



Model Number

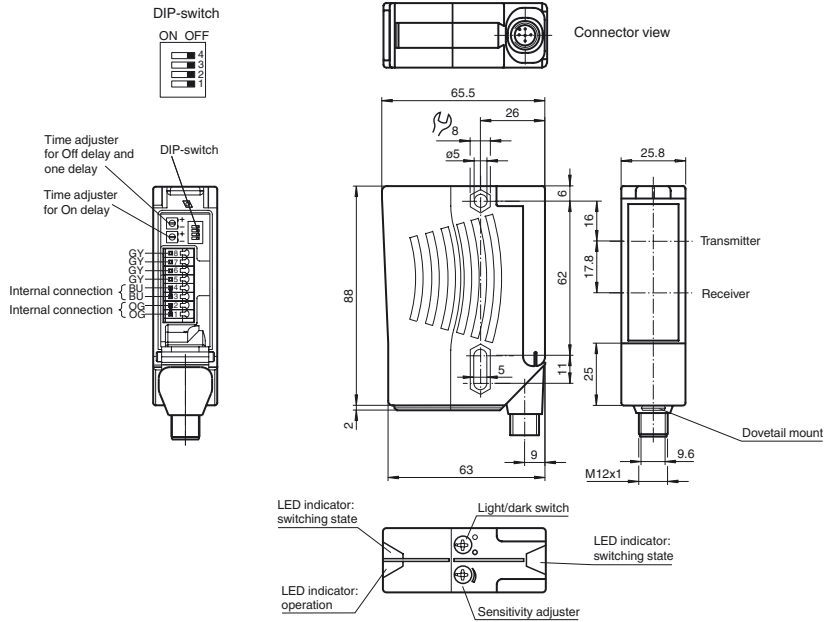
RL28-55-V-Z/76a/82b/110/112

Retroreflective sensor
with metal connector M12; 5-pin, 90°
convertible

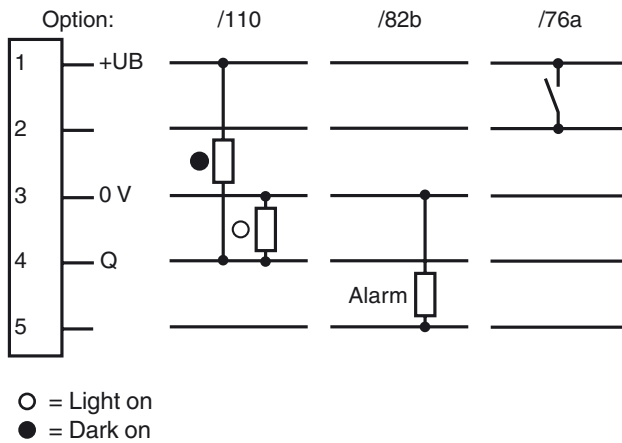
Features

- Foreground suppression, suited to recording of sheet-shrink-wrapped objects
- Ultra bright LEDs for power on, pre fault indication and switching state
- Programmable time function GAN, GAB, IAB and GAN-IAB as double function
- Powerful push-pull output
- Not sensitive to ambient light, even with switched energy saving lamps
- Waterproof, protection degree IP67

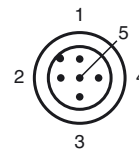
Dimensions



Electrical connection



Pinout



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Technical data**General specifications**

Effective detection range	0 ... 13 m
Reflector distance	0.5 ... 13 m (blind range 0 ... 0.2 m faded out)

Threshold detection range	17 m
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Reference target	H85-2 reflector
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Light source	LED
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Light type	modulated visible red light , 660 nm
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Diameter of the light spot	approx. 220 mm at a distance of 13 m
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Angle of divergence	emitter 1.2° receiver 2°
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Ambient light limit	80000 Lux
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Functional safety related parameters

MTTF _d	1140 a
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Mission Time (T _M)	20 a
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Diagnostic Coverage (DC)	0 %
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Indicators/operating means

Operating display	LED green
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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
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Controls	sensitivity adjustment (Adjustment to < 25% of the effective operating range) , Light/Dark switch
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Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
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Ripple	10 %
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No-load supply current	I ₀	40 mA
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Input

Test input	emitter deactivation with +U _B
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Output

Output of the pre-fault indication	1 PNP, inactive when falling short of the stability control for 10s; immediately inactive if 4 light beam interruptions take place
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Switching type	light/dark on, switchable . (selectable, light/dark switching is only activated if the receiver has 'dark on' selected.)
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Signal output	1 push-pull output, short-circuit protected, reverse polarity protected
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Switching voltage	max. 30 V DC
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Switching current	max. 100 mA
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Switching frequency	f	1000 Hz
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Response time	0.5 ms
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Timer function	ON delay (GAN), OFF delay (GAB), one shot (IAB), ON delay-one shot (GAN-IAB), ON delay-OFF delay (GAN-GAB), programmable adjustment interval 0.02 s ... 1 s
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Ambient conditions

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

Protection degree	IP67
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Connection	5-pin, M12 x 1 connector, 90° rotatable
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Material

Housing	Plastic ABS
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Optical face	plastic
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Connector	metal
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Mass	approx. 112 g
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Compliance with standards and directives

