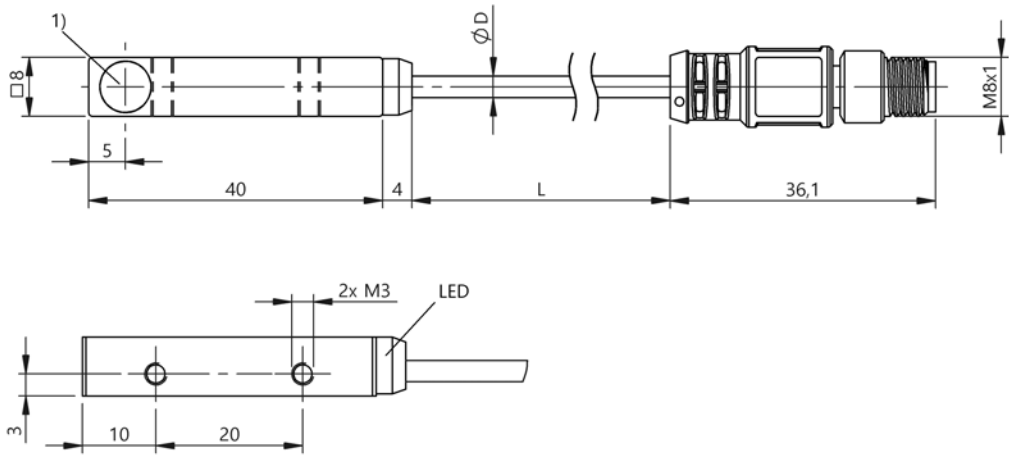


Inductive Sensors

BES Q08ZC-YPL20B-BP00,3-GS75

Order Code: BES05PK

BALLUFF



1) Sensing surface



Basic features

| | |
|---------------------|-----------------------------|
| Application | Object detection |
| Approval/Conformity | CE UKCA cULus WEEE |
| Basic standard | IEC 60947-5-2 |
| Operating mode | SIO Mode IO-Link Mode |

Display/Operation

| | |
|--------------------|-----|
| Function indicator | yes |
| Power indicator | no |

Electrical connection

| | |
|-----------------------------------|----------------------------------|
| Cable diameter D | 2.9 mm |
| Cable length L | 0.3 m |
| Connection | M8x1-Male, 4-pin |
| Connection type | Cable with connector, 0.3 m, PUR |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

Electrical data

| | |
|---|--------------------|
| Load capacitance max. at Ue | 1 µF |
| No-load current I _o max., damped | 18 mA |
| No-load current I _o max., undamped | 13 mA |
| Operating voltage U _b | 10...30 VDC |
| Protection class | II |
| Rated insulation voltage U _i | 250 V AC |
| Rated operating current I _e | 100 mA |
| Rated operating voltage U _e DC | 24 V |
| Ready delay t _v max. | 160 ms |
| Residual current I _r max. | 10 µA |
| Ripple max. (% of U _e) | 15 % |
| Switching frequency | 1200 Hz (SIO mode) |
| Utilization category | DC -13 |
| Voltage drop static max. | 1.2 V |

Environmental conditions

| | |
|-------------------------|---------------------------------------|
| Ambient temperature | -25...70 °C |
| Contamination scale | 3 |
| EN 60068-2-27, Shock | Half-sinus, 30 g _n , 11 ms |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min |
| IP rating | IP67 |

Functional safety

| | |
|--------------|-------|
| MTTF (40 °C) | 106 a |
|--------------|-------|

IO-Link

| | |
|--------------------|-------------|
| IO-Link Profil IDs | 0x0001 SSP0 |
|--------------------|-------------|

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BALLUFF

Interface

| | |
|--------------------------|--|
| Baud rate | 38.4 kBaud |
| Interface | IO-Link 1.1 |
| Interface setting option | Factory setting (Reset) SIO mode/IO-Link mode Teach-In of switchpoints |
| Process data IN | Teaching successfully reply 1 byte Switching state Target too close/far |
| Process data OUT | 1 byte |
| Process data cycle min. | 3 ms |
| Switching output | 2x PNP/NPN/push-pull NO/NC |

Material

| | |
|--------------------------|---------------------------------------|
| Housing material | Zinc, Die casting, Nickel-free coated |
| Material jacket | PUR |
| Material sensing surface | PBT |

Remarks

The sensor is functional again after the overload has been eliminated.
Sensors with IO-Link function are not suitable for series or parallel wiring.
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.

Mechanical data

| | |
|-------------------|--------------------|
| Dimension | 44 x 8 x 8 mm |
| Installation | for flush mounting |
| Size | 8x8 |
| Tightening torque | 0.5 Nm |

Range/Distance

| | |
|-----------------------------|----------|
| Hysteresis H max. (% of Sn) | 16 % |
| Measuring range | 1...2 mm |
| Rated operating distance Sn | 2 mm |
| Switching distance marking | ■ ■ |
| Tolerance Sr | ±10 % |

Connector Drawings



Wiring Diagrams

