

Position switch, Roller lever, Complete unit, 1 N/O, 1 NC, Screw terminal,  
Yellow, Insulated material, -25 - +70 °C, Large



Powering Business Worldwide™

Part no. LS-S11/LB

106786

EL Number

4315204

(Norway)

| General specifications                 |   |
|--|---|
| Product name                           | Eaton Moeller® series LS Position switch  |
| Part no.                               | LS-S11/LB   |
| EAN                                    | 4015081065530   |
| Product Length/Depth                   | 33.5 millimetre   |
| Product height                         | 108 millimetre  |
| Product width                          | 31 millimetre   |
| Product weight                         | 0.064 kilogram  |
| Certifications                         | IEC/EN 60947<br>CSA File No.: 012528<br>IEC/EN 60947-5<br>UL<br>UL Category Control No.: NKCR<br>UL File No.: E29184<br>CSA<br>CSA Class No.: 3211-03<br>CE<br>UL 508<br>CSA-C22.2 No. 14 |
| Product Tradename                      | LS  |
| Product Type                           | Position switch   |
| Product Sub Type                       | None  |
| Catalog Notes                          | Contacts with safety function, by positive opening to IEC/EN 60947-5-1<br>Large<br>The operating head can be rotated 90° to enable adaptation to the specified<br>approach direction      |
| Features & Functions                   |   |
| Electric connection type               | Cable entry metrical  |
| Enclosure color                        | Yellow Cover  |
| Enclosure material                     | Plastic<br>Insulated material   |
| Features                               | Forced opening<br>Positive opening  |
| Switch function type                   | Slow-action switch  |
| General information                    |   |
| Connection type                        | Screw terminal  |
| Degree of protection                   | IP66/IP67<br>NEMA Other   |
| Lifespan                               | 8,000,000 mechanical Operations   |
| Operating frequency                    | 6000 Operations/h   |
| Overvoltage category                   | III   |
| Pollution degree                       | 3   |
| Product category                       | Roller lever  |
| Rated impulse withstand voltage (Uimp) | 4000 V AC   |
| Repetition accuracy                    | 0.15 mm (Contacts/switching capacity)   |
| Suitable for                           | Safety functions  |
| Type                                   | Position switch<br>Safety position switch   |
| Ambient conditions, mechanical         |   |
| Mounting position                      | As required   |
| Shock resistance                       | 25 g, Standard-action contact, Mechanical, Half-sinusoidal shock 20 ms  |
| Climatic environmental conditions      |   |
| Ambient operating temperature - min    | -25 °C  |

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| Ambient operating temperature - max  |  | 70 °C  |
| Climatic proofing  |  | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30   |
| <b>Terminal capacities</b>   |  |  |
| Terminal capacity (flexible with ferrule)  |  | 1 x (0.5 - 1.5) mm <sup>2</sup>  |
| Terminal capacity (solid)  |  | 1 x (0.5 - 2.5) mm <sup>2</sup>  |
| <b>Electrical rating</b>   |  |  |
| Rated conditional short-circuit current (I <sub>q</sub> )                        |  | 1 kA   |
| Rated insulation voltage (U <sub>i</sub> )                                       |  | 400 V  |
| Rated operational current (I <sub>e</sub> ) at AC-15, 220 V, 230 V, 240 V        |  | 6 A  |
| Rated operational current (I <sub>e</sub> ) at AC-15, 24 V                       |  | 6 A  |
| Rated operational current (I <sub>e</sub> ) at AC-15, 380 V, 400 V, 415 V        |  | 4 A  |
| Rated operational current (I <sub>e</sub> ) at DC-13, 110 V                      |  | 0.6 A  |
| Rated operational current (I <sub>e</sub> ) at DC-13, 125 V                      |  | 0.8 A  |
| Rated operational current (I <sub>e</sub> ) at DC-13, 220 V, 230 V               |  | 0.3 A  |
| Rated operational current (I <sub>e</sub> ) at DC-13, 24 V                       |  | 3 A  |
| Short-circuit protection rating  |  | Max. 6 A gG/gL, Fuse, Contacts   |
| Supply frequency   |  | Max. 400 Hz, Contacts  |
| <b>Actuator</b>  |  |  |
| Actuating force at beginning/end of stroke                                       |  | 1.0 N/8.0 N  |
| Actuating torque of rotary drives  |  | 0.2 N·m  |
| Actuator type  |  | Roller lever   |
| Operating speed  |  | Max. 1 m/s (with DIN cam, mechanical actuation)<br>For angle of actuation $\alpha = 30^\circ/45^\circ$   |
| <b>Contacts</b>  |  |  |
| Control circuit reliability  |  | 1 failure per 5,000,000 switching operations (statistically determined, at 5 V DC/1 mA)<br>1 failure per 10,000,000 switching operations (Statistically determined, at 24 V DC/5 mA) |
| Number of contacts (change-over contacts)  |  | 0  |
| Number of contacts (normally closed contacts)                                    |  | 1  |
| Number of contacts (normally open contacts)                                      |  | 1  |
| <b>Safety</b>  |  |  |
| Explosion safety category for gas  |  | None   |
| Explosion safety category for dust   |  | None   |
| <b>Design verification</b>   |  |  |
| Equipment heat dissipation, current-dependent P <sub>vid</sub>                   |  | 0 W  |
| Heat dissipation capacity P <sub>diss</sub>                                      |  | 0 W  |
| Heat dissipation per pole, current-dependent P <sub>vid</sub>                    |  | 0.17 W   |
| Rated operational current for specified heat dissipation (I <sub>n</sub> )       |  | 6 A  |
| Static heat dissipation, non-current-dependent P <sub>vs</sub>                   |  | 0 W  |
| 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.   |
| 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.   |

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| 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 (IL) is observed.                         |

## Technical data ETIM 9.0

Sensors (EG000026) / End switch (EC000030)

Electric engineering, automation, process control engineering / Sensor technology, safety-related sensor technology / Safety-related mechanical switch (sensor technology) / Safety position switch (Type 1) (ecl@ss13-27-27-26-01 [AKE640018])

|  |    |                      |
|--|----|----------------------|
| Width sensor   | mm | 31                   |
| Diameter sensor  | mm | 0                    |
| Height of sensor                                       | mm | 61                   |
| Length of sensor                                       | mm | 33.5                 |
| Rated operation current I <sub>e</sub> at AC-15, 24 V  | A  | 6                    |
| Rated operation current I <sub>e</sub> at AC-15, 125 V | A  | 6                    |
| Rated operation current I <sub>e</sub> at AC-15, 230 V | A  | 6                    |
| Rated operation current I <sub>e</sub> at DC-13, 24 V  | A  | 3                    |
| Rated operation current I <sub>e</sub> at DC-13, 125 V | A  | 0.8                  |
| Rated operation current I <sub>e</sub> at DC-13, 230 V | A  | 0.3                  |
| 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               |
| Housing material                                       |    | Plastic              |
| Coating housing  |    | Other                |
| Type of control element                                |    | Roller lever         |
| Alignment of the control element                       |    | Other                |
| Type of electric connection                            |    | Cable entry metrical |
| 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)                              |    | IP66/IP67            |
| Degree of protection (NEMA)                            |    | Other                |