



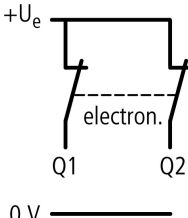
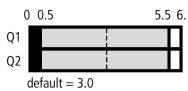
Safety position switch, LSE, Position switch with electronically adjustable operating point, Basic device, expandable, 2 NC, Yellow, Insulated material, Cage Clamp, -25 - +70 °C

Part no. LSE-02
Catalog No. 266122
Alternate Catalog No. LSE-02
EL-Nummer (Norway) 4356041

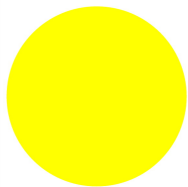
Delivery program

Basic function			Position switches Safety position switches
Part group reference			LSE
Product range			Position switch with electronically adjustable operating point
Degree of Protection			IP66, IP67
Features			Basic device, expandable
Ambient temperature		°C	-25 - +70
Description			Visual status indication comparable with positive opening function Device goes into safe state on high interference. Can be used in safety circuits partly short-circuit proof Restart after reset Individual operating point adjustment
Approval			

Contacts

N/C = Normally closed			2 NC
Contact sequence			
Contact travel  = Contact closed  = Contact open			
Rated voltage	U _e	V DC	12 - 30

Colour

Enclosure covers			Yellow
Enclosure covers			
Housing			Insulated material
Connection type			Cage Clamp
Notes			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

Technical data

Standards			IEC/EN 60947 EN 61000-4
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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, IP67
Terminal capacities		mm ²	
Solid		mm ²	1 x (0.5 - 2.5)
Flexible with ferrule		mm ²	1 x (0.5 - 1.5)
Repetition accuracy		mm	0.02

Power supply

Rated voltage	U _e	V DC	12 - 30
Rated operational current	I _e	A	
12 V	I _e	A	0.015
24 V	I	mA	18
30 V	I	A	0.019

Contacts/switching capacity

Overvoltage category/pollution degree			III/3
Rated operational current	I _e	A	
DC-13			
24 V	I _e	A	0.2

Mechanical variables

Lifespan, mechanical	Operations	x 10 ⁶	3
Notes			(electronic)
Contact temperature of roller head		°C	≤ 100
Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Basic unit		g	30
Operating frequency	Operations/h		≤ 3000
Switching point			0.5 - 5.5 mm, freely adjustable
Hysteresis		mm	0.4
Contact sequence (contact closed open Zw = positive opening clearance)		mm	0.04

Actuation

Mechanical			
Actuating force at beginning/end of stroke		N	3.5/8.0
Actuating torque of rotary drives		Nm	0.2
Max. operating speed with DIN cam		m/s	1/0.5
Notes			for angle of actuation α = 0°/30°

Electromagnetic compatibility (EMC)

Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD)		kV	
Air discharge		kV	8
Contact discharge		kV	4
Electromagnetic fields (RFI) to IEC EN 61000-4-3		V/m	10
Burst Impulse (IEC/EN 61000-4-4, Level 3)			
Supply cable		kV	2
Signal lines		kV	2
Power pulses (surge) (IEC/EN 61000-4-5)		kV	0.5
Immunity to line-conducted interference to (IEC/EN 61000-4-6)		V	10

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	A	0.2
Heat dissipation per pole, current-dependent	P _{vid}	W	0.15
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	0.4
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) / End switch (EC000030)			
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Position switch / Position switch (Type 1) (ec1@ss10.0.1-27-27-06-01 [AGZ382015])			
Width sensor	mm		31
Diameter sensor	mm		0
Height of sensor	mm		61
Length of sensor	mm		33.5
Rated operation current I _e at AC-15, 24 V	A		0
Rated operation current I _e at AC-15, 125 V	A		0
Rated operation current I _e at AC-15, 230 V	A		0
Rated operation current I _e at DC-13, 24 V	A		0.2
Rated operation current I _e at DC-13, 125 V	A		0
Rated operation current I _e at DC-13, 230 V	A		0
Switching function			Slow-action switch
Switching function latching			No
Output electronic			Yes
Forced opening			No
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 interface			None
Type of interface for safety communication			None
Construction type housing			Cuboid
Material housing			Plastic
Coating housing			Other
Type of control element			Plunger

Alignment of the control element			Other
Type of electric connection			Other
With status indication			Yes
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)			IP67
Degree of protection (NEMA)			4X

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: IP66, 67, UL/CSA Type 3R, 4X (indoor use only), 12, 13

Dimensions

Technical drawings of the IL05208001Z electronic position switch showing front, side, and top views with dimensions in mm.

Front view dimensions: Total height 55, mounting hole center-to-center 31, mounting hole diameter M20, top screw hole diameter 8.2, distance from top to mounting holes 21, distance between mounting holes 5.3, distance from mounting holes to bottom 1.95, distance from top to top screw hole 12.7, distance from top screw hole to side 25, distance from top screw hole to bottom 11.7, distance from side to bottom 76, distance from side to bottom 14, distance from side to bottom 33.5.

Side view dimensions: Total height 50, mounting hole center-to-center 22, mounting hole diameter 20, top screw hole diameter 4.3, distance from top to mounting holes 7.3, distance between mounting holes 4.3, distance from mounting holes to bottom 4.3, distance from top to top screw hole 12.7, distance from top screw hole to side 25, distance from top screw hole to bottom 11.7, distance from side to bottom 76, distance from side to bottom 14, distance from side to bottom 33.5.

Top view dimensions: Total width 31, mounting hole center-to-center 22, mounting hole diameter 20, top screw hole diameter 4.3, distance from top to mounting holes 7.3, distance between mounting holes 4.3, distance from mounting holes to bottom 4.3, distance from top to top screw hole 12.7, distance from top screw hole to side 25, distance from top screw hole to bottom 11.7, distance from side to bottom 76, distance from side to bottom 14, distance from side to bottom 33.5.

① Tightening torque of cover screws: 0.8 Nm ±0.2 Nm
 ② only with LS (insulated version)
 ③ Fixing screws 2 x M4 ≥ 30
 M_A = 1.5 Nm

Additional product information (links)

IL05208001Z (AWA1310-2349) Electronic position switch		
IL05208001Z (AWA1310-2349) Electronic position switch	https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL05208001Z2018_08.pdf	