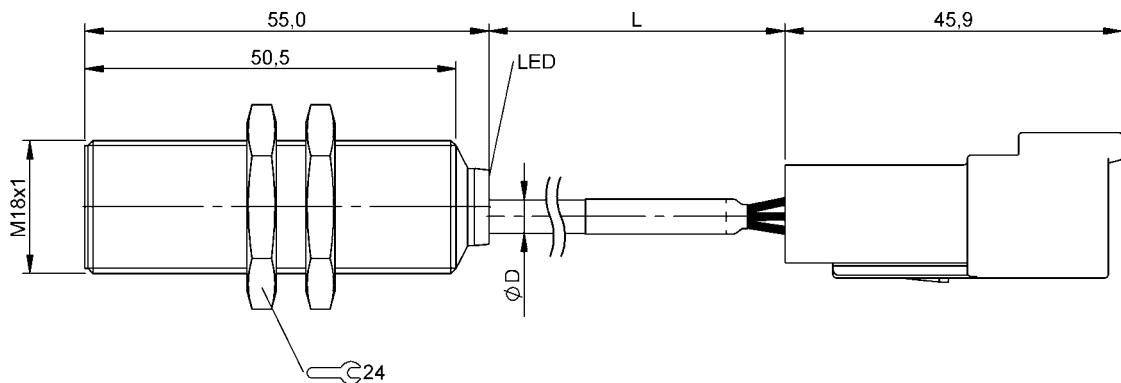


Inductive Sensors

BES M18MI-PSC80B-BP00,15-Z07

Order Code: BES05YF

**BALLUFF**



Basic features

Approval/Conformity	CE UKCA cULus 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	0.15 m
Conductor cross-section	0.34 mm <sup>2</sup>
Connection	DEUTSCH DT04-4P-CE02, 4-pin
Connection type	Cable with connector, 0.15 m, TPU
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at U <sub>e</sub>	0.5 µF
Min. operating current I <sub>m</sub>	0 mA
No-load current I <sub>o</sub> max., damped	8 mA
No-load current I <sub>o</sub> max., undamped	2 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	33.0 kOhm + D
Protection class	II
Rated insulation voltage U <sub>i</sub>	250 V AC
Rated operating current I <sub>e</sub>	200 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Rated short circuit current	100 A
Ready delay t <sub>v</sub> max.	30 ms
Residual current I <sub>r</sub> max.	10 µA
Ripple max. (% of U <sub>e</sub> )	15 %
Switching frequency	1300 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-40...85 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>n</sub> , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP68
IP rating (connector)	IP67

Functional safety

MTTF (40 °C)	465 a
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Interface

Switching output PNP normally open (NO)

Material

Housing material Brass, Nickel-free coated  
Material jacket TPU  
Material sensing surface PBT

Mechanical data

Dimension Ø 18 x 55 mm  
Installation for flush mounting  
Mounting length 50.5 mm  
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) 15 %  
Tolerance Sr ±10 %

Remarks

The sensor is functional again after the overload has been eliminated.  
Flush: See installation instructions for inductive sensors with extended range 825357.  
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



Wiring Diagrams

