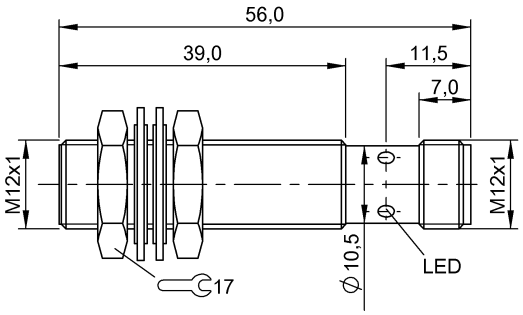
Inductive Sensors

BES M12MG-PSC40A-S04G-W
Order Code: BES03YR



Basic features

Additional features	Factor 1 Weld immune
Approval/Conformity	CE cULus
Basic standard	IEC 60947-5-2
Principle of operation	Inductive sensor
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	1 µF
Magnetic field strength, interference field	100 kA/m
Min. operating current Im	0 mA
No-load current Io max., damped	15 mA
No-load current Io max., undamped	15 mA
Operating voltage Ub	10...30 VDC
Protection class	II
Rated insulation voltage Ui	60 V DC
Rated operating current Ie	200 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	15 ms
Residual current Ir max.	500 µA
Ripple max. (% of Ue)	10 %
Switching frequency	2000 Hz
Utilization category	DC -13
Voltage drop static max.	3 V

Environmental conditions

Ambient temperature	-25...70 °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)

Interface

Switching output	PNP normally open (NO)

Inductive Sensors

BES M12MG-PSC40A-S04G-W
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Material

Housing material	Brass, PTFE coated
Material sensing surface	PPS, GF40

Mechanical data

Dimension	Ø 12 x 56 mm
Installation	for flush mounting
Mounting length	39.00 mm
Size	M12x1
Tightening torque	10 Nm

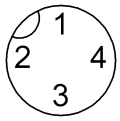
Range/Distance

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 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

The sensor is functional again after the overload has been eliminated.
With connector, e.g. BKS-S 20-... total length = switch length +18 mm.
Specify maximum attainable switching frequency (not per IEC 60947-5-2)

Connector Drawings



Wiring Diagrams (Schematic)

