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LS-S11-ZB - Safety position switch, 1NO+1NC, insulated material, +actuator ZB, screw connection



106876 LS-S11-ZB

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106876 LS-S11-ZB

Safety position switch, 1NO+1NC, insulated material, +actuator ZB, screw connection

Alternate Catalog No.

LS-S11-ZB

EL-Nummer (Norway)

4356197

Safety position switch, Basic function: Position switches, Safety position switches, Part group reference: LS(4)...ZB, Product range: Safety position switches, Degree of Protection: IP66, Features: Complete unit, Ambient temperature: -25 - +70 °C, Description: With the actuator inserted, the N/O contact is open and the NC contact is closed., Contacts N/O = Normally open: 1 N/O, Contacts N/C = Normally closed: 1 NC, Notes: = safety function, by positive opening to IEC/EN 60947-5-1, Housing: Insulated material, Connection type: Screw terminal, Standards: IEC/EN 60947

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Delivery program

Basic function

Position switches

Safety position switches

Part group reference

LS(4)...ZB

Product range

Safety position switches

Degree of Protection

IP66

Features

Complete unit

Ambient temperature

-25 - +70 °C

Description

With the actuator inserted, the N/O contact is open and the NC contact is closed.

Contacts

N/O = Normally open

1 N/O

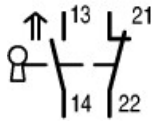
N/C = Normally closed

1 NC

Notes

□ = safety function, by positive opening to IEC/EN 60947-5-1

Contact sequence



Housing

Insulated material

Connection type

Screw terminal

Notes

Switch must never be used as a mechanical stop!

Actuator can be repositioned for horizontal or vertical mounting.

The operating heads can be turned manually in 90° steps to suit the specified level of actuation.

With the actuator inserted, the N/O contact is open and the N/C contact is closed.

For degree of protection IP65, use V-M20 (206910) cable glands with connecting thread of max. 9 mm length.

Technical data

General

Standards

IEC/EN 60947

Climatic proofing

Damp heat, constant, to IEC 60068-2-78; damp heat, cyclical, to IEC 60068-2-30

Ambient temperature

-25 - +70 °C

Mounting position

As required

Degree of Protection

IP66

Terminal capacitiesSolid

1 x (0.5 - 1.5)

2 x (0.5 - 1.5) mm²

Terminal capacitiesFlexible with ferrule

1 x (0.5 - 1.5)

2 x (0.5 - 1.5) mm²

Terminal screw

PH1

Tightening torque for terminal screw

0.4 Nm

Repetition accuracy

0.15 mm

Contacts/switching capacity

Rated impulse withstand voltage [U_{imp}]

4000 V AC

Rated insulation voltage [U_i]

400 V

Overvoltage category/pollution degree

III/3

Rated operational current [I_e] AC-1524 V [I_e]

6 A

Rated operational current [I_e] AC-15220 V 230 V 240 V [I_e]

6 A

Rated operational current [I_e] AC-15380 V 400 V 415 V [I_e]

4 A

Rated operational current [I_e] DC-13 24 V [I_e]

3 A

Rated operational current [I_e] DC-13 110 V [I_e]

0.6 A

Rated operational current [I_e] DC-13 220 V [I_e]

0.3 A

Supply frequency

max. 400 Hz

Short-circuit rating to IEC/EN 60947-5-1max. fuse

6 A gG/gL

Rated conditional short-circuit current

1 kA

Mechanical variables

Lifespan, mechanical [Operations]

1.5 x 10⁶

Mechanical shock resistance (half-sinusoidal shock, 20 ms)Standard-action contact

25 g
Operating frequency [Operations/h]
□ 1800
Actuation
MechanicalActuating force at beginning/end of stroke
10/5 (plug-in/pull-out) N

Design verification as per IEC/EN 61439

Technical data for design verification

Rated operational current for specified heat dissipation [I_n]

6 A

Heat dissipation per pole, current-dependent [P_{id}]

0.17 W

Equipment heat dissipation, current-dependent [P_{id}]

0 W

Static heat dissipation, non-current-dependent [P_{is}]

0 W

Heat dissipation capacity [P_{diss}]

0 W

Operating ambient temperature min.

-25 °C

Operating ambient temperature max.

