

1) Emitter



Basic features

| | |
|------------------------|-----------------------------|
| Approval/Conformity | CE UKCA cULus WEEE |
| Basic standard | IEC 60947-5-2 |
| Principle of operation | Photoelectric sensor |
| Reference receiver | BOS Q08M-...-LE21-.. |
| Series | Q08M |
| Style | Square Connection 90° |

Display/Operation

| | |
|----------|----|
| Adjuster | no |
|----------|----|

Electrical connection

| | |
|-----------------------------|----------------------|
| Cable diameter D | 3.00 mm |
| Cable length L | 2 m |
| Conductor cross-section | 0.14 mm ² |
| Connection | Cable, 2.00 m, PUR |
| Number of conductors | 3 |
| Polarity reversal protected | yes |

Electrical data

| | |
|---|-------------|
| No-load current I _{o max.} at U _e | 10 mA |
| Operating voltage U _b | 10...30 VDC |
| Rated insulation voltage U _i | 75 V DC |
| Rated operating voltage U _{e DC} | 24 V |
| Ripple max. (% of U _e) | 15 % |

Environmental conditions

| | |
|-------------------------|---|
| Ambient temperature | -5...55 °C |
| EN 60068-2-27, Shock | Half-sinus, 30 gn, 11 ms, 3x6 Half-sinus, 100 gn, 2 ms, 3x8000 |
| EN 60068-2-6, Vibration | 10...55 Hz, amplitude 1 mm, 3x30 min 10...2000 Hz, 1 mm, 30 gn, 3x5 h |
| IP rating | IP67 |

Functional safety

| | |
|--------------|--------|
| MTTF (40 °C) | 1579 a |
|--------------|--------|

Material

| | |
|--------------------------|----------------------------------|
| Housing material | Zinc, Die casting, nickel-plated |
| Material jacket | PUR |
| Material sensing surface | PMMA |
| Surface protection | nickel-plated |

Mechanical data

| | |
|---------------|---------------|
| Dimension | 8 x 44 x 8 mm |
| Mounting part | Screw M3 |

Photoelectric Sensors
BOS Q08M-X-LS21-02
Order Code: **BOS026J**

BALLUFF

Optical features

| | |
|--------------------------------|---------------------------------|
| Average power P_o max. | 390 μ W |
| Beam characteristic | Divergent |
| Laser class per IEC 60825-1 | 1 |
| Light spot size | \varnothing 3.0 mm Light exit |
| Light type | Laser red light |
| Principle of optical operation | Through-beam sensor (Emitter) |
| Pulse duration t max. | 6 μ s |

| | |
|------------------------|-------------------------------|
| Pulse frequency | 8 kHz |
| Pulse power P_p max. | 2 mW |
| Smallest part typ. | 0.28 mm at 1 m. $R_0 = 3.0$ m |
| Wave length | 650 nm |

Range/Distance

| | |
|--------------------------------|---------|
| Range | 0...3 m |
| Rated operating distance S_n | 3 m |

Remarks

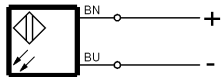
Order accessories separately.

Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Use an R/C (CYJV2) cable with suitable properties for attaching the device.

For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Wiring Diagrams



Opto Symbols

