



IND. CONT. EQ.
 81U2
 Class 2 Type 1

Basic features

Additional features	Weld immune
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 U_e	1 μ F
Magnetic field strength, interference field	100 kA/m
Min. operating current I_m	0 mA
No-load current I_o max., damped	15 mA
No-load current I_o max., undamped	10 mA
Operating voltage U_b	10...30 VDC
Protection class	II
Rated insulation voltage U_i	250 V AC
Rated operating current I_e	200 mA
Rated operating voltage U_e DC	24 V
Rated short circuit current	100 A
Ready delay t_v max.	15 ms
Residual current I_r max.	80 μ A
Ripple max. (% of U_e)	10 %
Switching frequency	2500 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-25...70 °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
Magnetic field immune	magnetic field immune (AC/DC)
Protection degree	IP67

Material

Housing material	Brass, PTFE coated
Surface protection	PTFE coated

Inductive Sensors
BES M18MD-PSC12E-S04G-W01
Order Code: BES02K8

BALLUFF

Mechanical data

Dimension	Ø 18 x 50 mm
Installation	non-flush
Size	M18x1
Tightening torque	12 Nm

Output/Interface

Switching output	PNP normally open (NO)
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Range/Distance

Assured operating distance Sa	9.5 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	12 mm
Real switching distance sr	12 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.

1) Do not clamp in this area.

Connector Drawings



Wiring Diagrams

