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Worldwide English



LS-11/L - Position switch, Roller lever, Complete unit, 1 N/O, 1 NC, Cage Clamp, Yellow, Insulated material, -25 - +70 °C, EN 50047 Form E, Long



266110 LS-11/L

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266110 LS-11/L

Position switch, Roller lever, Complete unit, 1 N/O, 1 NC, Cage Clamp, Yellow, Insulated material, -25 - +70 °C, EN 50047 Form E, Long

Alternate Catalog No.

EL-Nummer (Norway)

LS-11/L

4356122

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, Design: EN 50047 Form E, Description: Long, 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: Cage Clamp, Cage-Clamp is a registered trademark of Wago Kontakttechnik, 32432 Minden, Germany., Accessories for the Cage-Clamp terminals from Wago: power comb, gray, Wago Article No. 264-402, Standards: IEC/EN 60947

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

Design

EN 50047 Form E

Description

Long

Contacts

N/O = Normally open

1 N/O

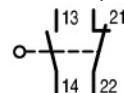
N/C = Normally closed

1 NC □

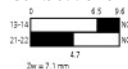
Notes

□ = 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
Cage Clamp

Notes

Cage-Clamp is a registered trademark of Wago Kontakttechnik, 32432 Minden, Germany.
Accessories for the Cage-Clamp terminals from Wago: power comb, gray, Wago Article No. 264-402

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) mm²

Terminal capacitiesFlexible with ferrule

1 x (0.5 - 1.5) mm²

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 reliability at 24 V DC/5 mA [H_F]

< 10⁻⁷, < 1 fault in 10⁷ operations Fault probability

Control circuit reliability at 5 V DC/1 mA [H_F]

< 5 x 10⁻⁶, < 1 failure at 5 x 10⁶ 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 x 10⁶

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_{ud}]

0.17 W

Equipment heat dissipation, current-dependent [P_{ed}]
0 W
Static heat dissipation, non-current-dependent [P_{es}]
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

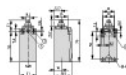
Sensors (EG000026) / End switch (EC000030)
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Position switch /
Position switch (Type 1) (ecl@ss10.0.1-27-27-06-01 [AGZ382015])
Width sensor
31 mm
Diameter sensor
0 mm
Height of sensor
61 mm
Length of sensor
33.5 mm
Rated operation current I_e at AC-15, 24 V
6 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
 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
- $M_A = 1.5 \text{ Nm}$



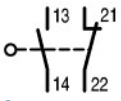
CAD data

- [Product-specific CAD data](#)
(Web)
- [3D Preview](#)
(Web)
- [DA-CD-Is_I](#)
CAD data
DWG files
(Web)
- [DA-CE-ETNLS-11_L](#)
CAD data
edz files
(Web)
- [DA-CS-Is_I](#)
CAD data
Step files
(Web)

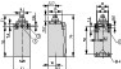
3D drawing

- [131I012](#)
3D drawing
Line drawing
Roller lever E form
- [131I190](#)
3D drawing
Line drawing
Roller lever

Wiring diagram

- 
[Contact sequence](#)
Wiring diagram
Line drawing
1 make contact, 1 break contact


Dimensions single product

- [131X114](#)
Dimensions single product
Line drawing
Roller lever
- 
[131X117](#)
Dimensions single product
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

Product photo

- 
[Photo](#)
Product photo
Photo
Position switch with short roller lever


Contact travel diagram

- 
[Contact diagram](#)
Contact travel diagram
Coordinate visualization
Contact travel diagram, long roller lever

Instruction Leaflet

- [LS-Titan Position switches: Basic device \(IL053001ZU\)](#)
Instruction Leaflet
(PDF, 06/2018, Language independent)

Symbol


- 
[Enclosure covers](#)
Symbol
Graphic
Button plate, yellow

Declaration of Conformity

- [DA-DC-00003068](#)
Declaration of Conformity
(PDF)

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