



Eaton 178140

Eaton Moeller® series LS Position switch, Roller lever, Complete device, 1 N/O, 1 NC, Snap-action contact - Yes, Cage Clamp, Yellow, Insulated material, -25 - +70 °C, with M12 connector, EN 50047 Form E, Long

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PRODUCT NAME	Eaton Moeller® series LS Position switch
CATALOG NUMBER	178140
PRODUCT LENGTH/DEPTH	33.5 mm
PRODUCT HEIGHT	111 mm
PRODUCT WIDTH	31 mm
PRODUCT WEIGHT	0.063 kg
CERTIFICATIONS	IEC/EN 60947



Powering Business Worldwide

TYPE	<ul style="list-style-type: none"> Position switch Safety position switch
FEATURES	Positive opening Snap-action contact Forced opening
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.
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

DECLARATIONS OF CONFORMITY	eaton-position-switch-declaration-of-conformity-uk251032en.pdf
00000	IL053001ZU
000	eaton-position-switches-contact-ls-wiring-diagram.eps
00000	eaton-position-switches-diagram-ls-contact-travel-diagram-017.eps
	eaton-position-switches-ls-dimensions-004.eps
00	eaton-position-switches-ls-dimensions-002.eps eaton-position-switches-ls-3d-drawing-004.eps

	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.
ELECTRIC CONNECTION TYPE	Connector M12
ENCLOSURE MATERIAL FINISHING	Other
OPERATING FREQUENCY	6000 Operations/h
POLLUTION DEGREE	3
ACTUATOR ALIGNMENT	Other
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
ENCLOSURE MATERIAL	Plastic Insulated material
ENCLOSURE TYPE	Cuboid
RATED OPERATIONAL CURRENT (IE) AT DC-13, 110 V	0.8 A
RATED OPERATIONAL CURRENT (IE) AT DC-13, 125 V	0.6 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

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	6 A
SENSOR HEIGHT	86 mm
SENSOR LENGTH	33.5 mm
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W
WIDTH SENSOR	31 mm
ACCESSORIES	M12 connector included.
PRODUCT CATEGORY	Roller lever
ACTION	2020122120328-Mechanical Limit Switches.xlsm-Data
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	2500 V AC
ENCLOSURE COLOR	Yellow Cover
EXPLOSION SAFETY CATEGORY FOR DUST	None
EXPLOSION SAFETY CATEGORY FOR GAS	None
ACTUATOR TYPE	Roller lever
ACTUATING TORQUE OF ROTARY DRIVES	0.2 Nm
AMBIENT OPERATING TEMPERATURE - MAX	70 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
DIAMETER SENSOR	0 mm
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0.17 W
NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	1
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	1
NUMBER OF SAFETY AUXILIARY CONTACTS	1

RATED INSULATION VOLTAGE (UI)	250 V
RATED OPERATIONAL CURRENT (IE) AT AC-15, 115 V	4 A
RATED OPERATIONAL CURRENT (IE) AT AC-15, 125 V	6 A
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
DESIGN	EN 50047 Form E
MOUNTING POSITION	As required
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	1 kA
OVERVOLTAGE CATEGORY	III
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)
CONNECTION TYPE	Cage Clamp
DEGREE OF PROTECTION	IP66 NEMA Other
INTERFACE TYPE	None
SWITCH FUNCTION TYPE	Quick-break switch
LIFESPAN	8,000,000 mechanical Operations
REPETITION ACCURACY	0.15 mm (Contacts/switching capacity)
SHOCK RESISTANCE	25 g, Standard-action contact, Mechanical, Half-sinusoidal shock 20 ms
SUPPLY FREQUENCY	Max. 400 Hz, Contacts
SUITABLE FOR	Safety functions
OPERATING SPEED	For angle of actuation $\alpha = 30^\circ/45^\circ$ Max. 1 m/s (with DIN cam, mechanical actuation)

SHORT-CIRCUIT PROTECTION RATING	Max. 4 A gG/gL, Fuse, Contacts
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.5 - 1.5) mm ²
TERMINAL CAPACITY (SOLID)	1 x (0.5 - 2.5) mm ²

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:



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