DATASHEET - LS-11S-ZB



Safety position switch, 1N/O+1N/C, insulated material, +actuator ZB, spring clamp connection

Powering Business Worldwide

LS-11S-ZB Part no. Catalog No. 106870 Eaton Catalog No. LS-11S-ZB **EL-Nummer** 0004356198 (Norway)

	Position switches Safety position switches
	LS(4)ZB
	Safety position switches
	IP66
	Complete unit
°C	-25 - +70
	Yes
	With the actuator inserted, the N/O contact is open and the NC contact is closed.
	Sicherheit geprüft tested safety
	1 N/O
	1 NC →
	e safety function, by positive opening to IEC/EN 60947-5-1
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	Insulated material
	Cage Clamp
	Cage-Clamp is a registered trademark of Wago Kontakttechnik, 32432 Minden, Germany. Accessories for the Cage-Clamp terminals from Wago:power comb, gray, Wago Article No. 264-402
	°C

Notes Switch must never be used as a mechanical stop!

Actuator can be repositioned for horizontal or vertical mounting.

The operating heads can be turned manually in 90° steps to suit the specified level of actuation.

With the actuator inserted, the N/O contact is open and the N/C contact is closed.

For degree of protection IP65, use V-M20 (206910) cable glands with connecting thread of max. 9 mm length.

Technical data

General

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Standards		IEC/EN 60947
Climatic proofing		Damp heat, constant, to IEC 60068-2-78; damp heat, cyclical, to IEC 60068-2-30
Ambient temperature	°C	-25 - +70
Mounting position		As required
Degree of Protection		IP66

Terminal capacities		mm ²	
Solid		mm ²	1 x (0.5 - 1.5) 2 x (0.5 - 1.5)
Flexible with ferrule		mm ²	1 x (0.5 - 1.5) 2 x (0.5 - 1.5)
Terminal screw			PH1
Tightening torque for terminal screw		Nm	0.4
Contacts/switching capacity			
Rated impulse withstand voltage	U_{imp}	V AC	4000
Rated insulation voltage	Ui	V	400
Overvoltage category/pollution degree			III/3
Rated operational current	le	Α	
AC-15			
24 V	I _e	Α	6
220 V 230 V 240 V	Ie	Α	6
380 V 400 V 415 V	Ie	Α	4
DC-13			
24 V	Ie	Α	3
110 V	le	Α	0.6
220 V	Ie	Α	0.3
Supply frequency		Hz	max. 400
Short-circuit rating to IEC/EN 60947-5-1			
max. fuse		A gG/gL	6
Repetition accuracy		mm	0.15
Rated conditional short-circuit current		kA	1
Mechanical variables			
Lifespan, mechanical	Operations	x 10 ⁶	1.5
Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Standard-action contact		g	25
Operating frequency	Operations/h		≦ 1800
Actuation			
Mechanical			
Actuating force at beginning/end of stroke		N	10/5 (plug-in/pull-out)

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	6
Heat dissipation per pole, current-dependent	P_{vid}	W	0.17
Equipment heat dissipation, current-dependent	P_{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
EC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties	
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 (II) is observed

Technical data ETIM 7.0

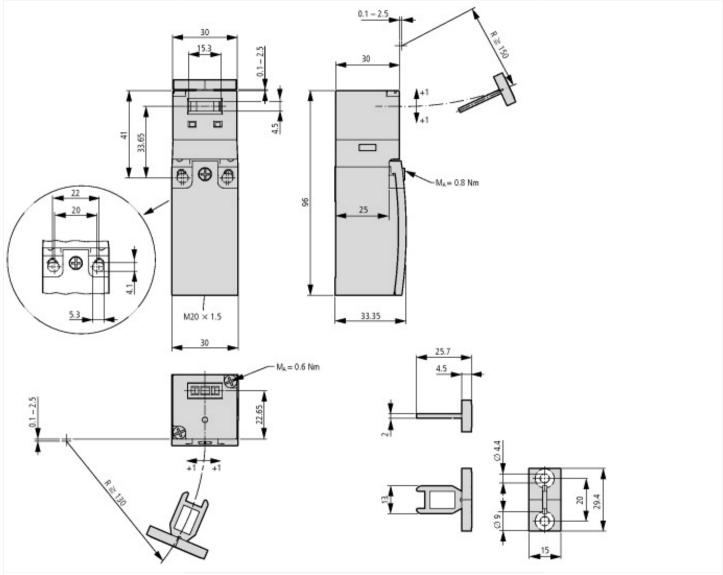
Technical data ETIM 7.0			
Sensors (EG000026) / End switch (EC000030)			
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Position switch / Position switch (Type 1) (ecl@ss10.0.1-27-27-06-01 [AGZ382015])			
Width sensor		mm	30
Diameter sensor		mm	0
Height of sensor		mm	96
Length of sensor		mm	33.35
Rated operation current le at AC-15, 24 V		Α	10
Rated operation current le at AC-15, 125 V		Α	6
Rated operation current le at AC-15, 230 V		Α	6
Rated operation current le at DC-13, 24 V		Α	3
Rated operation current le at DC-13, 125 V		Α	0.8
Rated operation current le at DC-13, 230 V		Α	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
Material housing			Plastic
Coating housing			Other
Type of control element			Other
Alignment of the control element			Other
Type of electric connection			Other
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)			13

Approvals

Product Standards	IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14; CE marking
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UL File No.	E29184
UL Category Control No.	NKCR
CSA File No.	12528
CSA Class No.	3211-03
North America Certification	UL listed, CSA certified
Degree of Protection	IEC: IP65, UL/CSA Type 3R, 4X (indoor use only), 12, 13

Dimensions



Switch must not be used as a mechanical stop Terminal marking according to EN 50 013 Travel [mm] = Contact closed = Contact open Zw = Positive opening sequence

Additional product information (links)

IL05208003Z (AWA1310-2374) Safety position switch

IL05208003Z (AWA1310-2374) Safety position switch

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05208003Z2018_06.pdf