



Safety position switch, LS(M)-..., Rounded plunger, Basic device, expandable, 2 N/O, Yellow, Metal, Cage Clamp, -25 - +70 °C

Part no. LSM-20
266155
EL Number 4356156
(Norway)

General specifications		
Product name		Eaton Moeller® series LSM Safety position switch
Part no.		LSM-20
EAN		4015082661557
Product Length/Depth		33.5 millimetre
Product height		76.5 millimetre
Product width		31 millimetre
Product weight		0.147 kilogram
Certifications		CE IEC/EN 60947-5 CSA-C22.2 No. 14 CSA Class No.: 3211-03 UL Category Control No.: NKCR UL 508 CSA File No.: 012528 CSA UL UL File No.: E29184 IEC/EN 60947
Product Tradename		LSM
Product Type		Safety position switch
Product Sub Type		None
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		NEMA Other IP66/IP67
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 capacity)
Type		Position switch
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
Climatic environmental conditions		
Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		70 °C
Climatic proofing		Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
Terminal capacities		
Terminal capacity (flexible with ferrule)		1 x (0.5 - 1.5) mm²

Terminal capacity (solid)			1 x (0.5 - 2.5) mm ²
Electrical rating			
Rated conditional short-circuit current (I _q)			1 kA
Rated insulation voltage (U _i)			400 V
Rated operational current (I _e) at AC-15, 220 V, 230 V, 240 V			6 A
Rated operational current (I _e) at AC-15, 24 V			6 A
Rated operational current (I _e) at AC-15, 380 V, 400 V, 415 V			4 A
Rated operational current (I _e) at DC-13, 110 V			0.6 A
Rated operational current (I _e) at DC-13, 125 V			0.8 A
Rated operational current (I _e) at DC-13, 220 V, 230 V			0.3 A
Rated operational current (I _e) at DC-13, 24 V			3 A
Short-circuit protection rating			Max. 6 A gG/gL, Fuse, Contacts
Supply frequency			Max. 400 Hz, Contacts
Actuator			
Actuating force at beginning/end of stroke			1.0 N/8.0 N
Actuating torque of rotary drives			0.2 N-m
Actuator type			Plunger
Operating speed			Max. 1/0.5 m/s (with DIN cam, mechanical actuation) For angle of actuation α = 0°/30°
Contacts			
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)
Number of contacts (change-over contacts)			0
Number of contacts (normally closed contacts)			0
Number of contacts (normally open contacts)			2
Safety			
Explosion safety category for gas			None
Explosion safety category for dust			None
Design verification			
Equipment heat dissipation, current-dependent P _{vid}			0 W
Heat dissipation capacity P _{diss}			0 W
Heat dissipation per pole, current-dependent P _{vid}			0.17 W
Rated operational current for specified heat dissipation (I _n)			6 A
Static heat dissipation, non-current-dependent P _{vs}			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 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) (ecI@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 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		0.8
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			No
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
Housing material			Metal
Coating housing			Other
Type of control element			Plunger
Alignment of the control element			Roller cam straight
Type of electric connection			Cable entry metrical
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/IP67
Degree of protection (NEMA)			Other