

Position switch, 2 N/C, basic, magnet-powered interlock

Part no. Article no. Catalog No. LS-S02-230AMT-ZBZ/X 106822 LS-S02-230AMT-ZBZX



Delivery program

Basic function			Position switches Safety position switches
Part group reference			LSZBZ/X
Product range			Basic devices with magnet-powered interlock (open-circuit principle)
Degree of Protection			IP65
Features			Basic device, expandable
Ambient temperature		°C	-25 - +40
Description			With interlock monitoring Monitoring of door position: continuous Time control of the release operation possible using ESR5-NV3-30
Approval			R R R R R R R R R R R R R R R R R R R
Contacts			
N/C = Normally closed			2 NC 🕀
Notes			Θ = safety function, by positive opening to IEC/EN 60947-5-1
Contact sequence			$\begin{array}{c} \uparrow & \downarrow^{11} \\ P \\ \hline \\ 12 \\ \hline \\ 12 \\ \hline \\ 12 \\ \hline \\ 22 \end{array}$
Rated control voltage for magnetic drive	Us	V	230 V 50/60 Hz
Housing			Insulated material
Connection type			Screw terminal
Notes Switch must never be used as a mechanical stop!			

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.

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

Technical data 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 - +40
Mounting position		As required
Degree of Protection		IP65
Terminal capacities	mm ²	
Solid	mm ²	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)

Contacts/switching capacity

Contacts/switching capacity			
Rated impulse withstand voltage	U _{imp}	V AC	4000
Rated insulation voltage	Ui	V	400
Overvoltage category/pollution degree			111/3
Rated operational current	l _e	А	
AC-15			
24 V	l _e	А	6
220 V 230 V 240 V	l _e	A	6
380 V 400 V 415 V	l _e	A	4
DC-13			
24 V	le	A	3
110 V	l _e	A	0.8
220 V	l _e	A	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	0.02
Rated conditional short-circuit current		kA	1
Mechanical variables			
Lifespan, mechanical	Operations	x 10 ⁶	1
Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Standard-action contact		g	10
Operating frequency	Operations/h		≝ ₈₀₀
Actuation			
Mechanical			
Actuating force at beginning/end of stroke		Ν	25/15 (plug-in/pull-out)
Mechanical holding force acc. to GS-ET-19 (04/2004)			
XG, XW, XNG		N	1700
XWA, XFG, XF		Ν	1600
XF		Ν	750
XNW		Ν	1200
Electromechanical			
For magnet			
Power consumption			
at 120 V AC		VA	8
at 230 V AC		VA	11
at 24 V DC		W	8
Pick-up and drop-out values		x U _s	0.85 - 1.1
Magnet duty factor		% ED	100

Design verification as per IEC/EN 61439

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Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	6
Heat dissipation per pole, current-dependent	P _{vid}	W	0.13
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	40
IEC/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 6.0

Sensors (EG000026) / End switch (EC000030)

Electric engineering, automation, process control engineering / Binary sensor techvology, safety-related sensor technology / Position switch / Position switch (Type 1) (ecl@ss8.1-27-27-06-01 Width sensor ensor ensor

