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LS-S02-ZB - Safety position switch, LS(4)...ZB, Safety position switches, Complete unit, 2 NC, Insulated material, Screw terminal, -25 - +70 °C

106874 LS-S02-ZB

Overview Specifications Resources

106874 LS-S02-ZB

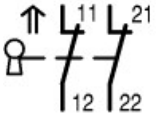
Safety position switch, LS(4)...ZB, Safety position switches, Complete unit, 2 NC, Insulated material, Screw terminal, -25 - +70 °C

Alternate Catalog No.	LS-S02-ZB
EL-Nummer (Norway)	4356195

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/C = Normally closed: 2 NC, Notes: = safety function, by positive opening to IEC/EN 60947-5-1, Housing: Insulated material, Connection type: Screw terminal, Standards: IEC/EN 60947

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/C = Normally closed
2 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) mm^2
Terminal capacitiesFlexible with ferrule
1 x (0.5 - 1.5)
2 x (0.5 - 1.5) mm^2
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]
1.5×10^6
Mechanical shock resistance (half-sinusoidal shock, 20 ms)Standard-action contact

25 g
Operating frequency [Operations/h]
□ 1800
Actuation
Mechanical Actuating 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_{vid}]
0.17 W
Equipment heat dissipation, current-dependent [P_{vid}]
0 W
Static heat dissipation, non-current-dependent [P_{vs}]
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 parts 10.2.2 Corrosion resistance
Meets the product standard's requirements.
10.2 Strength of materials and parts 10.2.3.1 Verification of thermal stability of enclosures
Meets the product standard's requirements.
10.2 Strength of materials and parts 10.2.3.2 Verification of resistance of insulating materials to normal heat
Meets the product standard's requirements.
10.2 Strength of materials and parts 10.2.3.3 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 parts 10.2.4 Resistance to ultra-violet (UV) radiation
Meets the product standard's requirements.
10.2 Strength of materials and parts 10.2.5 Lifting
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts 10.2.6 Mechanical impact
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts 10.2.7 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 properties 10.9.2 Power-frequency electric strength
Is the panel builder's responsibility.
10.9 Insulation properties 10.9.3 Impulse withstand voltage
Is the panel builder's responsibility.
10.9 Insulation properties 10.9.4 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

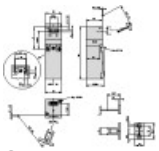
Sensors (EG000026) / End switch (EC000030)
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Position switch / Position switch (Type 1) (ecl@ss10.0.1-27-27-06-01 [AGZ382015])
Width sensor
30 mm
Diameter sensor
0 mm
Height of sensor
96 mm
Length of sensor
33.35 mm
Rated operation current Ie at AC-15, 24 V
10 A
Rated operation current Ie at AC-15, 125 V
6 A
Rated operation current Ie at AC-15, 230 V
6 A
Rated operation current Ie at DC-13, 24 V
3 A
Rated operation current Ie at DC-13, 125 V
0.8 A
Rated operation current Ie 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
2
Number of contacts as normally closed contact
2
Number of contacts as normally open contact
0
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-ls_zb_mit_betaetiger
  File
  (Web)

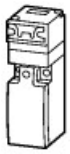
edz files

- DA-CE-ETN.LS-S02-ZB
  File
  (Web)

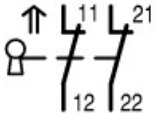
Step files

- DA-CS-ls_zb_mit_betaetiger
  File
  (Web)

3D drawing

- 
  131I086
  Line drawing
  Small safety position switch

Wiring diagram

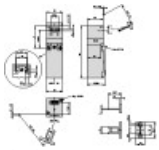
- 

131S006
Line drawing
2 break contacts

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)

Download-Center

- Download-Center (this item)
Eaton EMEA Download-Center - download data for this item
- Download-Center
Eaton EMEA Download-Center

Generate data sheet in PDF format

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