



**Model Number**

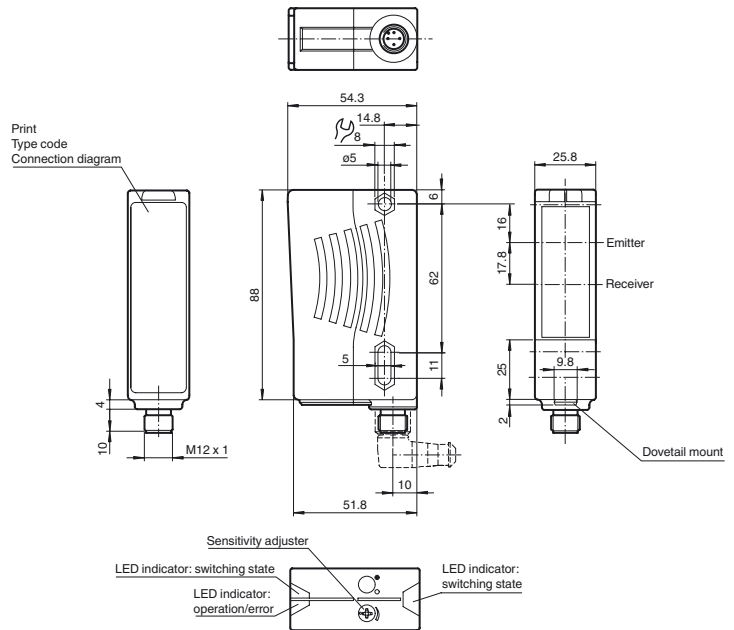
**RL28-55-V-B3B/73c**

Retroreflective sensor  
with 4-pin, M12 x 1 plastic connector

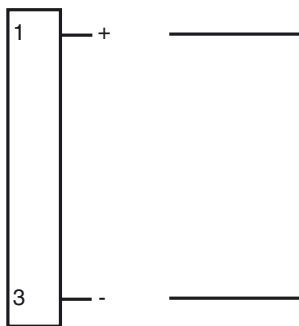
**Features**

- Sensor with AS interface according to Spec. 2.11
- Foreground suppression, suited to recording of sheet-shrink-wrapped objects
- Ultra bright LEDs for power on, pre fault indication and switching state
- Not sensitive to ambient light, even with switched energy saving lamps
- Waterproof, protection degree IP67
- Protection class II

**Dimensions**

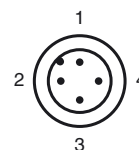


**Electrical connection**



- = Light on
- = Dark on

**Pinout**



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Subject to modifications without notice

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

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

Germany: +49 621 776-4411  
fa-info@pepperl-fuchs.com

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

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

**Functional safety related parameters**

MTTF <sub>d</sub>	1390 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	60 %

**Indicators/operating means**

Operating display	dual-LED green/red green: AS-Interface voltage, normal operation red: communication error or address 0 red/green flashing: peripherie fault
Function display	LED yellow: 1. LED lit constantly: signal > 2 x switching point (function reserve) 2. LED flashes: signal between 1 x switching point and 2 x switching point 3. LED off: signal < switching point
Controls	sensitivity adjustment (Adjustment to < 25% of the effective operating range)

**Electrical specifications**

Operating voltage	U <sub>B</sub>	26.5 ... 31.6 V via AS-Interface network , min. 18.5 V
No-load supply current	I <sub>0</sub>	≤ 40 mA

**Input**

Test input	Data bit D2: 0: emitter on 1: emitter off
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**Output**

Output of the pre-fault indication	data bit D1: 0: stability control falls for approx. 10 s (LED yellow is flashing) or at once 0 after the 4. light beam interruption during the flashtimet 1: sufficient stability control	
Switching type	light/dark on switchable via AS-i bus system	
Signal output	AS-Interface	
Switching frequency	f	1000 Hz
Response time	0.5 ms	
Timer function	Impulsed off-delay IAB, 50 ms, switchable via AS-Interface	