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, 230 V A 8 Rated operation current le at DC-13, 24 V A 8 Rated operation current le at DC-13, 25 V A 8 Switching function A 0 8 Switching function A 0 8 Dutput electronic A 0 8 Number of safety auxiliary contacts A 0 No Number of safety auxiliary contact Y No No Number of contacts as normally closed contact Y No No Number of safety auxiliary contacts Y No No Number of contacts as change-over contact Y No No Number of safety auxiliary contacton Y No No Number of contacts as change-over contact Y No No Number of contacts as change-over contact Y No No Noutper of interface	Height of sensor	mm	173
Rated operation current leat AC-15,125 V Image: A marged operation current leat AC-15,230 V Image: A marged operation current leat DC-13,24 V Rated operation current leat DC-13,25 V Image: A marged operation current leat DC-13,25 V Image: A marged operation current leat DC-13,25 V Switching function Image: A marged operation current leat DC-13,25 V Image: A marged operation current leat DC-13,25 V Switching function Image: A marged operation current leat DC-13,25 V Image: A marged operation current leat DC-13,25 V Switching function Image: A marged operation current leat DC-13,25 V Image: A marged operation switch Dutput electronic Image: A marged operation switch Image: A marged operation switch Switching function Image: A marged operation switch Image: A marged operation switch Number of safety auxiliary contacts Image: A marged operation switch Image: A marged operation switch Number of contacts as anomally copen contact Image: A marged operation switch Image: A marged operation switch Number of contacts as anomally copen contact Image: A marged operation switch Image: A marged operation switch Number of contacts as anomally copen contact Image: A marged operation switch Image: A marged operation switch Number of contacts as anomally copen contact Image: A marged operation	Length of sensor	mm	39
Rated operation current le at AC-15, 230 VAABRated operation current le at DC-13, 250 VA00Switching functionA0Switching functionSwitching functionSwitching functionSwitching functionNoOutput electronicMMSwitching functionSwitching	Rated operation current le at AC-15, 24 V	А	6
Reted operation current le at DC-13, 25 V A B Reted operation current le at DC-13, 125 V A B Reted operation current le at DC-13, 230 V A Gow-action switch Switching function Switching function Switching function Output electronic Switching function No Number of safety auxiliary contacts F Switching function Number of contacts as normally closed contact F Switching function Number of contacts as normally closed contact F Switching function Number of contacts as normally closed contact F Switching function Number of contacts as normally closed contact F Switching function Number of contacts as normally closed contact F Switching function Number of contacts as normally closed contact F Switching function Number of contacts as normally closed contact F Switching function Number of contacts as normally closed contact F Switching function Number of contacts as normally closed contact F Switching function Switchi function Switching function	Rated operation current le at AC-15, 125 V	А	6
Rated operation current le at DC-13, 125 V A B Rated operation current le at DC-13, 230 V A B Switching function A Bow-action switch Output electronic Sow-action switch No Forced opening Voltage Sow-action switch Number of safety auxiliary contacts C A Sow-action switch Number of contacts as normally closed contact C G Sow-action switch Number of contacts as normally open contact C G Sow-action switch Sow-action switch Youe of contacts as normally open contact C G Sow-action switch Sow-action switch Youe of contacts as normally open contact C G Sow-action switch Sow-action switch Youe of contacts as normally open contact C G Sow-action switch Sow-action switch Youe of contacts as normally open contact C G Sow-action switch Sow-action switch Youe of contacts as normally open contact C G Sow-action switch Sow-action switch Youe of contacts as normally open contact C G Sow-action switch Sow-action switc	Rated operation current le at AC-15, 230 V	А	6
Reted operation current le at DC-13, 230 V A 3 Switching function Skwitching function Skwitching function Output electronic No Skwitching function Forced opening Ves Skwitching function Number of safety auxiliary contacts P 2 Number of contacts as normally closed contact P 2 Number of contacts as normally open contact P 2 Number of contacts as normally open contact P None Yue of interface None None Number of contacts as change-over contact P None Yue of interface for safety communication P None Notary of the function type housing P None Rotary of the function type housing P P None Attriat housing P P P P Coating housing P	Rated operation current le at DC-13, 24 V	А	3
Switching function Solve-action switch Dutput electronic No Forced opening Ves Number of safety auxiliary contacts 2 Number of contacts as normally closed contact 2 Number of contacts as normally copen contact 0 Number of contacts as change-over contact 0 Yue of interface None Type of interface for safety communication None Housing according to norm Cubid Construction type housing Solve Material housing Solve Conting housing Solve Type of control element Solve Type of control element Solve Type of control element Solve Type of electric connection Solve	Rated operation current le at DC-13, 125 V	А	0.8
Duput electronic No Forced opening Yes Number of safety auxiliary contacts 2 Number of contacts as normally closed contact 2 Number of contacts as normally closed contact 2 Number of contacts as normally closed contact 0 Number of contacts as normally closed contact 0 Number of contacts as normally closed contact No Number of contacts as change-over contact 0 Type of interface None Type of interface for safety communication Yes Housing according to norm Cobid Contruction type housing Yes Material housing Yes Coating housing Yes Alignment of the control element Yes Alignment of the control element Yes Type of electric connection Yes Type of electric connection Yes Alignment of the control element Yes Type of electric connection Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes <t< td=""><td>Rated operation current le at DC-13, 230 V</td><td>А</td><td>0.3</td></t<>	Rated operation current le at DC-13, 230 V	А	0.3
Forced opening Yes Number of safety auxiliary contacts 2 Number of contacts as normally closed contact 2 Number of contacts as normally contact 2 Number of contacts as normally contact 3 Number of contacts as normally contact 3 Number of contacts as normally contact 3 Number of contacts as change-over contact 3 Type of interface None Type of interface for safety communication None Numbing according to norm 3 Construction type housing 4 Coating housing 5 Type of control element 6 Alignment of the control element 6 Type of electric connection 6	Switching function		Slow-action switch
Number of safety auxiliary contactsImage: safety auxiliary contactsImage: safety auxiliary contactImage: safety auxiliary contactImage: safety contactsImage: safety contactsImage	Output electronic		No
Number of contacts as normally closed contactImage: Section of Contacts as normally open contactImage: Section of Contacts as normally open contactImage: Section of Contacts as change-over contactsImage: Section of ContactsImage: Sec	Forced opening		Yes
Number of contacts as normally open contact Image: Properties of the second secon	Number of safety auxiliary contacts		2
Number of contacts as change-over contactImage: Contacts as change-over contactsImage: Conta	Number of contacts as normally closed contact		2
Type of interfaceNoneType of interface for safety communicationImage: Solution of the safety communicationNoneHousing according to normImage: Solution of the safety communicationImage: Solution of the safety communicationImage: Solution of the safety communicationConstruction type housingImage: Solution of the safety communicationImage: Solution of the safety communicationImage: Solution of the safety communicationNoneImage: Solution of the safety communicationImage: Solution of the safety communicationImage: Solution of the safety communicationNoneImage: Solution of the safety communicationImage: Solution of the safety communicationImage: Solution of the safety communicationNoneImage: Solution of the safety communicationImage: Solution of the safety communicationImage: Solution of the safety communicationNoneImage: Solution of the safety communicationImage: Solution of the safety communicationImage: Solution of the safety communicationNoneImage: Solution of the safety communicationImage: Solution of the safety communicationImage: Solution of the safety communicationNoneImage: Solution of the safety communicationImage: Solution of the safety communicationImage: Solution of the safety communicationNoneImage: Solution of the safety communicationImage: Solution of the safety communicationNoneNoneImage: Solution of the safety communicationImage: Solution of the safety communicationNoneNoneImage: Solution of the safety communicationImage: Solution of the safety communication	Number of contacts as normally open contact		0
Type of interface for safety communication Mode Housing according to norm Mode Construction type housing Mode Material housing Mode Coating housing Mode Type of control element Mode Alignment of the control element Mode Type of electric connection Mode	Number of contacts as change-over contact		0
Housing according to normImage: Second S	Type of interface		None
Construction type housing Material housing Cuboid Material housing Material housing Plastic Coating housing Material housing - Type of control element Material housing - Alignment of the control element Material housing - Type of electric connection Material housing -	Type of interface for safety communication		None
Material housingMaterial housingPlasticCoating housingIIIType of control elementIIIAlignment of the control elementIIIType of electric connectionIII	Housing according to norm		
Coating housing Image: Coating housing Type of control element Image: Coating housing Alignment of the control element Image: Coating housing Type of electric connection Image: Coating housing	Construction type housing		Cuboid
Type of control elementImage: Sector Control elementImage: Sector Control elementImage: Sector Control elementAlignment of the control elementImage: Sector Control elementImage: Sector Control elementType of electric connectionImage: Sector Control elementImage: Sector Control element	Material housing		Plastic
Alignment of the control element Image: Control element Type of electric connection Image: Control element	Coating housing		
Type of electric connection -	Type of control element		
·	Alignment of the control element		
	Type of electric connection		
With status indication No	With status indication		No
Suitable for safety functions Yes	Suitable for safety functions		Yes
Explosion safety category for gas None	Explosion safety category for gas		None

