



Model Number

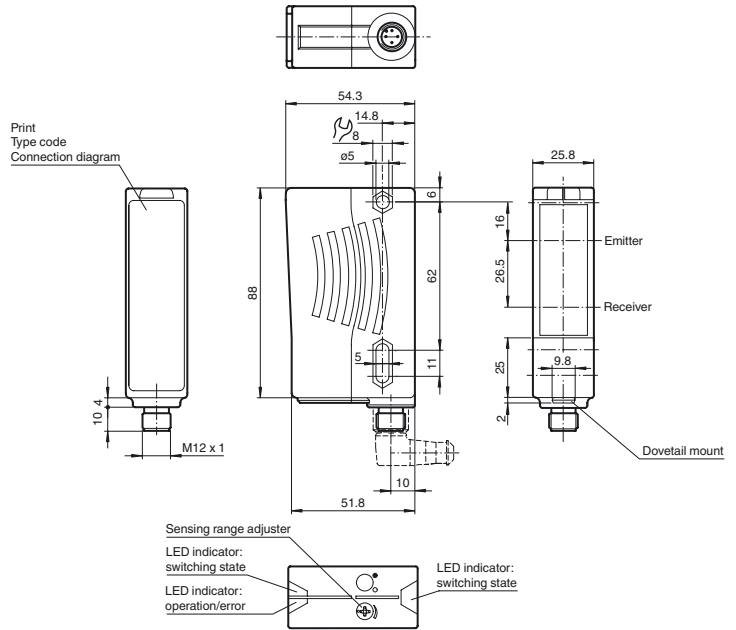
RL28-8-H-700-RT-B3B/73c

Background suppression sensor with 4-pin, M12 x 1 plastic connector

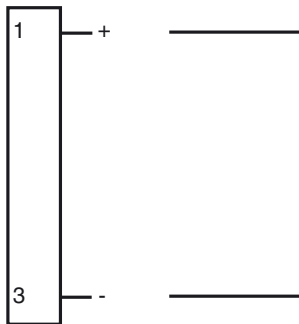
Features

- Sensor with AS interface according to Spec. 2.11
- Ultra bright LEDs for power on and switching state
- Good alignability due to red transmission LED
- Not sensitive to ambient light, even with switched energy saving lamps
- Waterproof, protection degree IP67
- Protection class II

Dimensions

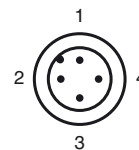


Electrical connection



- = Light on
- = Dark on

Pinout



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Subject to modifications without notice

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Technical data**General specifications**

Detection range	20 ... 700 mm
Detection range min.	20 ... 200 mm
Detection range max.	20 ... 700 mm
Background suppression	max. + 10 % of the upper limit of the detection range
Light source	LED
Light type	modulated visible red light , 660 nm
Black/White difference (6 %/90 %)	< 20 %
Diameter of the light spot	approx. 15 mm at a distance of 700 mm
Angle of divergence	Emitter 1.2°, Receiver 2°
Ambient light limit	50000 Lux

Functional safety related parameters

MTTF _d	1480 a
Mission Time (T _M)	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	2 LEDs yellow ON: object inside the scanning range OFF: object outside the scanning range
Controls	Detection range adjuster

Electrical specifications

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

Input

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

Switching type	light/dark on switchable via AS-i bus system	
Signal output	AS-Interface	
Switching frequency	f	250 Hz
Response time	2 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
Connector	plastic
Mass	70 g

Compliance with standards and directives

Standard conformity	
Product standard	EN 60947-5-2:2007
Standards	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-V3.0-KIT**

AS-Interface Handheld with accessory

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

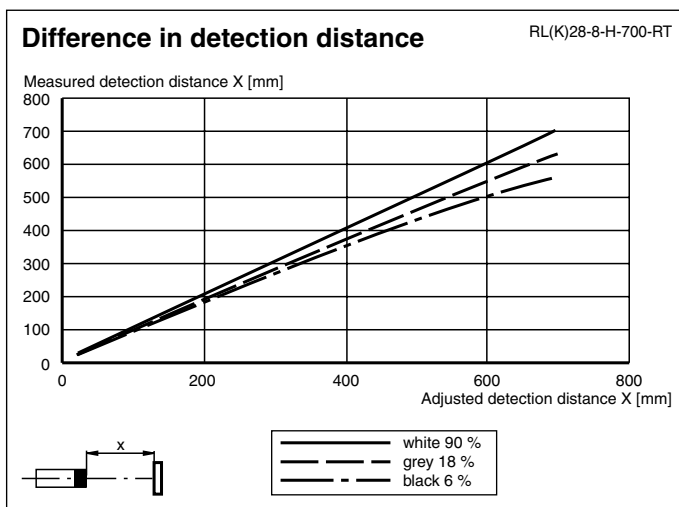
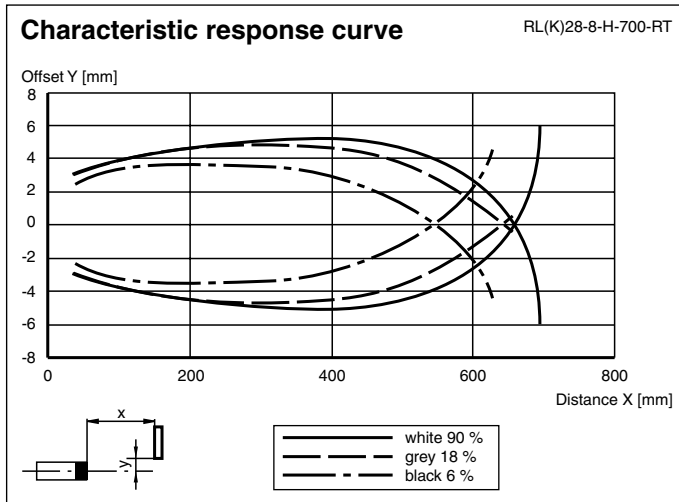
Mounting bracket for rear wall mounting

OMH-RL28-C

Protective cover

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

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=object detected, 1=no object detected) applies to P1=0
D1 not used
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)
P3 not used