


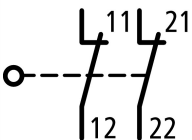


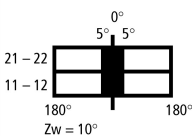




Hinge-operated safety switch, LSR, Safety hinge switch, Complete unit, 2 NC, Insulated material, Screw terminal, -25 - +70 °C

Part no. LSR-S02-1-I/TS
Catalog No. 106852
Alternate Catalog No. LSR-S02-1-I/TS
EL-Nummer (Norway) 4356192

Delivery 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		
Contacts		
N/C = Normally closed		2 NC 
Notes		 = safety function, by positive opening to IEC/EN 60947-5-1
Contact sequence		
Contact travel  = Contact closed  = Contact open		
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, cyclical, 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)
Repetition accuracy	mm	0.02

Contacts/switching capacity

Rated impulse withstand voltage	U _{imp}	V AC	6000
Rated insulation voltage	U _i	V	500
Rated operational current	I _e	A	
AC-15			
24 V	I _e	A	6
220 V 230 V 240 V	I _e	A	6
380 V 400 V 415 V	I _e	A	4
DC-13			
24 V	I _e	A	3
110 V	I _e	A	0.8
220 V	I _e	A	0.3
Supply frequency		Hz	max. 400
Short-circuit rating to IEC/EN 60947-5-1			
max. fuse		A gG/gL	6
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	25
Operating frequency	Operations/h		≤ 1800

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	A	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
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 7.0

Sensors (EG000026) / Hinge switch (EC002591)			
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Position switch / Hinge switch (ecl@ss10.0.1-27-27-06-09 [ACN833011])			
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 I _e at AC-15, 24 V		A	10
Rated operation current I _e at AC-15, 125 V		A	0
Rated operation current I _e at AC-15, 230 V		A	6
Rated operation current I _e at DC-13, 24 V		A	3
Rated operation current I _e at DC-13, 125 V		A	1
Rated operation current I _e at DC-13, 230 V		A	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

