Inductive Sensors
BES M12EE-PSC40B-S04G
Order Code: BES014W

Basic features
Approval/Conformity
- CE
- cULus
- EAC
- WEEE
Basic standard
- IEC 60947-5-2

Display/Operation
Function indicator
- yes
Power indicator
- no

Electrical connection
Connection
- M12x1-Male, 4-pin, A-coded
Polarity reversal protected
- yes
Protection against device mix-ups
- yes
Short-circuit protection
- yes

Electrical data
Load capacitance max. at Ue
- 0.5 µF
Min. operating current Im
- 0 mA
No-load current Io max., damped
- 10 mA
No-load current Io max., undamped
- 3 mA
Operating voltage Ub
- 10...30 VDC
Output resistance Ra
- 33.0 kΩ
Protection class
- II
Rated insulation voltage Ui
- 250 V AC
Rated operating current Ie
- 200 mA
Rated operating voltage Ue DC
- 24 V
Rated short-circuit current
- 100 A
Ready delay tv max.
- 15 ms
Residual current Ir max.
- 50 µA
Ripple max. (% of Ue)
- 15 %
Switching frequency
- 2000 Hz
Utilization category
- DC -13
Voltage drop static max.
- 2 V

Environmental conditions
Ambient temperature
- -25...85 °C
Contamination scale
- 3
EN 60068-2-27, Shock
- Half-sinus, 30 gn, 11 ms
EN 60068-2-6, Vibration
- 55 Hz, amplitude 1 mm, 3x30 min
Protection degree
- IP68

Functional safety
MTTF (40 °C)
- 830 a

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Subject to change without notice: 183464
Internet
www.balluff.com
eCl@ss 9.1: 27-27-01-01
ETIM 6.0: EC002714
BES014W_0.38_2020-03-05
Material

<table>
<thead>
<tr>
<th>Housing material</th>
<th>Stainless steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material sensing surface</td>
<td>LCP</td>
</tr>
</tbody>
</table>

Mechanical data

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Ø 12 x 45 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation</td>
<td>for flush mounting</td>
</tr>
<tr>
<td>Size</td>
<td>M12x1</td>
</tr>
<tr>
<td>Tightening torque</td>
<td>12 Nm</td>
</tr>
</tbody>
</table>

Output/Interface

| Switching output | PNP normally open (NO) |

Range/Distance

| Assured operating distance Sa | 3.2 mm |
| Hysteresis H max. (% of Sr) | 15.0 % |
| Rated operating distance Sn | 4 mm |
| Real switching distance sr | 4 mm |
| Repeat accuracy max. (% of Sr) | 5.0 % |
| Switching distance marking | ■ |
| Temperature drift max. (% of Sr) | 10 % |
| Tolerance Sr | ±10 % |

Remarks

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.

Connector Drawings

![Connector Drawings](image)

Wiring Diagrams

![Wiring Diagrams](image)