**Ambient conditions**

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

**Mechanical specifications**

Protection degree	IP67
Connection	connector M12 x 1, 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
AS-Interface	EN 50295 AS-i Complete Spec 2.11

**Approvals and certificates**

Protection class	II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1
CCC approval	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

**Accessories****VBP-HH1**

Handheld programming device

**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**

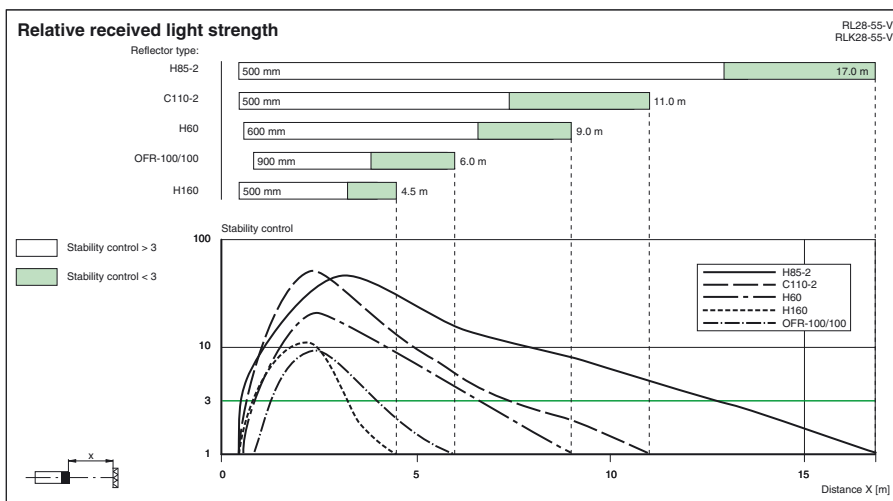
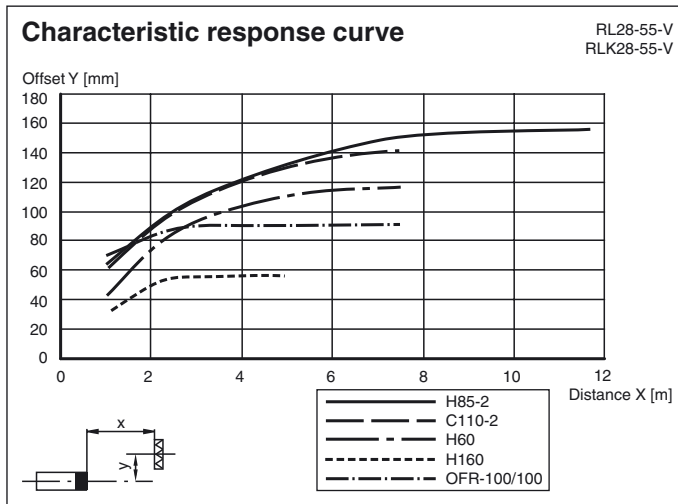
Mounting bracket for rear wall mounting

**OMH-RL28-C**

Protective cover

Suitable reflectors and cable sockets can be found in the Internet

Curves/Diagrams



AS-Interface programming

<F id="261">Address preset to 00, can be changed via Busmaster or programming devices

IO-Code 3  
ID-Code A  
ID2 1

• Data bit

<F id="263">Bitfunction

- D0 Switch output (0=light beam free, 1=light beam interrupted) applies to P1=0
- D1 Pre-fault indicator (0=alarm, 1=no alarm)
- D2 Test function (0=emitter ON, 1=emitter OFF)
- D3 not used

• Parameter bit

<F id="263">Bitfunction (1/0)

- P0 not used
- P1 Light/dark-changeover switch (0=DS, 1=HS)
- P2 Time function IAB, 50 ms (0=time ON, 1=time OFF)
- P3not used

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