



## 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 Ue	1 $\mu$ F
Min. operating current I <sub>m</sub>	0 mA
No-load current I <sub>o</sub> max., damped	5 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>	100.0 kOhm
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.	21 ms
Residual current I <sub>r</sub> max.	30 $\mu$ A
Ripple max. (% of U <sub>e</sub> )	15 %
Switching frequency	2500 Hz
Utilization category	DC -13
Voltage drop static max.	1.5 V

## Environmental conditions

Ambient temperature	-25...70 °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, according to BWN Pr 20
IP rating (connector)	IP67

## Functional safety

MTTF (40 °C)	850 a
--------------	-------

Inductive Sensors  
BES M12MD-PSC40B-BP00,15-Z07  
Order Code: BES05YA



Interface

Switching output PNP normally open (NO)

Material

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

Mechanical data

Dimension  $\varnothing$  12 x 33 mm  
Installation for flush mounting  
Mounting length 27 mm  
Size M12x1  
Tightening torque 10 Nm

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  $\pm$ 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



Wiring Diagrams (Schematic)

