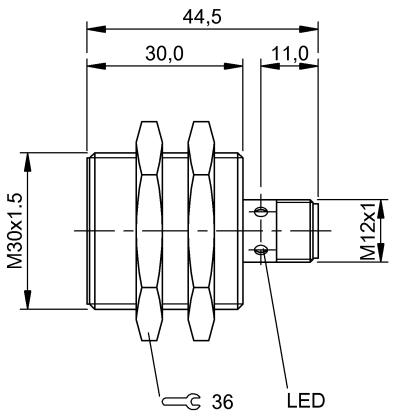
Inductive Sensors

BES 516-359-E5-Y-S4
Order Code: BES00W9



Basic features

Approval/Conformity	CE cULus EAC
Basic standard	IEC 60947-5-2
Principle of operation	Inductive sensor

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
Min. operating current Im	0 mA
No-load current Io max., damped	25 mA
No-load current Io max., undamped	12 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	2.2 kOhm + D + LED
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	130 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	10 ms
Residual current Ir max.	80 µA
Ripple max. (% of Ue)	15 %
Switching frequency	200 Hz
Utilization category	DC -13
Voltage drop static max.	3.5 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

Interface

Switching output	NPN normally open (NO)

Material

Housing material	Brass, nickel-plated
Material sensing surface	PA 12

Mechanical data

Dimension	Ø 30 x 44.5 mm
Installation	for flush mounting
Mounting length	30.00 mm
Size	M30x1.5
Tightening torque	70 Nm

Range/Distance

Assured operating distance Sa	8 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	10 mm
Real switching distance sr	10 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.

Connector Drawings



Wiring Diagrams (Schematic)

