DATASHEET - LS-S11S/L

Position switch, Roller lever, Complete unit, 1 N/O, 1 NC, Snap-action contact - Yes, Screw terminal, Yellow, Insulated material, -25 - +70 °C, EN 50047 Form E, Long

Part no.	**LS-S11S/L**
	106800
EL Number (Norway)	**4315213**

General specifications

Product name	Eaton Moeller® series LS Position switch
Part no.	LS-S11S/L
EAN	4015081065677
Product Length/Depth	33.5 millimetre
Product height	96 millimetre
Product width	31 millimetre
Product weight	0.051 kilogram
Certifications	UL CSA CSA File No.: 012528 UL 508 IEC/EN 60947-5 IEC/EN 60947 UL Category Control No.: NKCR CSA-C22.2 No. 14 CE CSA Class No.: 3211-03 UL File No.: E29184
Product Tradename	LS
Product Type	Position switch
Product Sub Type	None

Features & Functions

Design	EN 50047 Form E
Electric connection type	Cable entry metrical
Enclosure color	Yellow Cover
Enclosure material	Plastic Insulated material
Features	Forced opening Snap-action contact Positive opening
Switch function type	Quick-break switch

General information

Connection type	Screw terminal
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	Roller lever
Rated impulse withstand voltage (Uimp)	4000 V AC
Repetition accuracy	0.15 mm (Contacts/switching capacity)
Suitable for	Safety functions
Type	Safety position switch 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
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) mm^2
Terminal capacity (solid)	1 x (0.5 - 2.5) mm^2
Electrical rating	
Rated conditional short-circuit current (Iq)	1 kA
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
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	Roller lever
Operating speed	Max. 1 m/s (with DIN cam, mechanical actuation) For angle of actuation α = 30°/45°
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)	1
Number of contacts (normally open contacts)	1
Safety	
Explosion safety category for gas	None
Explosion safety category for dust	None
Design verification	
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 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 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			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
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