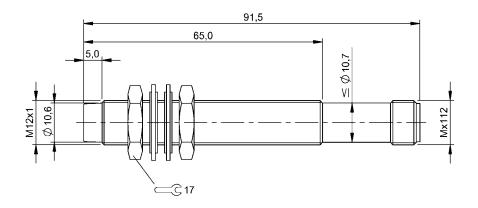
BYLLUFF





basic realures	Ва	sic	features
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Additional features	Function monitoring
Approval/Conformity	CE
	UKCA
	WEEE
Base type deviation	Diagnostic function, Lg
Basic standard	IEC 60947-5-2
Display/Operation	
Function indicator	no
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	0.15 µF
Min. operating current Im	1 mA
No-load current lo max., damped	25 mA
No-load current lo max., undamped	25 mA
Operating voltage Ub	2030 VDC
Output resistance Ra	Open collector
Rated insulation voltage Ui	75 V DC
Rated operating current le	130 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	50 ms
Residual current Ir max.	80 μΑ
Ripple max. (% of Ue)	15 %
Switching frequency	300 Hz
Utilization category	DC -12
Voltage drop static max.	2.5 V

Environmental conditions

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
Functional safety	
MTTF (40 °C)	990 a
Interface	

1/2

PNP normally closed (NC)

eCl@ss 9.1: 27-27-01-01

Switching output

BES 113-3019-SA1-S4 Order Code: BES02M5



Material

Housing material Brass, nickel-plated

Material sensing surface PA 12

Mechanical data

Dimension Ø 12 x 91.5 mm Installation non-flush Mounting length 60.00 mm M12x1 Size Tightening torque 10 Nm

Range/Distance

Assured operating distance Sa 2.9 mm Hysteresis H max. (% of Sr) 15.0 % Rated operating distance Sn 3.7 mm Real switching distance sr 3.7 mm Repeat accuracy max. (% of Sr) 5.0 % Temperature drift max. (% of Sr) 10 % Tolerance Sr -10 %/+20 %

Remarks

Max. cable length: 50 m.

Test pulses ≤ 0.5 ms typ. 160 Hz are superimposed on the output signal which are missing when there is a fault (single fault) in the sensor.

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.

Subject to change without notice: 279445

Connector Drawings



Wiring Diagrams

