Position switch, Rounded plunger, Basic device, expandable, 1 N/O, 1 NC, Screw terminal, Black, Insulated material, -25 - +70 °C, EN 50047 Form B



Part no. LS-S11S-SW 106806

General specifications	
Product name	Eaton Moeller® series LS Position switch
Part no.	LS-S11S-SW
EAN	4015081065738
Product Length/Depth	33.5 millimetre
Product height	76.5 millimetre
Product width	31 millimetre
Product weight	0.051 kilogram
Certifications	CSA-C22.2 No. 14 UL CSA File No.: 012528 UL File No.: E29184 IEC/EN 60947 CE IEC/EN 60947-5 UL Category Control No.: NKCR CSA Class No.: 3211-03 UL 508 CSA
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
Features & Functions	
Design	EN 50047 Form B
Electric connection type	Cable entry metrical
Enclosure color	Black (Cover)
Enclosure material	Insulated material Plastic
Features	Expandable Forced opening Positive opening Snap-action contact
Switch function type	Quick-break switch
General information	
Connection type	Screw terminal
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 capacity)
Suitable for	Safety functions
Туре	Safety 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 Climatic proofing	70 °C Damp heat, constant, to IEC 60068-2-78
omitate proofing	Damp heat, cyclic, to IEC 60068-2-30
erminal 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	Plunger
	·
Operating speed	Max. 1/0.5 m/s (with DIN cam, mechanical actuation) For angle of actuation $\alpha=0^{\circ}/30^{\circ}$
Contacts	
Control circuit reliability	1 failure per 10,000,000 switching operations (Statistically determined, at 24 V DI
	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)	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. Mosts the product standard's requirements.
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.

10.9.3 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])

Type of interface Type of interface for safety communication Construction type housing Housing material Coating housing Type of control element Alignment of the control element None Cuboid Plastic Cuboid Plastic Plastic Plastic Coating housing Cuboing Roller cam straight	SWITCH (Type 1) (eci@SS13-21-21-20-01 [AKE040018])		
Helpit of sensor mm 31 Length of sensor mm 33.5 Rated operation current le at AC-15, 125 V A 6 Rated operation current le at AC-15, 125 V A 6 Rated operation current le at DC-13, 24 V A 3 Rated operation current le at DC-13, 25 V A 0 Rated operation current le at DC-13, 25 V A 0 Rated operation current le at DC-13, 25 V A 0 Rated operation current le at DC-13, 25 V A 0 Rated operation current le at DC-13, 25 V A 0 Rated operation current le at DC-13, 25 V A 0 Switching function 0 0 0 Switching function latching No No Output electronic No No Forced opening V 1 1 Number of contacts as normally closed contact V 1 1 Number of contacts as change-over contact V 1 1 Vippe of interface V 1 1 <t< td=""><td>Width sensor</td><td>mm</td><td>31</td></t<>	Width sensor	mm	31
Langth of sensor nm 33.5 Rated operation current le at AC-15, 24 V A 6 Rated operation current le at AC-15, 25 V A 6 Rated operation current le at AC-15, 24 V A 3 Rated operation current le at DC-13, 24 V A 3 Rated operation current le at DC-13, 25 V A 0.3 Rated operation current le at DC-13, 20 V A 0.3 Switching function function Monocomment in a DC-13, 20 V A 0.3 Switching function latching Monocomment in a DC-13, 20 V No No Switching function latching No No No Upture elevronic Yes No No Forced opening Yes 1 No Number of contacts as normally closed contact Yes 1 No Number of contacts as normally open contact Yes No No Number of contacts as normally open contact Yes No No Yes of interface for safety communication Yes No No Coating housing<	Diameter sensor	mm	0
Rated operation current le at AC-15, 24 V A 6 Rated operation current le at AC-15, 125 V A 6 Rated operation current le at DC-13, 24 V A 3 Rated operation current le at DC-13, 24 V A 0.3 Rated operation current le at DC-13, 230 V A 0.3 Rated operation current le at DC-13, 230 V A 0.3 Switching function latching Image: Company of the Compan	Height of sensor	mm	61
Rated operation current le at AC-15, 125 V A 6 Rated operation current le at DC-13, 24 V A 3 Rated operation current le at DC-13, 125 V A 0 Rated operation current le at DC-13, 125 V A 0 Rated operation current le at DC-13, 125 V A 0 Switching function DC-13, 230 V A 0 Switching function DC-14, 250 V DC-14, 250 V 0 Number of contacts as change. DC-14, 250 V DC-14, 250 V 0 Number of contacts as change-over contact DC-14, 250 V DC-14, 250 V 0 Switerface for safety communication DC-14, 250 V DC-14, 250 V DC-14, 250 V Louis Interface for safety communication DC-14, 250 V DC-14, 250 V <td>Length of sensor</td> <td>mm</td> <td>33.5</td>	Length of sensor	mm	33.5
Rated operation current le at AC-15, 230 V A 3 Rated operation current le at DC-13, 24 V A 0.8 Rated operation current le at DC-13, 125 V A 0.3 Rated operation current le at DC-13, 230 V A 0.3 Switching function latching Inche-beak switch Output electronic No No Forced opening No No Number of safety auxiliary contacts Inche-beak switch Number of contacts as normally closed contact Inche-beak switch Number of contacts as normally open contact Inche-beak switch Number of contacts as normally open contact Inche-beak switch Number of contacts as normally open contact Inche-beak switch Number of contacts as change-over contact Inche-beak switch Number of contacts as change-over contact Inche-beak switch None None Construction type douting atterial Inche-beak switch Coating housing Inche-beak switch Coating housing Inche-beak switch Coating housing Inche-beak switch Coating housing Inche-be	Rated operation current le at AC-15, 24 V	Α	6