Standard conformity	
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Product standard	EN 60947-5-2:2007
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Approvals and certificates

UL approval	cULus
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CCC approval	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.
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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

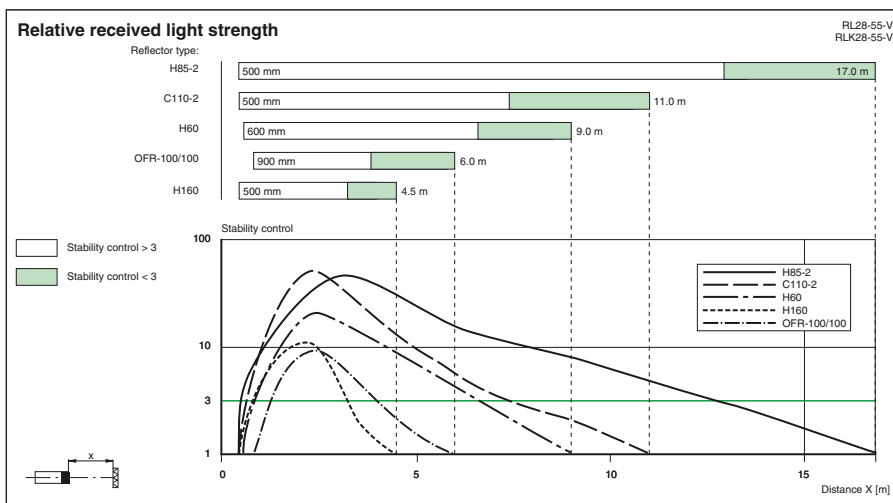
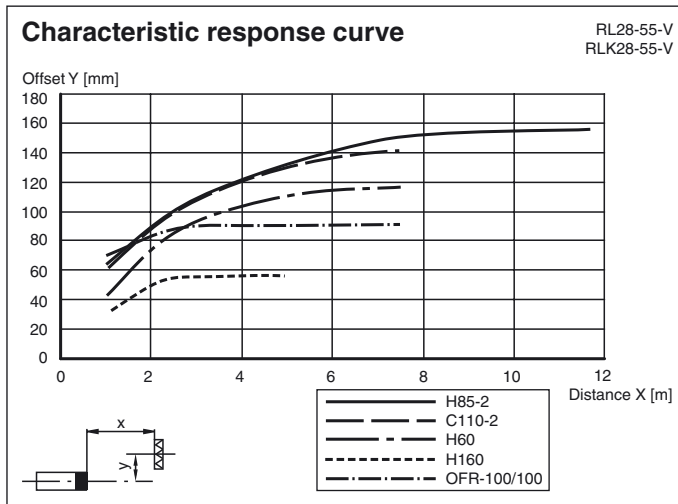
Mounting bracket for rear wall mounting

OMH-RL28-C

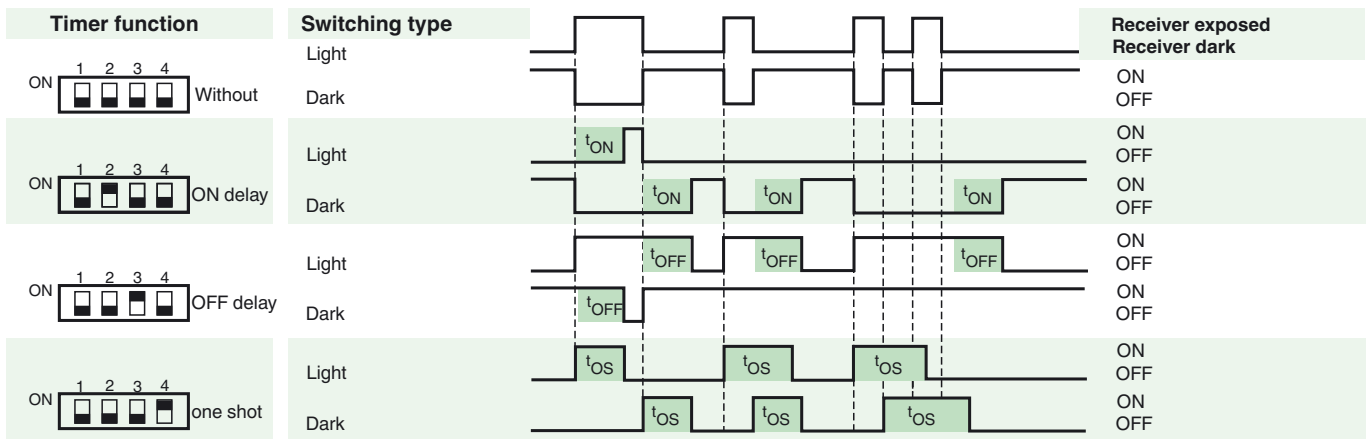
Protective cover

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

Curves/Diagrams



Timer functions



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.

Type	Description	Notes
-Z	OFF delay timer	Adjustable time interval (0.02 s - 10 s)
	one shot timer	
	ON delay timer	
	ON delay timer / OFF delay timer	
	ON delay timer / one shot timer	

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