

SDBT-BSW-...
Proximity sensor



Operating instructions

8140618
2020-07c
[8140620]



Translation of the original instructions

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1 Applicable Documents

All available documents for the product → www.festo.com/sp.

2 Safety

2.1 Safety

– Before working on the electrics: switch off the voltage supply.

WARNING!

Risk of injury due to electric shock.

- For the electric power supply, use only PELV circuits that ensure a reliable electric disconnection from the mains network.
- Observe IEC 60204-1/EN 60204-1.

2.2 Intended use

This product is intended for sensing the position of magnets (e. g. the piston position) in Festo products. The device is intended for use in an industrial environment.

2.2.1 Area of application and approval

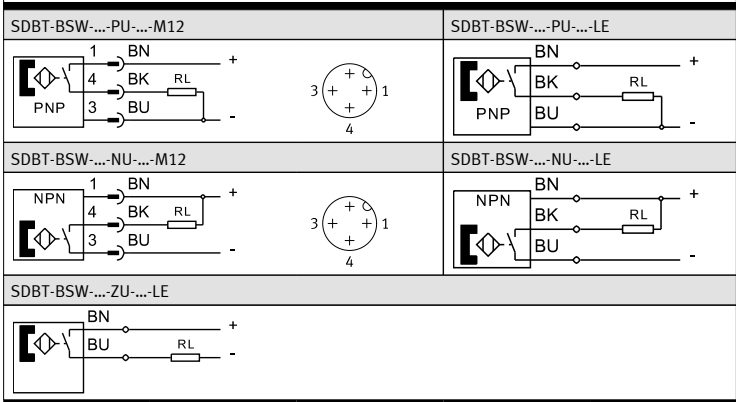
In combination with the UL inspection mark on the product, the information in this section must also be observed in order to comply with the certification conditions of Underwriters Laboratories Inc. (UL) for USA and Canada.

UL approval information	
Product category code	NRKH, NRKH7
File number	E232949
Considered standards	UL 60947-1, CAN/CSA C22.2 No. 60947-1 UL 60947-5-2, CAN/CSA C22.2 No. 60947-5-2
UL mark	 US LISTED Industrial Control Equipment 2MD1

Tab. 1
Only for connection to a NEC/CEC Class 2 supply.

3 Electrical connection

Circuit diagrams



Tab. 2

4 Mechanical installation

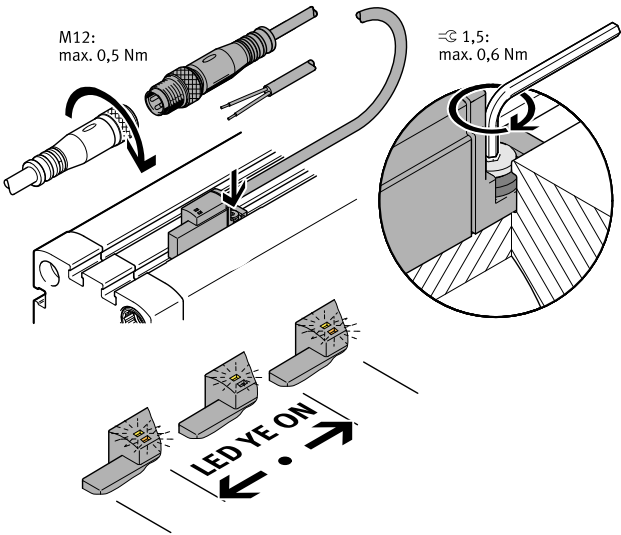


Fig. 1 Mechanical installation

5 Operating conditions

If the SDBT-BSW-...-PU or SDBT-BSW-...-NU is aligned at a right angle to the welding electrode or cable, it can result in maloperations in a limited range (application-dependent).

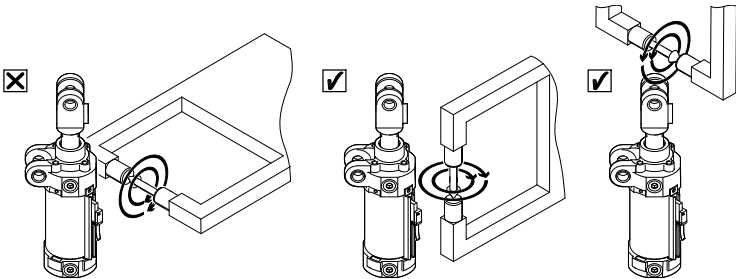


Fig. 2 Operating conditions

Possible remedy:

- Adjust the distance between the proximity sensor and the source of malfunction (± 20 mm).
- Adjust the angle between the proximity sensor and the source of malfunction ($\pm 20^\circ$).
- Adjust the strength of the welding current.
- On DW/DWA/DWB cylinders: mount sensor in a different position.

6 Technical data

6.1 Technical data UL

SDBT-BSW-...		
Operating voltage range	[V DC]	10 ... 30
Ambient temperature	[°C]	–25 ... +80
NEMA enclosure type number (Enclosure Type Rating)		Type 1

Tab. 3

6.2 Technical data, general

SDBT-BSW-...-	PU/NU	ZU
Operating voltage range	[V DC]	10 ... 30
Max. output current	[mA]	100
Max. switching capacity	[W]	2.8
Frequency of welding process MFDC	[Hz]	1000
Frequency of welding process AC	[Hz]	50 ... 60
Ambient temperature	[°C]	–25 ... +85
Ambient temperature with flexible cable installation	[°C]	–5 ... +80
Degree of protection		IP65, IP68

Tab. 4