Position switch, Rounded plunger, Basic device, expandable, 2 N/O, Cage Clamp, Yellow, Insulated material, -25 - +70 °C, version A



Part no. LS-20A

292362

EL Number

4315235

(Norway)

(Notway)	
General specifications	
Product name	Eaton Moeller® series LS Position switch
Part no.	LS-20A
EAN	4015082923624
Product Length/Depth	33.5 millimetre
Product height	76.5 millimetre
Product width	31 millimetre
Product weight	0.05 kilogram
Certifications	CSA Class No.: 3211-03 CSA UL Category Control No.: NKCR CSA File No.: 012528 IEC/EN 60947-5 CE UL UL 508 CSA-C22.2 No. 14 IEC/EN 60947 UL File No.: E29184
Product Tradename	LS
Product Type	Position switch
Product Sub Type	None
Catalog Notes	Accessories for the Cage-Clamp terminals from Wago:power comb, gray, Wago Article No. 264-402 Cage-Clamp is a registered trademark of Wago Kontakttechnik, 32432 Minden, Germany
Features & Functions	
Electric connection type	Cable entry metrical
Enclosure color	Yellow Cover
Enclosure material	Insulated material Plastic
Features	Expandable
Switch function type	Slow-action switch
General information	
Connection type	Cage Clamp
Degree of protection	IP66/IP67 NEMA Other
Lifespan	8,000,000 mechanical Operations
Operating frequency	6000 Operations/h
Overvoltage category	III
Pollution degree	3
Product category	Rounded plunger
Rated impulse withstand voltage (Uimp)	4000 V AC
Repetition accuracy	0.15 mm (Contacts/switching capacity)
Туре	Position switch
Ambient conditions, mechanical	
Mounting position	As required
Shock resistance	25 g, Standard-action contact, Mechanical, Half-sinusoidal shock 20 ms
Temperature resistance	100 °C, Contact temperature of roller head
Climatic environmental conditions	
	2E oC
Ambient operating temperature - min Ambient operating temperature - max	-25 °C 70 °C
	70 ° G

	Damp heat, cyclic, to IEC 60068-2-30
Terminal capacities	
Terminal capacity (flexible with ferrule)	1 x (0.5 - 1.5) mm ²
Terminal capacity (solid)	1 x (0.5 - 2.5) mm ²
Electrical rating	
Rated conditional short-circuit current (Ig)	1 kA
Rated insulation voltage (Ui)	400 V
Rated operational current (Ie) at AC-15, 220 V, 230 V, 240 V	6 A
Rated operational current (Ie) at AC-15, 24 V	6 A
Rated operational current (Ie) at AC-15, 380 V, 400 V, 415 V	4 A
Rated operational current (Ie) at DC-13, 110 V	0.6 A
Rated operational current (Ie) at DC-13, 125 V	0.8 A
Rated operational current (Ie) at DC-13, 220 V, 230 V	0.3 A
Rated operational current (Ie) at DC-13, 24 V	3 A
Short-circuit protection rating	Max. 6 A gG/gL, Fuse, Contacts
Supply frequency	Max. 400 Hz, Contacts
Actuator	
Actuating force at beginning/end of stroke	1.0 N/8.0 N
Actuating toroid at beginning, the or basis of Actuating torque of rotary drives	0.2 N·m
Actuator type	Plunger
Operating speed	Max. 1/0.5 m/s (with DIN cam, mechanical actuation) For angle of actuation $\alpha = 0^{\circ}/30^{\circ}$
Contacts	
Control circuit reliability	1 failure per 5,000,000 switching operations (statistically determined, at 5 V DC/1
	mA) 1 failure per 10,000,000 switching operations (Statistically determined, at 24 V DC/5 mA)
Number of contacts (change-over contacts)	0
Number of contacts (normally closed contacts)	0
Number of contacts (normally open contacts)	2
Safety	
Explosion safety category for gas	None
Explosion safety category for dust	None
Design verification	
Equipment heat dissipation, current-dependent Pvid	0 W
Heat dissipation capacity Pdiss	0 W
Heat dissipation per pole, current-dependent Pvid	0.17 W
Rated operational current for specified heat dissipation (In)	6 A
Static heat dissipation, non-current-dependent Pvs	0 W
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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.
10.9.2 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 9.0

Sensors (EG000026) / End switch (EC000030)

Electric engineering, automation, process control engineering / Sensor technology, safety-related sensor technology / Safety-related mechanical switch (sensor technology) / Safety position switch (Type 1) (ect@ss13-77-77-76-01 [AKF640018])

