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- German
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- Norwegian Bokmål

Worldwide English

LS-S11D/LS - Position switch, Roller lever, Complete unit, 1 N/O, 1 NC (late-break), Screw terminal, Yellow, Insulated material, -25 - +70 °C, Short

106794 LS-S11D/LS

Overview Specifications Resources

106794 LS-S11D/LS

Position switch, Roller lever, Complete unit, 1 N/O, 1 NC (late-break), Screw terminal, Yellow, Insulated material, -25 - +70 °C, Short

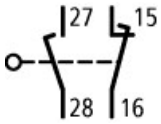
Alternate Catalog No.	LS-S11D-LS
EL-Nummer (Norway)	4315210

Position switch, Basic function: Position switches, Safety position switches, Part group reference: LS(M)-…, Product range: Roller lever, Degree of Protection: IP66, IP67, Features: Complete unit, Ambient temperature: -25 - +70 °C, Description: Short, 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, Positive opening (ZW): yes, Colour Enclosure covers: Yellow, Housing: Insulated material, Connection type: Screw terminal, Standards: IEC/EN 60947

- Delivery program
- Technical data
- Design verification as per IEC/EN 61439
- Technical data ETIM 7.0
- Approvals
- Dimensions

Delivery program

Basic function
Position switches
Safety position switches
Part group reference
LS(M)-…
Product range
Roller lever
Degree of Protection
IP66, IP67
Features
Complete unit
Ambient temperature
-25 - +70 °C
Description
Short
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



Contact travel■ = Contact closed□ = Contact open


Positive opening (ZW)
yes
Colour
Enclosure covers
Yellow
Enclosure covers

Housing
Insulated material
Connection type
Screw terminal
Notes
The operating head can be rotated at 90° intervals to adapt to the specified approach direction.

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, IP67
Terminal capacitiesSolid
1 x (0.5 - 2.5) mm^2
Terminal capacitiesFlexible with ferrule
1 x (0.5 - 1.5) mm^2
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
Control circuit reliabilityat 24 V DC/5 mA [H_F]
< 10^{-7}, < 1 fault in 10^7 operations Fault probability
Control circuit reliabilityat 5 V DC/1 mA [H_F]
< 5 x 10^{-6}, < 1 failure at 5 x 10^6 operations Fault probability
Supply frequency
max. 400 Hz

Short-circuit rating to IEC/EN 60947-5-1 max. fuse
6 A gG/gL
Rated conditional short-circuit current
1 kA
Mechanical variables
Lifespan, mechanical [Operations]
8×10^6
Mechanical shock resistance (half-sinusoidal shock, 20 ms) Standard-action contact
25 g
Operating frequency [Operations/h]
□ 6000
Actuation
Mechanical Actuating force at beginning/end of stroke
1.0/8.0 N
Mechanical Actuating torque of rotary drives
0.2 Nm
Mechanical Max. operating speed with DIN cam
1 m/s
Mechanical **Notes**
for angle of actuation α = 30°/45°

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 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

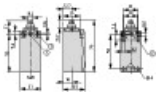
Sensors (EG000026) / End switch (EC000030)
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Position switch / Position switch (Type 1) (ecl@ss10.0.1-27-27-06-01 [AGZ382015])
Width sensor
31 mm
Diameter sensor
0 mm
Height of sensor
61 mm
Length of sensor
33.5 mm
Rated operation current Ie at AC-15, 24 V
6 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
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
Roller lever
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)
IP67
Degree of protection (NEMA)
4X

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: IP66, 67, UL/CSA Type 3R, 4X (indoor use only), 12, 13

Dimensions



□ Tightening torque of cover screws: 0.8 Nm±0.2 Nm
□ only with LS (insulated version)
□ Fixing screws 2 x M4 □ 30
M_A = 1.5 Nm

CAD data

- Product-specific CAD data
  (Web)
- 3D Preview
  (Web)

DWG files

- DA-CD-ls_ls
  File
  (Web)

edz files

- DA-CE-ETN.LS-S11D_LS
  File
  (Web)

Step files

- DA-CS-ls_ls
  File

(Web)

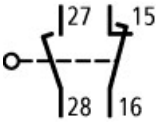
Product photo

- 
  1310PIC-283
  Photo
  Position switches

3D drawing

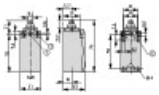
- 131I012
  Line drawing
  Roller lever Eform
- 131I190
  Line drawing
  Roller lever

Wiring diagram

- 

  131S016
  Line drawing
  1 early-make contact, 1 late-break contact

Dimensions single product

- 1310DIM-5
  Line drawing
  Roller lever short
- 131X114
  Line drawing
  Roller lever
- 
  131X117
  Line drawing
  Roller plunger
  Tightening torque of cover screws: 0.8 Nm±0.2 Nm
  only with LS (insulated version)
  Fixing screws 2 x M4 30

Contact travel diagram

- 

  1310DIA-16
  Coordinate visualization
  Contact travel diagram,short roller lever

Instruction Leaflet

- Position switch LS-Titan: Basic unit LS(M) (IL053001ZU)
  Asset
  (PDF, 07/2021, multilingual)

Symbol

- 
  116C064
  Graphic
  Button plate, yellow

Declaration of Conformity

EU

- Limit switch LS-Titan (DA-DC-00003472)
  Asset
  (PDF)

UK

- Limit switch LS-Titan (DA-DC-00003963)
  Asset
  (PDF)

Download-Center

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

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