+70 °C

IEC/EN 61439 design verification

10.2 Strength of materials and parts10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2 Strength of materials and parts10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

10.2 Strength of materials and parts10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

10.2 Strength of materials and parts10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects

Meets the product standard's requirements.

10.2 Strength of materials and parts10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

10.2 Strength of materials and parts10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts10.2.7 Inscriptions

Meets the product standard's requirements.

10.3 Degree of protection of ASSEMBLIES

Does not apply, since the entire switchgear needs to be evaluated.

10.4 Clearances and creepage distances

Meets the product standard's requirements.

10.5 Protection against electric shock

Does not apply, since the entire switchgear needs to be evaluated.

10.6 Incorporation of switching devices and components

Does not apply, since the entire switchgear needs to be evaluated.

10.7 Internal electrical circuits and connections

Is the panel builder's responsibility.

10.8 Connections for external conductors

Is the panel builder's responsibility.

10.9 Insulation properties10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

10.9 Insulation properties10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

10.9 Insulation properties10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

10.10 Temperature rise

The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.

10.11 Short-circuit rating

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.12 Electromagnetic compatibility

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.13 Mechanical function

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

Sensors (EG000026) / End switch (EC000030)

Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Position switch / Position switch (Type 1) (ecl@ss10.0.1-27-27-06-01 [AGZ382015])

Width sensor

30 mm

Diameter sensor

0 mm

Height of sensor

96 mm

Length of sensor

33.35 mm

Rated operation current I_e at AC-15, 24 V

10 A

Rated operation current I_e at AC-15, 125 V

6 A

Rated operation current I_e at AC-15, 230 V

6 A

Rated operation current I_e at DC-13, 24 V

3 A

Rated operation current I_e at DC-13, 125 V

0.8 A

Rated operation current I_e at DC-13, 230 V

0.3 A

Switching function

Slow-action switch

Switching function latching

No

Output electronic

No

Forced opening

Yes

Number of safety auxiliary contacts

1

Number of contacts as normally closed contact

1

Number of contacts as normally open contact

1

Number of contacts as change-over contact

0

Type of interface

None

Type of interface for safety communication

None

Construction type housing

Cuboid

Material housing

Plastic

Coating housing

Other

Type of control element

Other

Alignment of the control element

Other

Type of electric connection

Other

With status indication

No

Suitable for safety functions

Yes

Explosion safety category for gas

None

Explosion safety category for dust

None

Ambient temperature during operating

25 - 70 °C

Degree of protection (IP)

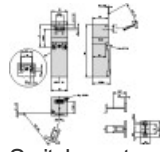
IP65

Degree of protection (NEMA)
13

Approvals

Product Standards
IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14; CE marking
UL File No.
E29184
UL Category Control No.
NKCR
CSA File No.
12528
CSA Class No.
3211-03
North America Certification
UL listed, CSA certified
Degree of Protection
IEC: IP65, UL/CSA Type 3R, 4X (indoor use only), 12, 13

Dimensions



Switch must not be used as a mechanical stop

Terminal marking according to EN 50 013

Travel [mm]

■ = Contact closed

□ = Contact open

Zw = Positive opening sequence

CAD data

- [Product-specific CAD data](#)
(Web)
- [3D Preview](#)
(Web)

DWG files

- [DA-CD-Is_zb_mit_betaetiger](#)
File
(Web)

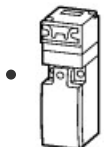
edz files

- [DA-CE-ETNLS-S11-ZB](#)
File
(Web)

Step files

- [DA-CS-Is_zb_mit_betaetiger](#)
File
(Web)

3D drawing

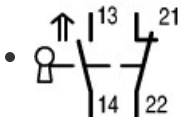


1311086

Line drawing

Small safety position switch

Wiring diagram



131S005

Line drawing

1 make contact, 1 break contact

Product photo

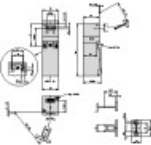


1310PIC-286

Photo

Position switches

Dimensions single product



1310DIM-33

Line drawing

Safety position switches

Instruction Leaflet

- [LS-...-ZB Safety position switch \(IL05208003Z\)](#)
Asset
former AWA1310-2374, IL05208005E
(PDF, 12/2020, multilingual)

Declaration of Conformity

EU

- [DA-DC-00003156](#)
Asset
(PDF)

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