# DATASHEET - LS-20A-M12A

**Position switch, Rounded plunger, Basic device, expandable, 2 N/O, Cage Clamp, Yellow, Insulated material, -25 - +70 °C, with M12 connector, version A**

Powering Business Worldwide

**Part no.** **LS-20A-M12A**
**178134**

| | |
|---|---|
| Product name | Eaton Moeller® series LS Position switch |
| Part no. | LS-20A-M12A |
| EAN | 4015081734573 |
| Product Length/Depth | 33.5 millimetre |
| Product height | 91.5 millimetre |
| Product width | 31 millimetre |
| Product weight | 0.058 kilogram |
| Certifications | IEC/EN 60947 |
| Product Tradename | LS |
| Product Type | Position switch |
| Product Sub Type | None |
| Catalog Notes | Accessories for the Cage-Clamp terminals from Wago:power comb, gray, Wago Article No. 264-402<br>Cage-Clamp is a registered trademark of Wago Kontakttechnik, 32432 Minden, Germany |
| | |
| Electric connection type | Connector M12 |
| Enclosure color | Yellow Cover |
| Enclosure material | Plastic<br>Insulated material |
| Features | Expandable<br>Forced opening |
| Switch function type | Slow-action switch |
| | |
| Accessories | M12 connector included. |
| Connection type | Cage Clamp |
| Degree of protection | IP66<br>NEMA Other |
| Lifespan | 8,000,000 mechanical Operations |
| Operating frequency | 6000 Operations/h |
| Overvoltage category | III |
| Pollution degree | 3 |
| Product category | Rounded plunger |
| Rated impulse withstand voltage (Uimp) | 2500 V AC |
| Repetition accuracy | 0.15 mm (Contacts/switching capacity) |
| Type | Position switch |
| | |
| Mounting position | As required |
| Shock resistance | 25 g, Standard-action contact, Mechanical, Half-sinusoidal shock 20 ms |
| Temperature resistance | 100 °C, Contact temperature of roller head |
| | |
| Ambient operating temperature - min | -25 °C |
| 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 |
| | |
| Terminal capacity (flexible with ferrule) | 1 x (0.5 - 1.5) $mm^2$ |
| Terminal capacity (solid) | 1 x (0.5 - 2.5) $mm^2$ |

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|---|---|
| Rated conditional short-circuit current (Iq) | 1 kA |
| Rated insulation voltage (Ui) | 250 V |
| Rated operational current (Ie) at AC-15, 115 V | 4 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 |
| Rated operational current (Ie) at DC-13, 110 V | 0.8 A |
| Rated operational current (Ie) at DC-13, 125 V | 0.6 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 |
| Short-circuit protection rating | Max. 4 A gG/gL, Fuse, Contacts |
| Supply frequency | Max. 400 Hz, Contacts |
| | |
| Actuating torque of rotary drives | 0.2 N·m |
| Actuator type | Plunger |
| Operating speed | For angle of actuation α = 0°/30°<br>Max. 1/0.5 m/s (with DIN cam, mechanical actuation) |
| | |
| Control circuit reliability | 1 failure per 10,000,000 switching operations (Statistically determined, at 24 V DC/5 mA)<br>1 failure per 5,000,000 switching operations (statistically determined, at 5 V DC/1 mA) |
| Number of contacts (change-over contacts) | 0 |
| Number of contacts (normally closed contacts) | 0 |
| Number of contacts (normally open contacts) | 2 |
| | |
| Explosion safety category for gas | None |
| Explosion safety category for dust | None |
| | |
| Equipment heat dissipation, current-dependent Pvid | 0 W |
| Heat dissipation capacity Pdiss | 0 W |
| Heat dissipation per pole, current-dependent Pvid | 0.17 W |
| Rated operational current for specified heat dissipation (In) | 6 A |
| Static heat dissipation, non-current-dependent Pvs | 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. |
| 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 8.0

Sensors (EG000026) / End switch (EC000030)

Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Safety-related position switch / Safety position switch (Type 1) (ecl@ss10.0.1-27-27-26-01 [AKE640013])

| | | | |
|---|---|---|---|
| Width sensor | | mm | 31 |
| Diameter sensor | | mm | 0 |
| Height of sensor | | mm | 86 |
| Length of sensor | | mm | 33.5 |
| Rated operation current Ie at AC-15, 24 V | | A | 6 |
| Rated operation current Ie at AC-15, 125 V | | A | 6 |
| Rated operation current Ie at AC-15, 230 V | | A | 6 |
| Rated operation current Ie at DC-13, 24 V | | A | 3 |
| Rated operation current Ie at DC-13, 125 V | | A | 0.6 |
| Rated operation current Ie 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 | | | 0 |
| Number of contacts as normally closed contact | | | 0 |
| Number of contacts as normally open contact | | | 2 |
| 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 | | | Plunger |
| Alignment of the control element | | | Roller cam straight |
| Type of electric connection | | | Connector M12 |
| With status indication | | | No |
| Suitable for safety functions | | | No |
| Explosion safety category for gas | | | None |
| Explosion safety category for dust | | | None |
| Ambient temperature during operating | | °C | -25 - 70 |
| Degree of protection (IP) | | | IP66 |
| Degree of protection (NEMA) | | | Other |


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