately inactive if 4 light beam interruptions take place
Switching type		light/dark on, switchable (selectable, light/dark switching is only activated if the receiver has 'dark on' selected.)
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	1000 Hz
Response time		0.5 ms
Timer function		ON delay (GAN), OFF delay (GAB), one shot (IAB), ON delay- one shot (GAN-IAB), ON delay-OFF delay (GAN-GAB), pro- grammable adjustment interval 0.02 s 1 s
Ambient conditions		
Ambient temperature		-40 60 °C (-40 140 °F)
Storage temperature		-40 75 °C (-40 167 °F)
Mechanical specifications		
Protection degree		IP67
Connection		terminal compartment with 8 spring-loaded terminals for wire
Connection		cross section 0.5 1.5 mm ² , insulation stripping 7.5 8.5 mm, M16 x 1.5 cable gland
Material		
Housing		Plastic ABS
Optical face		plastic
Mass		approx. 112 g
Compliance with standards and	directi-	
Ves Standard conformity		
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 accor- ding to IEC 60664-1 Caution! The protection class 2 is only valid when the terminal compart- ment is closed.
UL approval CCC approval		cULus CCC approval / marking not required for products rated ≤36 V

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

Weld slag cover model

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

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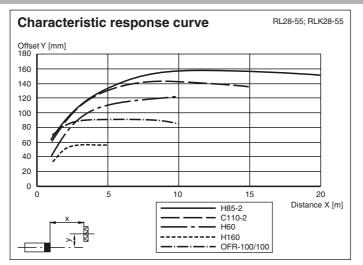
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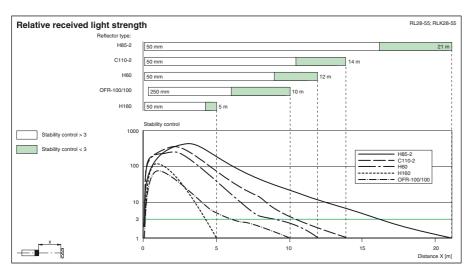
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Curves/Diagrams





Timer functions

Timer function	Switching type		Receiver exposed Receiver dark
ON ON Without	Light Dark		ON OFF
<u>1 2 3 4</u>	Light		ON OFF
ON elay	Dark	ton ton ton	ON OFF
1 2 3 4	Light		ON OFF
ON OFF delay	Dark	toff	ON OFF
1 2 3 4	Light	tos tos	ON OFF
ON O	Dark	tos tos tos	ON OFF

Time $t_{ON},\,t_{OFF}$ and t_{OS} are adjustable from 0.02 to 1 seconds. The Light-/Dark-Switch (Left, outer switch) is shown in the "Dark ON" position.

Туре	Description	Notes
-Z	OFF delay timer	Adjustable time interval
	one shot timer	(0.02 s - 1 s)
	ON delay timer	
	ON delay timer / OFF delay timer	
	ON delay timer / one shot timer	

