Specifications

Eaton 106857

Eaton Moeller® series LS4 Safety position switch, LS(4)...ZB, Safety position switches, Complete unit, 1 N/O, 1 NC, narrow, Insulated material, Screw terminal, -25 - +70 °C

General specifications	
PRODUCT NAME	Eaton Moeller® series LS4 Safety position switch
CATALOG NUMBER	106857
EAN	4015081066179
PRODUCT LENGTH/DEPTH	42 mm
PRODUCT HEIGHT	130 mm
PRODUCT WIDTH	40 mm
PRODUCT WEIGHT	0.195 kg
CERTIFICATIONS	CSA File No.: 012528 CSA-C22.2 No. 14 CSA CSA Class No.: 3211-03 UL File No.: E29184 IEC/EN 60947-5 UL CE UL 508 IEC/EN 60947 UL Category Control No.: NKCR
MODEL CODE	LS4/S11-1/I/ZB

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Features & Functions

ELECTRIC CONNECTION TYPE	Cable entry metrical
ENCLOSURE MATERIAL	Insulated material Plastic
FEATURES	Forced opening
SWITCH FUNCTION TYPE	Slow-action switch

General

CONNECTION TYPE	Screw terminal
DEGREE OF PROTECTION	IP65 NEMA Other
OPERATING FREQUENCY	1800 Operations/h
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3
PRODUCT CATEGORY	Safety position switches
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6000 V AC
REPETITION ACCURACY	0.02 mm (Contacts/switching capacity)
SUITABLE FOR	Safety functions
TYPE	Safety position switch

Ambient conditions, mechanical

MOUNTING POSITION	As required
SHOCK RESISTANCE	5 g, Standard-action contact, Mechanical, Half-sinusoidal shock 20 ms

Climatic environmental conditions

AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE - MAX	70 °C
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78

Terminal capacities

TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.5 - 1.5) mm^2 2 x (0.5 - 1.5) mm^2
TERMINAL CAPACITY (SOLID)	2 x (0.75 - 1.5) mm^2 1 x (0.75 - 2.5) mm^2
SCREW SIZE	PH1, Terminal screw
TIGHTENING TORQUE	0.9 Nm, Screw terminals

Electrical rating

RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	1 kA
RATED INSULATION VOLTAGE (UI)	500 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	10 A
RATED OPERATIONAL CURRENT (IE) AT AC-15, 380 V, 400 V, 415 V	4 A
RATED OPERATIONAL CURRENT (IE) AT DC-13,	0.8 A

110 V	
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. 10 A gG/gL, Fuse, Contacts
SUPPLY FREQUENCY	Max. 400 Hz, Contacts

Actuator

ACTUATING FORCE AT BEGINNING/END OF STROKE	15 N/20 N (plug-in/pull-out)
ACTUATOR TYPE	Other

Contacts

NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	1
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	1

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	0.1 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	Meets the product

RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT	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	Is the panel builder's

RATING	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.

Resources

CATALOGUES	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf eaton-pushbuttons-signal-towers-sensors-assortment-overview-catalog-ca047003en-en-us.pdf
CERTIFICATION REPORTS	0000SPC-154
CONTROL TRAVEL DIAGRAM	eaton-safety-position-switches-ls4-contact-travel-diagram-002.eps
DECLARATIONS OF CONFORMITY	eaton-safety-position-switch-declaration-of-conformity-eu250564en.pdf
DRAWINGS	eaton-safety-position-switches-actuation-ls4-dimensions-002.eps eaton-safety-position-switches-actuation-ls4-dimensions.eps eaton-safety-position-switches-switch-ls4-dimensions-003.eps eaton-safety-position-switches-enclosure-ls4-3d-drawing.eps
ECAD MODEL	ETN.LS4_S11-1_I_ZB
INSTALLATION INSTRUCTIONS	IL05208004Z
MCAD MODEL	basis_ls4_mit_b_1 basis_ls4_mit_b_1.stp
SALES NOTES	eaton-safety-switches-rs-titan-flyer-fl053001en-en-us.pdf
WIRING DIAGRAMS	eaton-safety-position-switches-contact-ls-wiring-diagram.eps

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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