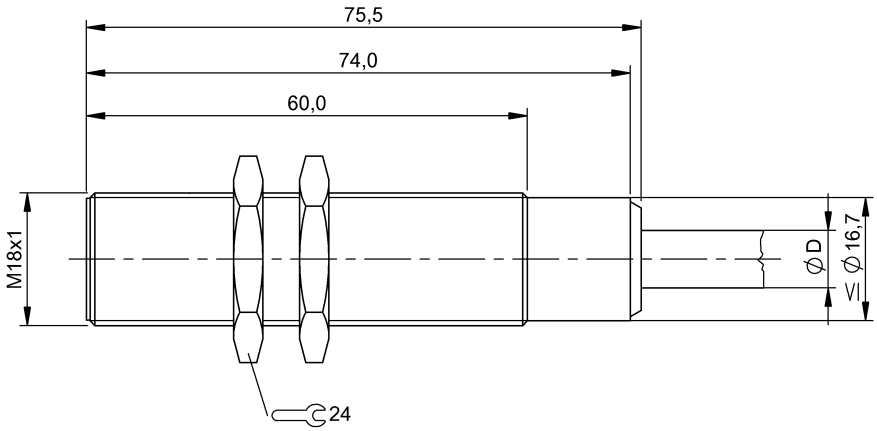
Inductive Sensors

BES 516-105-SA1-05
Order Code: BES02H4



Basic features

Approval/Conformity	CE UKCA WEEE
Base type deviation	Ta …120 °C
Basic standard	IEC 60947-5-2

Display/Operation

Function indicator	no
Power indicator	no

Electrical connection

Cable diameter D	7.80 mm
Cable length L	5 m
Conductor cross-section	0.75 mm²
Connection type	Cable, 5.00 m, Silicone
Number of conductors	4
Polarity reversal protected	yes
Protection against device mix-ups	no
Short-circuit protection	no

Electrical data

Load capacitance max. at Ue	1 µF
Min. operating current Im	0 mA
No-load current Io max., damped	20 mA
No-load current Io max., undamped	20 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	10.0 kOhm + D/10.0 kOhm + D
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	400 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	10 ms
Residual current Ir max.	100 µA
Ripple max. (% of Ue)	15 %
Switching frequency	500 Hz
Utilization category	DC -13
Voltage drop static max.	1.5 V

Environmental conditions

Ambient temperature	-25...120 °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	IP60

Interface

Switching output	PNP normally open/normally closed (NO/NC)

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Material

Housing material	Brass, nickel-plated
Material jacket	Silicone
Material sensing surface	PBT

Mechanical data

Dimension	Ø 18 x 75.5 mm
Installation	for flush mounting
Size	M18x1
Tightening torque	25 Nm

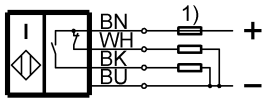
Range/Distance

Assured operating distance Sa	4 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	5 mm
Real switching distance sr	5 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

Ta ≥ 70 °C… ≤ 120 °C: Ie ≤ 150 mA.
Recommendation: After a short circuit check the device for proper function.

Wiring Diagrams



1) For SCP see electrical data