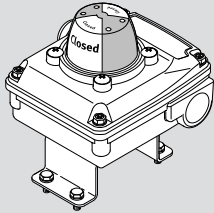


SRBC-...-EX6

Limit switch box



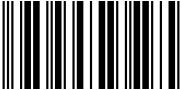
FESTO

Festo SE & Co. KG
Ruiter Straße 82
73734 Esslingen
Germany
+49 711 347-0

www.festo.com

Addendum document | Operating conditions EX

8246867
2025-10h
[8246869]


8246867

Original instructions

© 2025 all rights reserved to Festo SE & Co. KG

1 Identification EX

Marking		Certificate
	Ex ia IIC T6...T5 Ga Ex ia IIIC Txx°C Da	IECEx FTZU 17.0017X
 	II 1G II 1D Ex ia IIC T6...T5 Ga Ex ia IIIC Txx°C Da	FTZU 17 ATEX 0105X
	Ex ia IIC T6...T5 Ga Ex ia IIIC T200XX°C Da	2020322304001715 Applied Standards GB/T 3836.1 GB/T 3836.4
 	II 1G II 1D Ex ia IIC T6...T5 Ga Ex ia IIIC Txx°C Da	

Tab. 1: Identification EX

2 Applicable documents

Documents	Product	Table of contents
Operating instructions	Limit switch box SRBC-...	–

Tab. 2: Applicable documents

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

3 Safety

3.1 Safety instructions

- The device can be used under the stated operating conditions in explosive gas atmosphere zones 0, 1 and 2 and in explosive dust atmosphere zones 20, 21 and 22.
- All work must be carried out outside of explosive areas.
- Use only approved accessories.

3.2 Intended use

The limit switch box is intended for recording, electrical feedback and optical display of the end positions of drives. Semi-rotary drives with a mechanical interface in accordance with VDI/VDE Guideline 3845 are suitable for the operation.

3.3 Identification X: special conditions

- The device contains light alloy parts and must be protected against impact and friction when is used and transported in hazardous areas.
- If the device is used in zone 0 and explosion group IIC, the plastic part of the housing may build up an ignition-capable level of electrostatic charge. The device must not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge. The device should only be cleaned with a damp cloth.
- If the device is used in a potentially explosive dust atmosphere, the surface of the housing may build up an ignition-capable level of electrostatic charge. The device must not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge.
- If the device is used in a potentially explosive dust atmosphere, certified cable connectors and blanking plugs must be used in accordance with EN 60079-1 or EN 60079-7 with appropriate IP code according to EN 60529.
- Protect limit switch box from mechanical impact.

4 Function

The rotary motion of the semi-rotary drive mounted on the limit switch box is transmitted to the shaft and the position indicator of the limit switch box. The limit switch box reports the position of the semi-rotary drive to the higher-order system.

5 Application

- To guarantee the intrinsic safety:
- Connect sensors to the related equipment of the following type of (ignition) protection:
 - [Ex ia IIC]
 - [Ex ia IIIC]

6 Maintenance and care

- If used as intended, the device is maintenance-free.
- Repairs are not possible. Please contact your Festo technical consultant.
- Protect surfaces from excessive heat.
- Only clean the device with a damp cloth. Do not use the following agents:
 - Abrasives, alcohol, solvents

7 Technical data

SRBC-...		-ZC-...-EX6	-1WG-...-EX6
Min. ambient temperature	[°C]	–20	–40
Effective inner inductance Li	[μH]	100	≈ 0
Effective inner capacitance Ci	[nF]	100	≈ 0
Switching function		damped or undamped in end position	
Mounting dimensions		in accordance with VDI/VDE 3845	
Approved cable diameter	[mm]	6 ... 12	–
Current consumption			
Calibrating plate not recorded	[mA]	≥ 3	–
Calibrating plate recorded	[mA]	≤ 1	–
Setting range of sensors	[°]	0 ... 360	
Sensing range of position indicator	[°]	0 ... 90	
Degree of protection		IP67 in accordance with IEC 60529	IP66 in accordance with IEC 60529
Materials			
Housing, feet		Painted die-cast aluminium	
Seals		NBR	Silicone
Cable fittings		PA	–
Blanking plug		PA	–
Control shaft		high-alloy stainless steel	
Socket head screw		high-alloy stainless steel	

Tab. 3

Electrical characteristic values Gas ¹⁾						
Gas	Max. input values			T _{amax} [°C] = maximum ambient temperature		
Category	U _i [V]	I _i [mA]	P _i [mW]	T6	T5	T4 ... T1
SRBC-...-ZC-...-EX6						
1G/2G	16	25	34	73	80	80
1G/2G	16	25	64	66	80	80
1G/2G	16	52	169	45	60	80
1G/2G	16	76	242	30	45	74
SRBC-...-1WG-...-EX6						
1G/2G	30	100	1000	80	80	80

1) www.festo.com/sp ➔ Certificates

Tab. 4

Electrical characteristic values Dust ¹⁾							
Dust	Max. input values			T _s [°C] = maximum surface temperature			
Category	U _i [V]	I _i [mA]	P _i [mW]	T _a = 40 °C	T _a = 60 °C	T _a = 70 °C	T _a = 80 °C
SRBC-...-ZC-...-EX6							
1D	16	25	34	42	62	72	82
1D	16	25	64	43	63	73	83
1D	16	52	169	49	69	79	89
SRBC-...-1WG-...-EX6							
1D/2D	30	100	1000	–	–	T _s = T _a	T _s = T _a

1) www.festo.com/sp ➔ Certificates

Tab. 5