



1) Sensing surface, 2) LED green, 3) LED yellow



### Basic features

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

### Display/Operation

Function indicator	yes
Power indicator	yes

### Electrical connection

Cable diameter D	3.80 mm
Cable length L	0.2 m
Connection	M8x1-Male, 3-pin
Connection type	Cable with connector, 0.20 m, PUR
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 I <sub>m</sub>	0 mA
No-load current I <sub>o</sub> max., damped	15 mA
No-load current I <sub>o</sub> max., undamped	15 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	33.0 kOhm + D
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating current I <sub>e</sub>	200 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Rated short circuit current	100 A
Ready delay t <sub>v</sub> max.	20 ms
Residual current I <sub>r</sub> max.	80 µA
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	150 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

### Material

Housing material	Zinc, Die casting
Material jacket	PUR
Material sensing surface	PA 12

Inductive Sensors  
**BES R01ZC-NSC70B-BP00.2-GS49**  
Order Code: **BES01W1**

# BALLUFF

## Mechanical data

Dimension	32 x 20 x 8 mm
Installation	for flush mounting
Size	32x20x8

## Output/Interface

Switching output	NPN normally open (NO)
------------------	------------------------

## Range/Distance

Assured operating distance $S_a$	5.6 mm
Hysteresis H max. (% of $S_r$ )	15.0 %
Rated operating distance $S_n$	7 mm
Real switching distance $s_r$	7 mm
Repeat accuracy max. (% of $S_r$ )	5.0 %
Temperature drift max. (% of $S_r$ )	10 %
Tolerance $S_r$	±10 %

## Remarks

The sensor is functional again after the overload has been eliminated.  
LED yellow: Function  
LED green: Power

## Connector Drawings



## Wiring Diagrams

