

Specifications



Eaton 100051

Eaton Moeller® series LSM Position switch, Rounded plunger, Basic device, expandable, 2 N/O, Cage Clamp, Yellow, Metal, -25 - +70 °C, version A

General specifications

PRODUCT NAME	Eaton Moeller® series LSM Position switch
CATALOG NUMBER	100051
MODEL CODE	LSM-20A
EAN	4015081000418
PRODUCT LENGTH/DEPTH	33.5 mm
PRODUCT HEIGHT	76.5 mm
PRODUCT WIDTH	31 mm
PRODUCT WEIGHT	0.147 kg
CERTIFICATIONS	CSA File No.: 012528 UL CSA-C22.2 No. 14 CSA Class No.: 3211-03 UL 508 IEC/EN 60947 CE CSA UL Category Control No.: NKCR IEC/EN 60947-5 UL File No.: E29184
CATALOG NOTES	Using the product in areas exposed to ozone and UV radiation or in sub-zero temperatures in unprotected outdoor environments (e.g. altitudes above 1,000 m, unprotected sunlight) may reduce the degree of protection. The customer / user must validate the overall application accordingly. If applicable, the use of the LS-...-CC (Cold Climate) variants should be considered.



Powering Business Worldwide

Actuator

ACTUATING FORCE AT BEGINNING/END OF STROKE	1.0 N/8.0 N
---	-------------

ACTUATING TORQUE OF ROTARY DRIVES	0.2 Nm
--	--------

ACTUATOR TYPE	Plunger
----------------------	---------

OPERATING SPEED	For angle of actuation $\alpha = 0^\circ/30^\circ$ Max. 1/0.5 m/s (with DIN cam, mechanical actuation)
------------------------	---

Climatic environmental conditions

AMBIENT OPERATING TEMPERATURE - MAX	70 °C
--	-------

AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
--	--------

CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
--------------------------	--

Ambient conditions, mechanical

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
-------------------------------	--

Contacts

CONTROL CIRCUIT RELIABILITY	1 failure per 5,000,000 switching operations (statistically determined, at 5 V DC/1 mA) 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)	0
--	---

NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	2
--	---

Design verification

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.
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	Does not apply, since the

Electrical rating

RATED INSULATION VOLTAGE (UI)	400 V
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	0.6 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
SHORT-CIRCUIT PROTECTION RATING	Max. 6 A gG/gL, Fuse, Contacts
SUPPLY FREQUENCY	Max. 400 Hz, Contacts
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	1 kA

AGAINST ELECTRIC SHOCK	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.
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

Features & functions	
ELECTRIC CONNECTION TYPE	Cable entry metrical
ENCLOSURE COLOR	Yellow Cover
ENCLOSURE MATERIAL	Metal
FEATURES	Expandable
SWITCH FUNCTION TYPE	Slow-action switch

General information	
CONNECTION TYPE	Cage Clamp
DEGREE OF PROTECTION	IP66/IP67 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)	4000 V AC
REPETITION ACCURACY	0.15 mm (Contacts/switching)

Safety

EXPLOSION SAFETY CATEGORY FOR DUST	None
---------------------------------------	------

EXPLOSION SAFETY CATEGORY FOR GAS	None
--------------------------------------	------

Resources

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

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

CONTROL TRAVEL DIAGRAM	eaton-position-switches- diagram-ls-contact-travel- diagram-005.eps
---------------------------	---

DECLARATIONS OF CONFORMITY	eaton-position-switch- declaration-of-conformity- eu251556en.pdf
-------------------------------	--

DRAWINGS	eaton-position-switches- plunger-ls-dimensions- 004.eps
	eaton-position-switches- plunger-ls-dimensions- 002.eps
	eaton-operating-button- symbol-008.eps
	eaton-position-switches- plunger-ls-3d-drawing.eps

ECAD MODEL	ETN.100051.edz
------------	--------------------------------

INSTALLATION INSTRUCTIONS	IL053001ZU
------------------------------	----------------------------

	DA-CS-lsm
MCAD MODEL	eaton-mechanical-limit- switches-mcad-drawings- lsm.dwg

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

WIRING DIAGRAMS	eaton-position-switches- contact-ls-wiring-diagram- 002.eps
-----------------	---

capacity)

TYPE	Position switch
------	-----------------

Terminal capacities

TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.5 - 1.5) mm ²
---	---------------------------------

TERMINAL CAPACITY (SOLID)	1 x (0.5 - 2.5) mm ²
------------------------------	---------------------------------

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



Eaton Corporation plc Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

© 2026 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.

