DATASHEET - LSR-S02-1-I/TS

Part no. Catalog No.

EL-Nummer

(Norway)



Hinge-operated safety switch, 2 N/C, insulated material

LSR-S02-1-I/TS

106852

4356192

Eaton Catalog No. LSR-S02-1-I/TS





Delivery program

benvery program		
Basic function		Position switches Safety position switches
Part group reference		LSR
Product range		Safety hinge switch
Degree of Protection		IP65
Features		Complete unit
Ambient temperature	°C	-25 - +70
Approval		ET 17042 Sicherheit geprüft tested safety
Contacts		
N/C = Normally closed		2 NC 🛞
Notes		⊖ = safety function, by positive opening to IEC/EN 60947-5-1
Contact sequence		o
Contact travel = Contact closed = Contact open		$ \begin{array}{c} 0 \\ 21 - 22 \\ 11 - 12 \\ 180^{\circ} \\ Zw = 10^{\circ} \end{array} $ $ \begin{array}{c} 0 \\ 30^{\circ} \\ 180^{\circ} \end{array} $
Housing		Insulated material
Connection type		Screw terminal

Technical data

General		
Standards	IEC/EN 60947	
Climatic proofing	Damp heat, constant, to IEC 60068-2-78; damp heat, cyclica	al, to IEC 60068-2-30
Ambient temperature	°C -25 - +70	
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

Notation voltage Notation voltag	Contacts/switching capacity			
Actor <	Rated impulse withstand voltage	U _{imp}	V AC	6000
ĀC-15IchIchIch4VIchAIch20V20V24VIchIchIch300V40V415VIchIchIchDC-13IchIchIch24VIchIchIch11VIchIchIch22VIchIchIch22VIchIchIchIntroduction IchIchIchIchIntroduction IchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIchIch<	Rated insulation voltage	Ui	V	500
AVIcoAA20V 230 V 240 VIcoAA300 V 400 V 15 VIcoAA300 V 400 V 15 VIcoAADC-13IcoAA2 V AIcoAA10 VIcoAB20 VIcoAB30 VIcoABAIcoABAIcoIcoAAIcoIcoAAIcoIcoAAIcoIcoIcoBIcoIcoIcoAIcoIcoIcoBIcoIcoIcoBIcoIcoIcoBIcoIcoIcoBIcoIcoIcoBIcoIcoIcoBIcoIcoIco<	Rated operational current	le	А	
20 V 28 V 24 V V Ie A 20 V 28 V 24 V V Ie A 380 V 400 V 415 V Ie A 24 V Ie A 24 V Ie A 10 V Ie A 20 V 28 V 24 V Ie A 20 V 38 V 40 V 415 V Ie A 24 V Ie A 24 V Ie A 24 V Ie A 20 V Ie A Stadard actor Ie A 38 Or A Ie A 39 Or A Ie Ie 30 Or A <td>AC-15</td> <td></td> <td></td> <td></td>	AC-15			
380 400 V 415 V Pe A 4 DC-13 Pe A 5 24 V Pe A 3 10 V Pe A 3 20 V Pe A 3 20 V Pe A 3 20 V Pe A 3 Suply frequency Pe A 3 Suply frequency Pe Pe Pe max. fuse Pe Pe Pe Repetition accuracy Pe A 9 Repetitionaccuracy Per Na Per Mechanical shock resistance (helf-sinusoidal shock, 20 ms) Per Per Standr-dction contact Per Pe Per	24 V	I _e	А	6
DC-13 Image: Constraint of the second seco	220 V 230 V 240 V	I _e	А	6
24VImage: Participant state s	380 V 400 V 415 V	le	А	4
In VInInInInIn20 VInA0.820 VInA0.3Supply frequencyInInMax. 400Short-circuit rating to IEC/EN 60947-51InSecondmax. fuseInA GG/GInRepetition accuracyIn0.2Repetition accuracyInNoMechanical short-circuit currentOperationsInMechanical shock resistance (half-sinusoidal shock, 20 ms)InInStandard-action contactInInInternational short-circuit currentInInInternational shock resistance (half-sinusoidal shock, 20 ms)InInInternational short-circuit currentInInInternational short-circuit currentInInInternational shock resistance (half-sinusoidal shock, 20 ms)InInternational short-circuit currentInInInternational short-ci	DC-13			
20 VIeA0.3Supply frequencyHzmax.400Short-circuit rating to IEC/EN 60947-5-1max. fuseA g G/g L6Repetition accuracyMg G/g L0.02Rated conditional short-circuit currentVertamine-Mechanical variablesItespan, mechanicalMgerationStandard-action contactImage AStandard-action contactImage AStandard-action contactStandard-action contact<	24 V	le	А	3
Supply frequency Hz max.400 max.fuse A gG/gL G Repetition accuracy A gG/gL Max Rated conditional short-circuit current Max Max Mechanical variables Jerations Yang Itespan, mechanical Nerations Yang Standard-action contact Imax Jana	110 V	le	А	0.8
Short-circuit rating to IEC/EN 60947-5-1 Imax A g G/L A g G/L max. fuse A g G/L Mmax 0.02 Repetition accuracy KA 1 Rated conditional short-circuit current KA 1 Mechanical variables Yerations Y 10 ⁶ Iterspan, mechanical Operations Y 10 ⁶ Mechanical short-resistance (half-sinusoidal short, 20 ms) Imax 1 Standard-action contact g 25	220 V	I _e	А	0.3
max.fuseA g6/gLA g6/gL<	Supply frequency		Hz	max. 400
Repetition accuracy mm 0.02 Rated conditional short-circuit current kA 1 Mechanical variables y y Lifespan, mechanical Operations x 10° Mechanical shock resistance (half-sinusoidal shock, 20 ms) y y 1 Standard-action contact g 25	Short-circuit rating to IEC/EN 60947-5-1			
Rated conditional short-circuit current KA Mechanical variables Lifespan, mechanical Mechanical shock resistance (half-sinusoidal shock, 20 ms) Standard-action contact	max. fuse		A gG/gL	6
Mechanical variables Lifespan, mechanical Operations x 10 ⁶ 1 Mechanical shock resistance (half-sinusoidal shock, 20 ms) Image: Standard-action contact g g	Repetition accuracy		mm	0.02
Lifespan, mechanical Operations x 10 ⁶ Mechanical shock resistance (half-sinusoidal shock, 20 ms) g Standard-action contact g	Rated conditional short-circuit current		kA	1
Mechanical shock resistance (half-sinusoidal shock, 20 ms) g Standard-action contact g	Mechanical variables			
Standard-action contact g 25	Lifespan, mechanical	Operations	x 10 ⁶	1
	Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Operating frequency Operations/h ≦ 1800	Standard-action contact		g	25
	Operating frequency	Operations/h		≦ 1800

