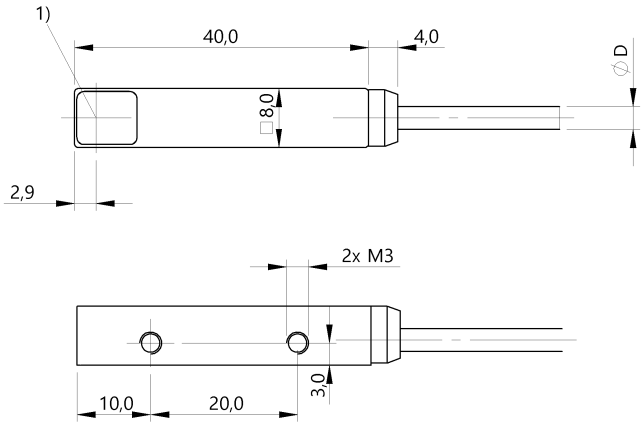
Photoelectric Sensors

# BOS Q08M-X-LS21-03
# Order Code: BOS028M




1) Emitter

## Basic features

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

## Display/Operation

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

## Electrical connection

| | |
|---|---|
| **Cable diameter D** | 3.00 mm |
| **Cable length L** | 3 m |
| **Conductor cross-section** | 0.14 mm² |
| **Connection** | Cable, 3.00 m, PUR |
| **Number of conductors** | 3 |
| **Polarity reversal protected** | yes |

## Electrical data

| | |
|---|---|
| **No-load current Io max. at Ue** | 10 mA |
| **Operating voltage Ub** | 10...30 VDC |
| **Rated insulation voltage Ui** | 75 V DC |
| **Rated operating voltage Ue DC** | 24 V |
| **Ripple max. (% of Ue)** | 15 % |

## Environmental conditions

| | |
|---|---|
| **Ambient temperature** | -5...55 °C |
| **EN 60068-2-27, Shock** | Half-sinus, 30 $g_n$, 11 ms, 3x6<br>Half-sinus, 100 gn, 2 ms, 3x8000 |
| **EN 60068-2-6, Vibration** | 10…55 Hz, amplitude 1 mm, 3x30 min<br>$_{10}$…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 |

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## Optical features

| | |
|---|---|
| **Average power Po max.** | 390 µW |
| **Beam characteristic** | Divergent |
| **Laser class per IEC 60825-1** | 1 |
| **Light spot size** | Ø 3.0 mm Light exit |
| **Light type** | Laser red light |
| **Principle of optical operation** | Through-beam sensor (Emitter) |
| **Pulse duration t max.** | 6 µs |
| **Pulse frequency** | 8 kHz |
| **Pulse power Pp max.** | 2 mW |
| **Smallest part typ.** | 0.28 mm at 1 m. R0 = 3.0 m |
| **Wave length** | 650 nm |

## Range/Distance

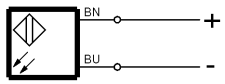
| | |
|---|---|
| **Range** | 0...3 m |
| **Rated operating distance Sn** | 3 m |

## 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