Diameter sansor mm 0 Height of sensor mm 33-5 Length of sensor mm 33-5 Rated operation current le at AC-15, 24 V A 6 Rated operation current le at AC-15, 230 V A 6 Rated operation current le at DC-13, 24 V A 0 Rated operation current le at DC-13, 25 V A 0 Rated operation current le at DC-13, 250 V A 0 Rated operation current le at DC-13, 250 V A 0 Rated operation current le at DC-13, 250 V A 0 Rated operation current le at DC-13, 250 V A 0 Rated operation current le at DC-13, 250 V A 0 Switching function lixthing I No 0 Switching function lixthing I No 0 Forced opening I 0 0 Number of safety awilliary contacts I 0 0 Number of contacts as normally closed contact I 0 0 Type of interface I 0 <th< th=""><th>switch (Type 1) (ecl@ss13-27-27-26-01 [AKE640018])</th><th>r-related sensor te</th><th>eciniology / Salety-leiated mechanical switch (sensor technology) / Safety position</th></th<>	switch (Type 1) (ecl@ss13-27-27-26-01 [AKE640018])	r-related sensor te	eciniology / Salety-leiated mechanical switch (sensor technology) / Safety position
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Length of sensor mm 33.5 Rated operation current le at AC-15, 25 V A 6 Rated operation current le at AC-15, 230 V A 6 Rated operation current le at DC-13, 24 V A 3 Rated operation current le at DC-13, 25 V A 0.8 Rated operation current le at DC-13, 230 V A 0.3 Rated operation current le at DC-13, 230 V A 0.3 Switching function No No Output electronic No No Forced operation No No Forced operation guestion No No Forced operation guestion No No Switching function latching No No Output electronic No No Forced operation guestion No No Number of contacts as normally closed contact 2 No Number of contacts as normally closed contact No No Vege of interface for safety communication No No Construction type housing Yelpage Plastic	Diameter sensor	mm	0
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Rated operation current le at AC-15, 125 V A 6 Rated operation current le at AC-15, 230 V A 3 Rated operation current le at DC-13, 24 V A 0 Rated operation current le at DC-13, 25 V A 0 Reted operation current le at DC-13, 230 V A 0 Switching function Image: Slow-action switch Switching function latching No Output electronic No Forced opening No Number of safety auxiliary contacts 0 Number of contacts as normally losed contact 0 Number of contacts as normally open contact 2 Type of interface for safety communication None Virus of interface for safety communication None Construction type housing Dubid Housing material Cuboid Construction type housing Planger Alignment of the control element None Alignment of the control element None With status indication None Explosion safety category for gas None Explosion safety	Length of sensor	mm	33.5
Rated operation current le at DC-13, 24 V A 6 Rated operation current le at DC-13, 25 V A 0.8 Rated operation current le at DC-13, 125 V A 0.3 Rated operation current le at DC-13, 230 V A 0.3 Switching function latching No No Output electronic No No Forced opening No No Number of safety auxiliary contacts 0 O Number of contacts as normally closed contact 2 O Number of contacts as normally open contact 2 None Type of interface for safety cummunication None None Construction type housing Cubaid Plustic Construction type housing Cubaid Plustic Construction type housing Other Plunger Housing material Cubaid Plunger Logistic connection Plunger Cubaid Alignment of the control element No No Type of electric connection No No With status indication	Rated operation current le at AC-15, 24 V	Α	6
Rated operation current le at DC-13, 24 V A 0.8 Rated operation current le at DC-13, 125 V A 0.8 Rated operation current le at DC-13, 230 V A 0.3 Switching function Switching function latching Output electronic Forced opening Number of safety auxiliary contacts Number of contacts as normally closed contact Number of contacts as normally open contact Viyee of interface for safety communication Construction type housing Housing material Coating housing Viyee of control element Aligoment of the control element Viyee of control element Aligoment of the control element Viyee of safety functions Explosion safety category for dust Ambient temperature during operating *C 25-70 Degree of protection (IP)	Rated operation current le at AC-15, 125 V	Α	6
Rated operation current le at DC-13, 125 V A 0.3 Rated operation current le at DC-13, 230 V A 0.3 Switching function Switching function latching Output ledetronic Forced opening Number of safety auxiliary contacts Number of contacts as normally closed contact Number of contacts as normally open contact Vipe of interface for safety communication Construction type housing Housing material Coating housing Liquid entertact Coating housing Liquid entertact Liquid en	Rated operation current le at AC-15, 230 V	Α	6
Rated operation current le at DC-13, 230 V Switching function Switching function latching Output electronic Output elect	Rated operation current le at DC-13, 24 V	Α	3
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Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating CC -25 - 70 Degree of protection (IP) No IP66/IP67	Type of electric connection		Cable entry metrical
Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating C -25 - 70 Degree of protection (IP) None 1P66/IP67	With status indication		No
Explosion safety category for dust Ambient temperature during operating °C -25 - 70 Degree of protection (IP) IP66/IP67	Suitable for safety functions		No
Ambient temperature during operating °C -25 - 70 Degree of protection (IP) IP66/IP67	Explosion safety category for gas		None
Degree of protection (IP) IP66/IP67	Explosion safety category for dust		None
	Ambient temperature during operating	°C	-25 - 70
Degree of protection (NEMA) Other	Degree of protection (IP)		IP66/IP67
	Degree of protection (NEMA)		Other