Design verification as per IEC/EN 61439

Design vermoution as per reo, en ortos			
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	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
10.12 Electromagnetic compatibility
10.13 Mechanical function

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

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The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

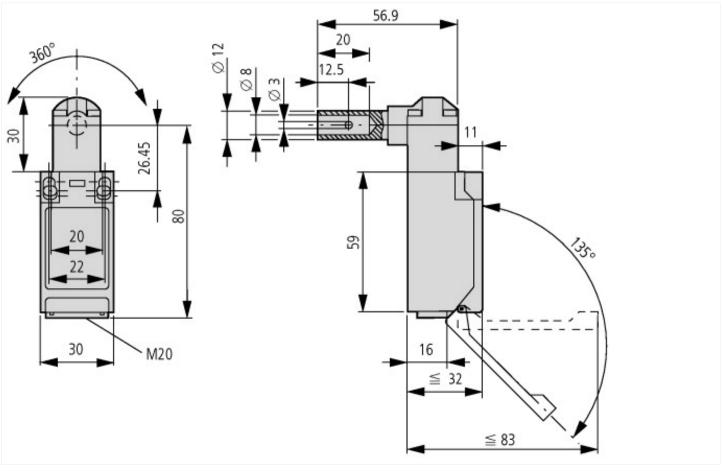
Sensors (EG000026) / Hinge switch (EC002591)

Electric engineering, automation, process control engineering / Binary sensor techno [ACN833011])	logy, safety-related s	ensor technology / Position switch / Hinge switch (ecl@ss10.0.1-27-27-06-09
With status indication		No
Suitable for safety functions		Yes
Type of control element		Hollow shaft
Forced opening		Yes
Number of safety auxiliary contacts		0
Number of contacts as normally closed contact		2
Number of contacts as normally open contact		0
Number of contacts as change-over contact		0
Type of switching contact		Slow-action switch
Width sensor	mm	30
Height of sensor	mm	91
Length of sensor	mm	32
Rated operation current le at AC-15, 24 V	А	10
Rated operation current le at AC-15, 125 V	А	0
Rated operation current le at AC-15, 230 V	А	6
Rated operation current le at DC-13, 24 V	А	3
Rated operation current le at DC-13, 125 V	А	1
Rated operation current le at DC-13, 230 V	А	0.5
Construction type housing		Cuboid
Material housing		Plastic
Coating housing		Other
Type of electric connection		Cable entry metrical
Explosion safety category for gas		None
Explosion safety category for dust		None
Type of interface		None
Type of interface for safety communication		None
Degree of protection (IP)		IP65
Degree of protection (NEMA)		Other

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
North America Certification	UL listed, CSA certified
Degree of Protection	IEC: IP65, UL/CSA Type 3R, 4X (indoor use only), 12, 13

Dimensions



Additional product information (links)

IL05208006Z (AWA1310-2363) Hasp-Operated and Hinge-Operated Safty Switches

IL05208006Z (AWA1310-2363) Hasp-Operated ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05208006Z2018_09.pdf and Hinge-Operated Safty Switches