Explosion safety category for dust		None
Ambient temperature during operating	°C	-25 - 70
Degree of protection (IP)		IP65
Approvals		
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

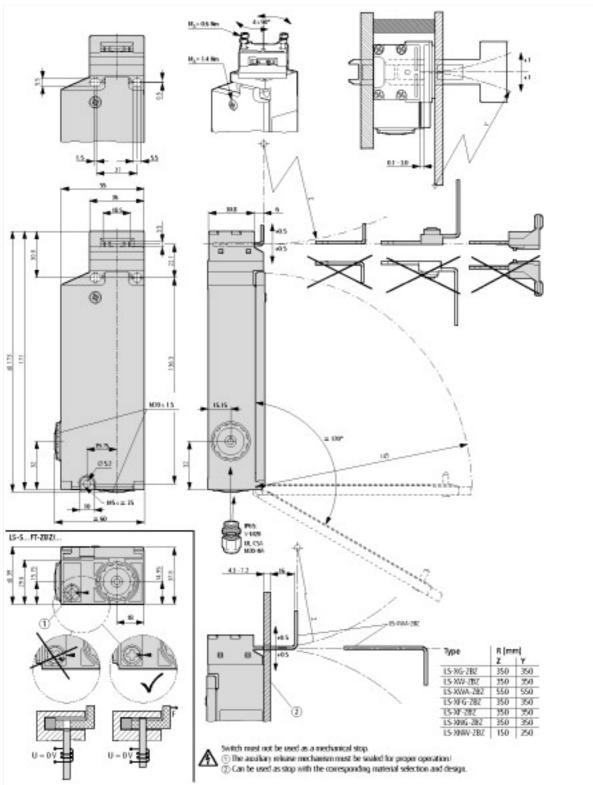
UL listed, CSA certified

IEC: IP65, UL/CSA Type 3R, 4X (indoor use only), 12, 13

Dimensions

Degree of Protection

North America Certification



Additional product information (links)

IL05208005Z (AWA1310-2354) Safety position switch

IL05208005Z (AWA1310-2354) Safety position switch ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05208005Z2016_06.pdf