DATASHEET - LS-11S-ZB



Safety position switch, 1N/O+1N/C, insulated material, +actuator ZB, spring clamp connection

Powering Business Worldwide

LS-11S-ZB Part no. Catalog No. 106870 Eaton Catalog No. LS-11S-ZB **EL-Nummer** 0004356198 (Norway)

| | Position switches Safety position switches |
|----|--|
| | LS(4)ZB |
| | Safety position switches |
| | IP66 |
| | Complete unit |
| °C | -25 - +70 |
| | Yes |
| | With the actuator inserted, the N/O contact is open and the NC contact is closed. |
| | Sicherheit geprüft tested safety |
| | |
| | 1 N/O |
| | 1 NC → |
| | e safety function, by positive opening to IEC/EN 60947-5-1 |
| | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| | Insulated material |
| | 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 |
| | °C |

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

| donorui | | |
|----------------------|----|--|
| Standards | | IEC/EN 60947 |
| Climatic proofing | | Damp heat, constant, to IEC 60068-2-78; damp heat, cyclical, to IEC 60068-2-30 |
| Ambient temperature | °C | -25 - +70 |
| Mounting position | | As required |
| Degree of Protection | | IP66 |

| Terminal capacities | | mm ² | |
|--|----------------|-------------------|------------------------------------|
| Solid | | mm ² | 1 x (0.5 - 1.5) 2 x (0.5 - 1.5) |
| Flexible with ferrule | | mm ² | 1 x (0.5 - 1.5) 2 x (0.5 - 1.5) |
| Terminal screw | | | PH1 |
| Tightening torque for terminal screw | | Nm | 0.4 |
| Contacts/switching capacity | | | |
| Rated impulse withstand voltage | U_{imp} | V AC | 4000 |
| Rated insulation voltage | Ui | V | 400 |
| Overvoltage category/pollution degree | | | III/3 |
| Rated operational current | le | Α | |
| AC-15 | | | |
| 24 V | I _e | Α | 6 |
| 220 V 230 V 240 V | I _e | Α | 6 |
| 380 V 400 V 415 V | I _e | Α | 4 |
| DC-13 | | | |
| 24 V | I _e | Α | 3 |
| 110 V | Ie | Α | 0.6 |
| 220 V | I _e | Α | 0.3 |
| Supply frequency | | Hz | max. 400 |
| Short-circuit rating to IEC/EN 60947-5-1 | | | |
| max. fuse | | A gG/gL | 6 |
| Repetition accuracy | | mm | 0.15 |
| Rated conditional short-circuit current | | kA | 1 |
| Mechanical variables | | | |
| Lifespan, mechanical | Operations | x 10 ⁶ | 1.5 |
| Mechanical shock resistance (half-sinusoidal shock, 20 ms) | | | |
| Standard-action contact | | g | 25 |
| Operating frequency | Operations/h | | ≦ 1800 |
| Actuation | | | |
| Mechanical | | | |
| Actuating force at beginning/end of stroke | | N | 10/5 (plug-in/pull-out) |
| | | | |

Design verification as per IEC/EN 61439

| Technical data for design verification | | | |
|---|-------------------|----|--|
| Rated operational current for specified heat dissipation | In | Α | 6 |
| Heat dissipation per pole, current-dependent | P_{vid} | W | 0.17 |
| Equipment heat dissipation, current-dependent | P_{vid} | W | 0 |
| Static heat dissipation, non-current-dependent | P_{vs} | W | 0 |
| Heat dissipation capacity | P _{diss} | W | 0 |
| Operating ambient temperature min. | | °C | -25 |
| Operating ambient temperature max. | | °C | 70 |
| EC/EN 61439 design verification | | | |
| 10.2 Strength of materials and parts | | | |
| 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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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. |
| 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. |
| 10.9.3 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. |
| 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 (II) is observed |

Technical data ETIM 7.0

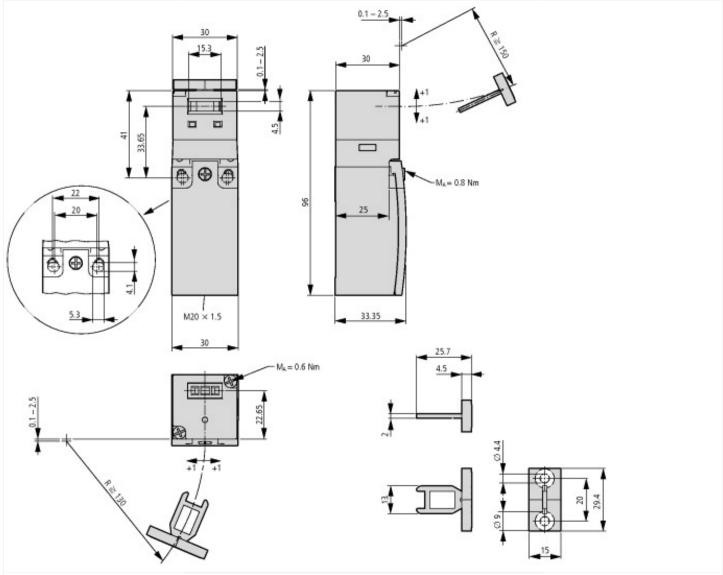
| Technical data ETIM 7.0 | | |
|---|------------------------|---|
| Sensors (EG000026) / End switch (EC000030) | | |
| Electric engineering, automation, process control engineering / Binary sensor tech (ecl@ss10.0.1-27-27-06-01 [AGZ382015]) | nnology, safety-relate | ed sensor technology / Position switch / Position switch (Type 1) |
| Width sensor | mm | 30 |
| Diameter sensor | mm | 0 |
| Height of sensor | mm | 96 |
| Length of sensor | mm | 33.35 |
| Rated operation current le at AC-15, 24 V | А | 10 |
| Rated operation current le at AC-15, 125 V | А | 6 |
| Rated operation current le at AC-15, 230 V | Α | 6 |
| Rated operation current le at DC-13, 24 V | А | 3 |
| Rated operation current le at DC-13, 125 V | А | 0.8 |
| Rated operation current le at DC-13, 230 V | А | 0.3 |
| Switching function | | Quick-break 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 | °C | 25 - 70 |
| 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

Additional product information (links)

IL05208003Z (AWA1310-2374) Safety position switch

IL05208003Z (AWA1310-2374) Safety position switch

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05208003Z2018_06.pdf