Specifications

# Eaton 116702



## Catalog Number: 116702

Eaton Moeller® series LS Position switch, Rounded plunger, Basic device, expandable, 2 NC, Cage Clamp, Yellow, Insulated material, -25 - +70 °C, EN 50047 Form B

### General specifications

**Product Name**
Eaton Moeller® series LS Position switch

**Catalog Number**
116702

**EAN**
4015081164479

**Product Length/Depth**
33.5 mm

**Product Height**
76.5 mm

**Product Width**
31 mm

**Product Weight**
0.05 kg

**Certifications**
CE
IEC/EN 60947-5
UL File No.: E29184
CSA
UL 508
CSA-C22.2 No. 14
UL Category Control No.: NKCR
UL
CSA Class No.: 3211-03
CSA File No.: 012528
IEC/EN 60947

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## Product specifications

### Type

Position switch

Safety position switch

### Features

Forced opening

Expandable

Positive opening

### 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.

### 10.2.2 Corrosion resistance

Meets the product standard's requirements.

### 10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

### 10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

### 10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects

Meets the product standard's requirements.

### 10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

### 10.2.5 Lifting

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

### 10.2.6 Mechanical impact

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

## Resources

### Catalogs

eaton-pushbuttons-signal-towers-sensors-assortment-overview-catalog-ca047003en-en-us.pdf

eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf

### Declarations of conformity

DA-DC-00004160.pdf

DA-DC-00004133.pdf

### Drawings

eaton-position-switches-plunger-ls-dimensions-004.eps

eaton-position-switches-plunger-ls-dimensions-002.eps

eaton-position-switches-plunger-ls-3d-drawing.eps

eaton-operating-button-symbol-008.eps

### eCAD model

ETN.116702.edz

### Installation instructions

IL053001ZU

### mCAD model

DA-CD-ls

DA-CS-ls

### Sales notes

eaton-safety-switches-rs-titan-flyer-fl053001en-en-us.pdf

### Wiring diagrams

eaton-position-switches-contact-ls-wiring-diagram-003.eps

### 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.

### 10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

### 10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

### 10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

### Electric connection type

Cable entry metrical

### Enclosure material finishing

Other

### Operating frequency

6000 Operations/h

### Pollution degree

3

### Actuator alignment

Roller cam straight

### Climatic proofing

Damp heat, constant, to IEC 60068-2-78

Damp heat, cyclic, to IEC 60068-2-30

### Enclosure material

Plastic

Insulated material

Enclosure type

Cuboid

Rated operational current (Ie) at DC-13, 110 V

0.6 A

Rated operational current (Ie) at DC-13, 125 V

0.8 A

Rated operational current (Ie) at DC-13, 220 V, 230 V

0.3 A

Rated operational current (Ie) at DC-13, 24 V

3 A

Rated operational current for specified heat dissipation (In)

6 A

Sensor height

61 mm

Sensor length

33.5 mm

Static heat dissipation, non-current-dependent Pvs

0 W

Width sensor

31 mm

Product category

Rounded plunger

Action

2020122120328-Mechanical Limit Switches.xlsm-Data

Rated impulse withstand voltage (Uimp)

4000 V AC

Enclosure color

Yellow Cover

Actuating force at beginning/end of stroke

1.0 N/8.0 N

Explosion safety category for dust

None

Explosion safety category for gas

None

Actuator type

Plunger

Actuating torque of rotary drives

0.2 Nm

Ambient operating temperature - max

70 °C

Ambient operating temperature - min

-25 °C

Diameter sensor

0 mm

Equipment heat dissipation, current-dependent Pvid

0 W

Heat dissipation capacity Pdiss

0 W

Heat dissipation per pole, current-dependent Pvid

0.17 W

Number of contacts (change-over contacts)

0

Number of contacts (normally closed contacts)

2

Number of contacts (normally open contacts)

0

Number of safety auxiliary contacts

2

Rated insulation voltage (Ui)

400 V

Rated operational current (Ie) at AC-15, 125 V

6 A

Rated operational current (Ie) at AC-15, 220 V, 230 V, 240 V

6 A

Rated operational current (Ie) at AC-15, 24 V

6 A

Rated operational current (Ie) at AC-15, 380 V, 400 V, 415 V

4 A

Design

EN 50047 Form B

Mounting position

As required

Rated conditional short-circuit current (Iq)

1 kA

### Overvoltage category

III

### Control circuit reliability

1 failure per 10,000,000 switching operations (Statistically determined, at 24 V DC/5 mA)
1 failure per 5,000,000 switching operations (statistically determined, at 5 V DC/1 mA)

### Connection type

Cage Clamp

### Temperature resistance

100 °C, Contact temperature of roller head

### Degree of protection

IP66/IP67
NEMA Other

### Interface type

None

### Switch function type

Slow-action switch

### Lifespan

8,000,000 mechanical Operations

### Repetition accuracy

0.15 mm (Contacts/switching capacity)

### Shock resistance

25 g, Standard-action contact, Mechanical, Half-sinusoidal shock
20 ms

### Supply frequency

Max. 400 Hz, Contacts

### Suitable for

Safety functions

### Operating speed

Max. 1/0.5 m/s (with DIN cam, mechanical actuation)
For angle of actuation α = 0°/30°

### Short-circuit protection rating

Max. 6 A gG/gL, Fuse, Contacts

### Terminal capacity (flexible with ferrule)

1 x (0.5 - 1.5) mm²

### Terminal capacity (solid)

1 x (0.5 - 2.5) mm²

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