



Basic features

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|---------------------|-----------------------------|
| Approval/Conformity | cULus CE UKCA WEEE |
| Basic standard | IEC 60947-5-2 |
| Trademark | Global |

Display/Operation

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

Electrical connection

| | |
|-----------------------------------|----------------------|
| Cable diameter D | 4.60 mm |
| Cable length L | 3 m |
| Conductor cross-section | 0.34 mm ² |
| Connection type | Cable, 3.00 m, PUR |
| Number of conductors | 3 |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

Electrical data

| | |
|---|--------------------|
| Load capacitance max. at Ue | 1 µF |
| Min. operating current I _m | 0 mA |
| No-load current I _o max., damped | 25 mA |
| No-load current I _o max., undamped | 12 mA |
| Operating voltage U _b | 10...30 VDC |
| Output resistance R _a | 2.0 kOhm + D + LED |
| Rated insulation voltage U _i | 75 V DC |
| Rated operating current I _e | 130 mA |
| Rated operating voltage U _e DC | 24 V |
| Rated short circuit current | 100 A |
| Ready delay t _v max. | 10 ms |
| Residual current I _r max. | 80 µA |
| Ripple max. (% of U _e) | 15 % |
| Switching frequency | 150 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 3.8 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) | 1620 a |
|--------------|--------|

Interface

| | |
|------------------|------------------------|
| Switching output | PNP normally open (NO) |
|------------------|------------------------|

Inductive Sensors
BES M18MD-PSC80B-BP03-003
Order Code: **BES04UE**

BALLUFF

Material

| | |
|--------------------------|----------------------|
| Housing material | Brass, nickel-plated |
| Material jacket | PUR |
| Material sensing surface | PBT |

Mechanical data

| | |
|-------------------|--------------------|
| Dimension | Ø 18 x 36 mm |
| Installation | for flush mounting |
| Size | M18x1 |
| Tightening torque | 25 Nm |

Range/Distance

| | |
|----------------------------------|--------|
| Assured operating distance Sa | 6.4 mm |
| Hysteresis H max. (% of Sr) | 15.0 % |
| Rated operating distance Sn | 8 mm |
| Real switching distance sr | 8 mm |
| Repeat accuracy max. (% of Sr) | 5.0 % |
| Switching distance marking | ■ ■ |
| Temperature drift max. (% of Sr) | 10 % |
| Tolerance Sr | ±10 % |

Remarks

Flush: See installation instructions for inductive sensors with extended range 825357.

The sensor is functional again after the overload has been eliminated.

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

