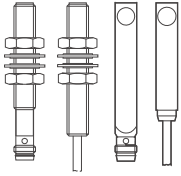


Lichttaster quaderförmig mit Kabel				
BOS0040	BOS Q08M-PS-RD11-02	PNP	Hellschaltung	Schließer
BOS003Y	BOS Q08M-PO-RD11-02	PNP	Dunkelschaltung	Öffner
BOS003U	BOS Q08M-NS-RD11-02	NPN	Hellschaltung	Schließer
BOS003R	BOS Q08M-NO-RD11-02	NPN	Dunkelschaltung	Öffner

Photoelectric Sensors

Red light diffuse sensor BOS 08M/Q08M...-RD11-

No. 853 307 E • Edition 0911



Order Code	Cylindrical sensor with connector			
BOS0006	BOS 08M-PS-RD11-S49	PNP	Light-on	N.O.
BOS0004	BOS 08M-PO-RD11-S49	PNP	Dark-on	N.C.
BOS0002	BOS 08M-NS-RD11-S49	NPN	Light-on	N.O.
BOS0001	BOS 08M-NO-RD11-S49	NPN	Dark-on	N.C.
Quadraform sensor with connector				
BOS0041	BOS Q08M-PS-RD11-S49	PNP	Light-on	N.O.
BOS003Z	BOS Q08M-PO-RD11-S49	PNP	Dark-on	N.C.
BOS003W	BOS Q08M-NS-RD11-S49	NPN	Light-on	N.O.
BOS003T	BOS Q08M-NO-RD11-S49	NPN	Dark-on	N.C.
Cylindrical sensor with cable				
BOS0005	BOS 08M-PS-RD11-02	PNP	Light-on	N.O.
BOS0003	BOS 08M-PO-RD11-02	PNP	Dark-on	N.C.
BOS014N	BOS 08M-NS-RD11-02	NPN	Light-on	N.O.
BOS014M	BOS 08M-NO-RD11-02	NPN	Dark-on	N.C.
Quadraform sensor with cable				
BOS0040	BOS Q08M-PS-RD11-02	PNP	Light-on	N.O.
BOS003Y	BOS Q08M-PO-RD11-02	PNP	Dark-on	N.C.
BOS003U	BOS Q08M-NS-RD11-02	NPN	Light-on	N.O.
BOS003R	BOS Q08M-NO-RD11-02	NPN	Dark-on	N.C.

Safety Notes



These photoelectric sensors may not be used in applications where personal safety depends on proper function of the devices (not safety designed per EU machine guideline). Read these operating instructions carefully before putting the device into service.



Exempt Group according to IEC 62471:2006-07. DO NOT STARE INTO THE LIGHT BEAM! Danger of glare and irritation! The sensor must be installed so that no direct looking into the light source is possible even during operation.

CE The CE Marking confirms that our products conform to the EC Directives 2004/108/EEC (EMC) and the EMC Law.

In our EMC Laboratory, which is accredited by the DATEch for Testing of Electromagnetic Compatibility, proof has been documented that these Balluff products meet the EMC requirements of the harmonized standard EN 60947-5-2.

For conducted HF-disturbances an external protection is recommended e.g. capacitors (≥ 20 nF) to ground (please refer to "Information EMC protection" drawing No. 864234).

For surge withstand capability IVW an external protection circuit is recommended (please refer to "Information EMC protection" drawing No. 825345).

Installation

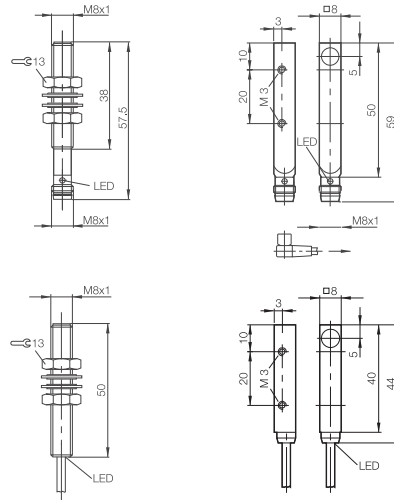


Fig. 1: Dimensions

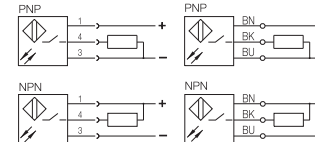
Indicators

Yellow LED: Output function indicator. The LED shows 3 different states:

- LED off: No object detected.
- LED on: Object detected.
- LED flashes: Contamination/signal not stable.

Connections

Light-on



Dark-on

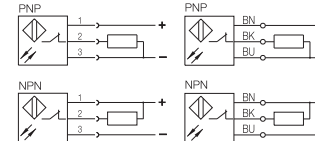


Fig. 2: Connection diagrams

Pin	Light-on	Pin	Dark-on
1	10...30 V DC	1	10...30 V DC
3	0 V	3	0 V
4	N.O.	2	N.C.

Fig. 3: Connector pin assignments

Settings

1. Position the sensor for a reliable detection of the object: The LED turns on. If the object is not detected, reduce the distance.
2. Remove the object. The background must not be detected: The LED turns off. If the background is detected, extend the distance.

Accessories

- BCC 030K connector, straight, no LED, 2 m long, 3-pin (for connector-type sensors ...-S49)
- BCC 0317 connector, right-angle, no LED, 2 m long, 3-pin (for connector-type sensors ...-S49)

Technical Data

Optical

Range	0...55 mm
Recommended range	0...50 mm
Emitter	red light, 640 nm

Electrical

Supply voltage U_B	10...30 V DC
Ripple	$\leq 10\%$
No-load current I_0	≤ 20 mA
Effective operating current I_e	100 mA
Voltage drop U_d at I_e	≤ 2 V
Output	PNP or NPN
Output current	100 mA
Short circuit protected	yes
Interference protected	yes
Output function dep. on model	Light-/dark-on

Mechanical

Connection type	
Connector	M8, 3-pole
Cable	2 m, PUR, 3 x 0.14 mm ²
Housing material	
cylindrical type	CuZn nickel plated
quadraform type	Gd-Zn nickel plated
Active surface material	PMMA
Housing dimensions	
cylindrical type, connector	M8 x 1 x 57,5 mm
cylindrical type, cable	M8 x 1 x 50 mm
quadraform type, connector	8 x 8 x 59 mm
quadraform type, cable	8 x 8 x 44 mm
Weight	
Cable version	47 g
Connector version	13 g

Displays

Output function indicator	yellow LED
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Time data

Turn-on delay	1,25 ms
Turn-off delay	1,25 ms
Switching frequency f	400 Hz

Ambient

Ambient temperature T_a	-10 bis +60 °C
Enclosure rating per IEC 60529	IP 67
Ambient light rejection	per EN 60947-5-2

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