Rated operation current le at DC-13, 24V A 3 Rated operation current le at DC-13, 125 V A 0.8 Rated operation current le at DC-13, 230 V A 0.3 Switching function Coulcit-break switch Switching function latching No No Output electronic Po No Forced opening Yes No Number of safety auxiliary contacts 1 1 Number of contacts as normally open contact Yes 1 Number of contacts as shange-over contact Yes None Type of interface for safety communication Yes None Construction type housing Yes Outbid Housing material Yes District Coating housing Yes Plunger Coating housing Yes Plunger Alignment of the control element Yes Roller cam straight Type of electric connection Yes Roller cam straight With status indication Yes Roller cam straight Suitable for safety functions <t< td=""><td>Rated operation current le at AC-15, 125 V</td><td>Α</td><td>6</td></t<>	Rated operation current le at AC-15, 125 V	Α	6
Rated operation current le at DC-13, 125 V A 0.8 Rated operation current le at DC-13, 230 V A 0.3 Switching function Cuick-break switch Switching function latching No Output electronic No No Forced opening Yes Yes Number of safety auxiliary contacts 1 1 Number of contacts as normally closed contact Yes 1 Number of contacts as normally open contact Yes 1 Number of contacts as normally open contact Yes 1 Number of contacts as change-over contact Yes 1 Type of interface Yes None Type of interface for safety communication Yes None Construction type housing Yes Plastic Cotaing housing Yes Plunger Cotaing housing Yes Roller can straight Yeps of cottrol element Yes Roller can straight Yeps of cottrol element Yes Cable entry metrical With status indication Yes	Rated operation current le at AC-15, 230 V	Α	6
Rated operation current le at DC-13,230 V Switching function Switching function latching Output electronic Forced opening Number of safety auxiliary contacts Number of contacts as normally closed contact Number of contacts as change-over contact Type of interface Type of interface for safety communication Construction type housing Housing material Coating housing Type of control element Nigment of the control element Nigment of the control element With status indication With status indication Suitable for safety functions Explosion safety category for dust Annient temperature during operating To a Coating Auxiliary Control element None None Rate operation and the control element None None Suitable for safety functions Explosion safety category for dust Annient temperature during operating To a Coating Auxiliary Control element None None None None None None None None	Rated operation current le at DC-13, 24 V	Α	3
Switching function 6 4 0uick-break switch Switching function latching No No Output electronic Pes Yes Forced opening 1 1 Number of safety auxiliary contacts 1 1 Number of contacts as normally closed contact 1 1 Number of contacts as change-over contact 1 1 Number of tractacts as change-over contact 1 None Type of interface None None Construction type housing None None Construction type housing 1 Plastic Veg of control element 1 Plunger Alignment of the control element 1 Plunger Alignment of the control element 2 Roller cam straight Type of electric connection 2 None With status indication 4 Plunger Suitable for safety functions 5 None Suitable for safety functions 4 None Explosion safety category for gas 5	Rated operation current le at DC-13, 125 V	Α	0.8
Switching function latching No Output electronic No Forced opening Yes Number of safety auxiliary contacts I Number of contacts as normally closed contact I Number of contacts as normally open contact I Number of contacts as change-over contact I Type of interface None Type of interface for safety communication I Construction type housing I Housing material Uboid Type of control element I Alignment of the control element I Alignment of the control element I Type of electric connection I With status indication I Suitable for safety functions I Explosion safety category for gas I Explosion safety category for dust I Aligherty metrical I Suitable for safety functions I Explosion safety category for gas I Explosion safety category for dust I Aligherty metr	Rated operation current le at DC-13, 230 V	Α	0.3
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 1 Type of interface None Type of interface for safety communication None Construction type housing 1 Housing material 1 Coating housing 1 Type of control element 1 Alignment of the control element 1 Type of electric connection 2 With status indication 2 Suitable for safety functions 4 Explosion safety category for gas None Explosion safety category for dust 5 Alignment during operating 4 Pose 1 Suitable for safety functions 5 Explosion safety category for gas 6 Explosion safety category for dust 7 Alignment during operating 6 For a	Switching function		Quick-break switch
