DATASHEET - LS-S11-230AFT-ZBZ/X

Position switch, 1N/O+1N/C, basic, spring-powered interlock

Part no. LS-S11-230AFT-ZBZ/X
106827

EL Number (Norway) 4356174

Product name	Eaton Moeller® series LS Position switch
Part no.	LS-S11-230AFT-ZBZ/X
EAN	4015081065875
Product Length/Depth	55 millimetre
Product height	170 millimetre
Product width	37 millimetre
Product weight	0.417 kilogram
Certifications	CSA-C22.2 No. 14 UL Category Control No.: NKCR CE IEC/EN 60947 CSA Class No.: 3211-03 CSA UL File No.: E29184 CSA File No.: 012528 UL 508 UL IEC/EN 60947-5
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 For degree of protection IP65, use V-M20 (206910) cable glands with connecting thread of max. 9 mm length. In the event of power failure (e.g., during commissioning), the device can be released with a screwdriver. The auxiliary release mechanism must be sealed! → Instructional leaflet IL 05208005Z Monitoring of door position: continuous The operating head can be rotated manually in 90° steps without tools to suit the specified level of actuation. With the actuator inserted, the N/O contact is open and the N/C contact is closed.
Electric connection type	Cable entry metrical
Enclosure material	Insulated material Plastic
Features	Forced opening Expandable
Fitted with:	Auxiliary release mechanism Interlock monitoring
Switch function type	Slow-action switch
Connection type	Screw terminal
Degree of protection	IP65 NEMA Other
Duty factor	100 % (Magnet)
Lifespan	1,000,000 mechanical Operations
Operating frequency	800 Operations/h
Overvoltage category	III
Pollution degree	3
Product category	Basic units with spring-powered interlock (closed-circuit principle)
Rated impulse withstand voltage (Uimp)	4000 V AC
Repetition accuracy	0.02 mm (Contacts/switching capacity)
Suitable for	Safety functions
Type	Position switch Safety position switch
Mounting position	As required

Shock resistance	10 g, Standard-action contact, Mechanical, Half-Sinusoidal shock 20 ms
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	70 °C
Climatic proofing	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Terminal capacity (flexible with ferrule)	2 x (0.5 - 1.5) mm^2 1 x (0.5 - 1.5) mm^2
Terminal capacity (solid)	1 x (0.75 - 2.5) mm^2 2 x (0.75 - 1.5) mm^2
Screw size	PH1, Terminal screw
Tightening torque	0.9 Nm, Screw terminals
Power consumption	11 VA at 230 V AC (electromechanical actuation) 8 VA at 120 V AC (electromechanical actuation) 8 W at 24 V DC (electromechanical actuation)
Rated conditional short-circuit current (Iq)	1 kA
Rated control supply voltage	230 V 50/60 Hz (Us, for magnet drive)
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	0.8 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
Voltage tolerance	0.85 x Us, Pick-up and drop-out values 1.1 x Us, Pick-up and drop-out values
Actuating force at beginning/end of stroke	25 N/15 N (plug-in/pull-out)
Actuator type	None
Mechanical holding force	1600 N (according to GS-ET-19 (04/2004), XWA, XFG, XF) 1200 N (according to GS-ET-19 (04/2004), XNW) 1700 N (according to GS-ET-19 (04/2004), XG, XW, XNG)
Number of contacts (change-over contacts)	0
Number of contacts (normally closed contacts)	1
Number of contacts (normally open contacts)	1
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	0.13 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	60
Diameter sensor		mm	0
Height of sensor		mm	173
Length of sensor		mm	39
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			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
Material housing			Plastic
Coating housing			Other
Type of control element			None
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)			IP65
Degree of protection (NEMA)			Other