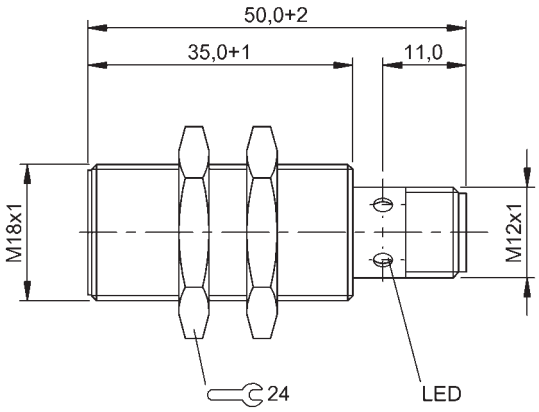
Inductive sensor

BES M18MF1-PSC50A-S04G-W
BES02K9

BALLUFF
sensors worldwide



- **PNP**
- **Normally open (NO)**
- **5.00 mm**
- **Flush (shielded)**
- **Connector, M12x1-S04**

LISTED IND. CONT. EQ. 81U2 for use in the secondary of a class 2 source of supply

IND. CONT. EQ 81U2 for use in the secondary of a class 2 source of supply Environmental - Type 1 Enclosure

General attributes

Additional features	Weld-spatter resistant Factor 1
Approvals / Conformity	cULus CE EAC
Basic standard	IEC 60947-5-2
Enclosure Type per IEC 60529	IP67
Function indicator	Yes
Magnetic field immune	immune to magnetic DC and AC fields
Polarity reversal protected	Yes
Power indicator	No
Protection Class	II
Short circuit protected	Yes
Trademark	Factor 1
MTTF	320 a

Electrical attributes

Connection type	Connector
Eff. operating current Ie	200 mA
Eff. operating voltage Ue DC	24.0 V
Electrical version	DC, direct current
Load capacitance max. (at Ue)	1.000 µF
Magnetic field strength	100 kA/m
Max. no-load cur. Io undamped	10.0 mA
Minimum operating current Im	0 mA
No-load current Io damped max.	15.0 mA
Operating voltage UB max. DC [V]	30.0 V
Operating voltage UB min. DC [V]	10.0 V
Rated insulation voltage Ui	250 VAC
Rated short circuit current	100 A
Ripple max. (% of Ue)	10 %
Switching freq. f max. (at Ue)	2500 Hz
Switching function	Normally open (NO)
Switching output	PNP
Voltage drop static max.	2.5 V

Mechanical attributes

Ambient temperature Ta max.	70 °C
Ambient temperature Ta min.	-25 °C
Assured operating distance Sa	4.00 mm
Connector type	M12x1-S04
Depth	50.0 mm
Diameter d1	M18x1
Eff. operating distance Sr	5.00 mm
Housing material	CuZn
Mech. installation condition	Flush (shielded)
Mounting length	35.0 mm
Rated operating distance Sn [mm]	5.00 mm
Sensing face material	LCP + PTFE
Surface protection	PTFE coating
Tightening torque	12 Nm

Remarks

The sensor is functional again after the overload has been eliminated.

For further information on MTTF/B10d, please refer to the MTTF / B10d Certificate.

Specification of the MTTF value and the B10d value do not represent any binding quality and/or life expectancy guarantees.

