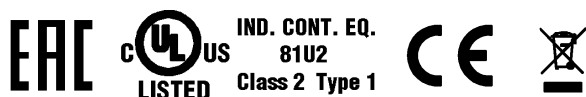


1) Sensing surface



Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Cable diameter D	3.00 mm
Cable length L	2 m
Conductor cross-section	0.14 mm ²
Connection type	Cable, 2.00 m, PUR
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at U _e	0.5 µF
Min. operating current I _m	0 mA
No-load current I _o max., damped	10 mA
No-load current I _o max., undamped	8 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	Open collector
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	100 mA
Rated operating voltage U _e DC	24 V
Rated short circuit current	100 A
Ready delay t _v max.	20 ms
Residual current I _r max.	10 µA
Ripple max. (% of U _e)	10 %
Switching frequency	3000 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-25...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
Protection degree	IP67

Functional safety

MTTF (40 °C)	735 a
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Inductive Sensors
BES G04ED-PSC50F-EP02
Order Code: BES012H

BALLUFF

General data

Approval/Conformity	CE
	cULus
	EAC
	WEEE
Basic standard	IEC 60947-5-2

Material

Housing material	Stainless steel
Material jacket	PUR
Material sensing surface	PET-C

Mechanical data

Dimension	Ø 4 x 35 mm
Installation	non-flush
Size	D4.0

Remarks

Cannot be flush mounted: see installation instructions for inductive sensors with extended switching distance 939224. Avoid pressure and contact in the area of the clear zone cap.

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

EMC: EMC protection circuit required, see 825345. Burst: 1.2 IVW: 2.2

For further information about the 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.

Output/Interface

Switching output	PNP normally open (NO)
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Range/Distance

Assured operating distance Sa	4.05 mm
Hysteresis H max. (% of Sr)	20.0 %
Rated operating distance Sn	5 mm
Real switching distance sr	5 mm
Repeat accuracy max. (% of Sr)	10.0 %
Switching distance marking	■■■
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Wiring Diagrams

