### **DATASHEET - LS4/S11-1/I/ZB**



Safety position switch, narrow, 1N/O+1N/C, insulated material, + actuator ZB



Powering Business Worldwide

Part no. LS4/S11-1/I/ZB

Catalog No. 106857

Eaton Catalog No. LS4/S11-1/I/ZB EL-Nummer 4356201

(Norway)

#### **Delivery program**

Delivery program		
Basic function	Position switches Safety position switches	
Part group reference	LS(4)ZB	
Product range	Safety position switches	
Degree of Protection	IP65	
Features	Complete unit	
Ambient temperature	°C -25 - +70	
Description	With the actuator inserted, the N/O contact is open and the NC contact is closed.	
Approval	ET 17039 Sicherheit geprüft tested safety	
Contacts		
N/O = Normally open	1 N/O	
N/C = Normally closed	1 NC →	
Notes	= safety function, by positive opening to IEC/EN 60947-5-1	
Contact sequence	$ \begin{array}{c c} \uparrow \downarrow^{13} \downarrow^{21} \\ \uparrow \downarrow^{14} \downarrow^{22} \end{array} $	
Contact travel = Contact closed = Contact open	13-14 21-22 0 2.65 3.55 6.0 Zw = 3.9 mm	
Housing	Insulated material	
Connection type	Screw terminal Screw terminal	
<b>Notes</b> Do not, under any circumstance, use the switch as a mechanical stop or transportation restraint or brace! Connect operating elements permanently with the protective device, e.g., with non-reusable screws or rivets. Operating head can be rotated 90°.		

## **Technical data**

### General

General		
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		IP65
Terminal capacities	$\text{mm}^2$	
Solid	mm <sup>2</sup>	1 x (0.75 - 2.5) 2 x (0.75 - 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	0.9
Contacts/switching capacity		HIII	0.0
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	6000
Rated insulation voltage	Ui	V	500
Overvoltage category/pollution degree			111/3
Rated operational current	I <sub>e</sub>	Α	
AC-15			
24 V	l <sub>e</sub>	Α	6
220 V 230 V 240 V	Ie	Α	6
380 V 400 V 415 V	l <sub>e</sub>	Α	4
DC-13			
24 V	l <sub>e</sub>	Α	3
110 V	l <sub>e</sub>	Α	0.8
220 V	l <sub>e</sub>	Α	0.3
Supply frequency		Hz	max. 400
Short-circuit rating to IEC/EN 60947-5-1			
max. fuse		A gG/gL	10
Repetition accuracy		mm	0.02
Rated conditional short-circuit current		kA	1
Mechanical variables			
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	1.5
Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Standard-action contact		g	5
Operating frequency	Operations/h		≦ 1800
Actuation			
Mechanical			
Actuating force at beginning/end of stroke		N	15/20 (plug-in/pull-out)

### **Design verification as per IEC/EN 61439**

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 <sub>vid</sub>	W	0.1
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	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 (IL) is observed.

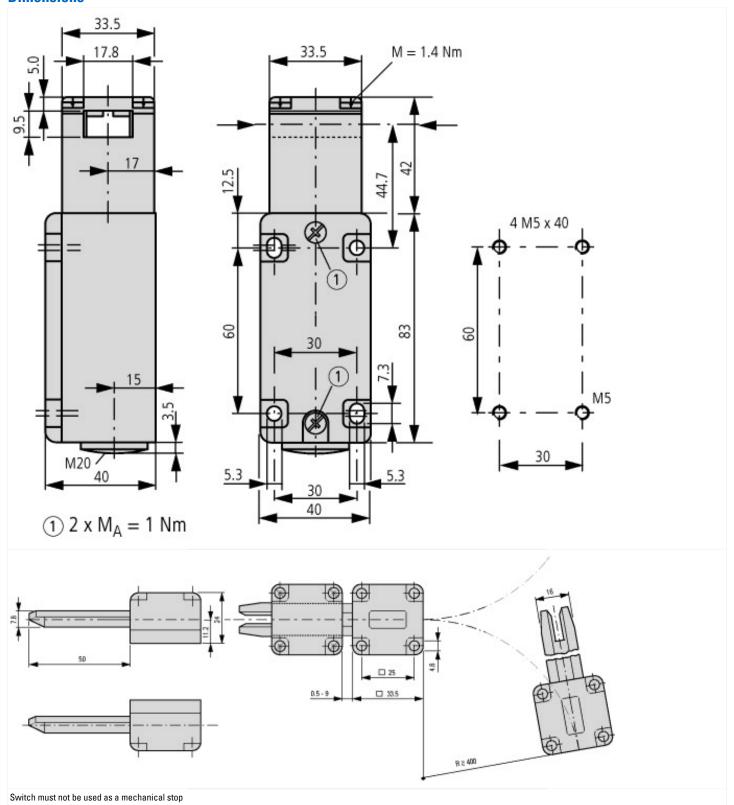
#### **Technical data ETIM 7.0**

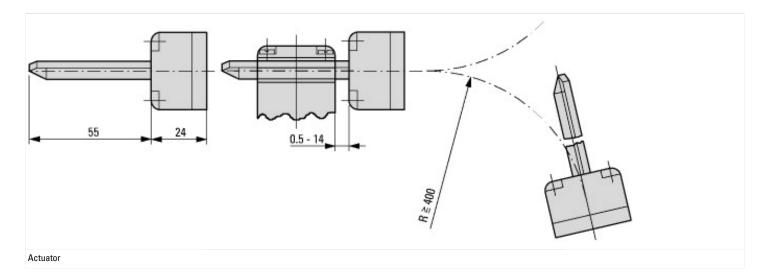
lechnical data ETIM 7.0			
Sensors (EG000026) / End switch (EC000030)			
Electric engineering, automation, process control engineering / Binary sensor techn (ecl@ss10.0.1-27-27-06-01 [AGZ382015])	nology, safety-re	elated sei	nsor technology / Position switch / Position switch (Type 1)
Width sensor	r	mm	40
Diameter sensor	r	mm	0
Height of sensor	r	mm	125
Length of sensor	r	mm	40
Rated operation current le at AC-15, 24 V	Į.	A	10
Rated operation current le at AC-15, 125 V	Į.	A	6
Rated operation current le at AC-15, 230 V	A	A	6
Rated operation current le  at DC-13, 24 V	Į.	A	3
Rated operation current le  at DC-13, 125 V	Į.	A	0.8
Rated operation current le  at DC-13, 230 V	Į.	A	0.3
Switching function			Slow-action switch
Switching function latching			No
Output electronic			No
Forced opening			Yes
Number of safety auxiliary contacts			0
Number of contacts as normally closed contact			0
Number of contacts as normally open contact			0
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			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	°C	25 - 70
Degree of protection (IP)			IP65
Degree of protection (NEMA)			13

#### **Approvals**

7.pp.oraio	
Product Standards	IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14; CE marking
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

#### **Dimensions**





## **Additional product information (links)**

IL05208004Z (AWA1310-2367) Safety position switch

IL05208004Z (AWA1310-2367) Safety position switch

ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL05208004Z2018\_09.pdf

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