Forced opening Number of safety auxiliary contacts Number of contacts as normally closed contact Number of contacts as normally open contact Number of contacts as change-over contact Number of contacts as change-over contact Type of interface Type of interface for safety communication Construction type housing Housing material Coating housing Type of control element Type of control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Abient temperature during operating Yes Yes Yes None Yes Yes None None None None Yes None	Switching function latching		No
Number of safety auxiliary contacts Number of contacts as normally closed contact Number of contacts as normally open contact Number of contacts as normally open contact Number of contacts as change-over contact Number of contacts as change-over contact Number of contacts as change-over contact Type of interface Type of interface for safety communication Construction type housing Housing material Coating housing Type of control element Type of control element Type of eletric connection With status indication Suitable for safety category for gas Explosion safety category for dust Animent temperature during operating **Coating housing **Plunger **Plunger **Roller can straight **Coating entry metrical **None **Positions afety category for gas **Explosion safety category for dust **None **Explosion safety category for dust **Animent temperature during operating **Coating housing **Coating housing **Total Coating housing **In Coating housing *	Output electronic		No
Number of contacts as normally closed contact Number of contacts as normally open contact Number of contacts as change-over contact Number of contacts as change-over contact Type of interface Type of interface for safety communication Construction type housing Housing material Coating housing Type of control element Type of control element Alignment of the control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Annient temperature during operating Type of electric contacts as normally open contact Type of control element Type of electric connection Type of electric connectio	Forced opening		Yes
Number of contacts as normally open contact Number of contacts as change-over contact Number of contacts as change-over contact Type of interface Type of interface for safety communication Construction type housing Housing material Coating housing Type of control element Alignment of the control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating 1 None None 1	Number of safety auxiliary contacts		1
Number of contacts as change-over contact Type of interface Type of interface for safety communication Construction type housing Housing material Coating housing Type of control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for dust Ambient temperature during operating None One Construction type housing Cuboid Cubo	Number of contacts as normally closed contact		1
Type of interface For safety communication Construction type housing Coating Coating Housing Coating Housing Coating C	Number of contacts as normally open contact		1
Type of interface for safety communication Construction type housing Housing material Coating housing Type of control element Alignment of the control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Ambient temperature during operating None None Cuboid Cuboid Cuboid Plastic Other Plunger Roller cam straight Cable entry metrical No Yes None None Suitable for safety functions Explosion safety category for dust Ambient temperature during operating None	Number of contacts as change-over contact		0
Construction type housing Housing material Coating housing Coa	Type of interface		None
Housing material Coating housing Type of control element Alignment of the control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating	Type of interface for safety communication		None
Coating housing Type of control element Alignment of the control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating Other Other Plunger Roller cam straight Cable entry metrical No Cable entry metrical No Yes None None None 25 - 70	Construction type housing		Cuboid
Type of control element Alignment of the control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating Plunger Roller cam straight Cable entry metrical No Cable entry metrical No	Housing material		Plastic
Alignment of the control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating Roller cam straight Cable entry metrical No	Coating housing		Other
Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating Cable entry metrical No No No Yes None None 25 - 70	Type of control element		Plunger
With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating No No No No No No No No No N	Alignment of the control element		Roller cam straight
Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating Yes None None 25 - 70	Type of electric connection		Cable entry metrical
Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating None **C** **C** **C** **O** **C** ** **C** **	With status indication		No
Explosion safety category for dust Ambient temperature during operating C -25 - 70	Suitable for safety functions		Yes
Ambient temperature during operating °C -25 - 70	Explosion safety category for gas		None
	Explosion safety category for dust		None
Degree of protection (IP) IP66/IP67	Ambient temperature during operating	°C	-25 - 70
	Degree of protection (IP)		IP66/IP67
Degree of protection (NEMA) Other	Degree of protection (NEMA)		Other