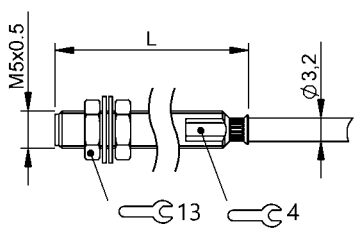


Inductive Sensors  
BES M05ED-PSD08B-ES10-T  
Order Code: BES05RT



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Scope of delivery	Lockwashers D9x0.5 (2x), Nut M5x0.5 (2x)

Display/Operation

Function indicator	no
Power indicator	no

Electrical connection

Cable diameter D	3.15 mm
Cable length L	10 m
Conductor cross-section	0.15 mm <sup>2</sup>
Connection type	Cable, 10 m, Silicone
Electrical version	3-wire
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
No-load current I <sub>o</sub> max., damped	5 mA
No-load current I <sub>o</sub> max., undamped	5 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	Open collector
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating current I <sub>e</sub>	100 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Rated short circuit current	100 A
Ready delay t <sub>v</sub> max.	50 ms
Residual current I <sub>r</sub> max.	50 µA
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	1.5 kHz
Utilization category	DC -13
Voltage drop static max.	2 V

Environmental conditions

Ambient temperature	0...135 °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 55 Hz, amplitude 2 mm, 3x30 min
IP rating	IP67

Functional safety

MTTF (40 °C)	2280 a
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Interface

Switching output	PNP normally open (NO)
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Material

Housing material	1.4104 stainless steel
Material jacket	Silicone
Material sensing surface	Ceramic

Mechanical data

Dimension	Ø 5 x 27 mm
Installation	for flush mounting
Pressure rating max.	10 bar
Pressure rating, note	oil pressure rated
Size	M5x0.5
Tightening torque	1.5 Nm

Range/Distance

Assured operating distance Sa	0.58 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	0.8 mm
Repeat accuracy max. (% of Sr)	10 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

Derating 0°C≤Ta≤110°C: 100mA, 110°CSealing of the thread with a sealing tape made of PTFE.  
The sensor is functional again after the overload has been eliminated.  
Correction factor for damping material cast iron: 0.89...1.05  
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

