



### Basic features

Approval/Conformity	CE WEEE
Basic standard	IEC 60947-5-2
Target material	Steel

### 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 U <sub>e</sub>	0.15 µF
Min. operating current I <sub>m</sub>	0 mA
No-load current I <sub>o</sub> max., damped	10 mA
No-load current I <sub>o</sub> max., undamped	10 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	Open collector
Pulse lengthening	2.5...250 ms
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
Ripple max. (% of U <sub>e</sub> )	15 %
Utilization category	DC -13
Voltage drop static max.	2 V

### Environmental conditions

Ambient temperature	-25...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>n</sub> , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP65

### Functional safety

MTTF (40 °C)	1275 a
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### Interface

Switching output	PNP normally open (NO)
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### Material

Housing material	Plastic
Material sensing surface	Plastic

### Mechanical data

Dimension	115 x 80 x 30 mm
Pass-through	45.0 mm
Target size min.	Ball D = 9 mm

**Inductive Sensors**  
**BES IKV-045.23-G-Z-S4**  
**Order Code: BES02TY**



**Remarks**

After eliminating the overload, the sensor is functional again after a load-dependent delay time of 5-30 s.

Pulse lengthening adjustable.

Static detection of metallic parts

Sensitivity adjustable

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.

**Connector Drawings**



**Wiring Diagrams**

