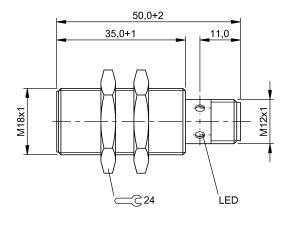
Inductive Sensors BES M18MF1-PSC50A-S04G-W Order Code: BES02K9

BALLUFF





Basic features

Additional features	Factor 1 Weld immune
Approval/Conformity	cULus CE WEEE
Basic standard	IEC 60947-5-2
Trademark	Factor 1
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	1μF
Magnetic field strength, interference field	100 kA/m
Min. operating current Im	0 mA
No-load current lo max., damped	15 mA
No-load current lo max., undamped	10 mA
Operating voltage Ub	1030 VDC
Protection class	II
Rated insulation voltage Ui	250 V AC
Rated operating current le	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.	80 μΑ
Ripple max. (% of Ue)	10 %
Switching frequency	2500 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-2570 °C	
Contamination scale	3	
EN 60068-2-27, Shock	Half-sinus, 30 g _n , 11 ms	
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min	
IP rating	IP67	
Magnetic field immune	magnetic field immune (AC/DC)	
Functional safety		
MTTF (40 °C)	320 a	

Inductive Sensors BES M18MF1-PSC50A-S04G-W Order Code: BES02K9



Interface		Range/Distance	
Switching output	PNP normally open (NO)	Assured operating distance Sa Hysteresis H max. (% of Sr)	4 mm 15.0 %
Material		Rated operating distance Sn	5 mm
Housing material	Brass, PTFE coated	Real switching distance sr	5 mm
•	,	Repeat accuracy max. (% of Sr)	5.0 %
Material sensing surface	LCP/PTFE	Temperature drift max. (% of Sr)	10 %
Mechanical data		Tolerance Sr	±10 %
Dimension	Ø 18 x 50 mm		
Installation	for flush mounting		
Size	M18x1		
Tightening torque	12 Nm		
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

