

**Non-standard switch, TM, 10 A, service distribution board mounting, 1 contact unit(s)**



**Part no. TM-1-SOND\*/IVS  
225346**

<b>General specifications</b>		
Product name		Eaton Moeller® series TM Non-standard switch
Part no.		TM-1-SOND*/IVS
Product Length/Depth		65 millimetre
Product height		60 millimetre
Product width		35.5 millimetre
Product weight		0.04 kilogram
Certifications		IEC/EN 60947 IEC/EN 60947-5-1 VDE 0660
Product Tradename		TM
Product Type		Non-standard switch
Product Sub Type		None
Catalog Notes		Customized version according to form mini rotary switch TM, SOND reorder
<b>Features &amp; Functions</b>		
Number of poles		Zero-pole
<b>General information</b>		
Degree of protection (front side)		IP30 NEMA 2
Lifespan, mechanical		1,000,000 Operations
Mounting method		Service distribution board mounting
Mounting position		As required
Number of contact units		1
Operating frequency		1200 Operations/h
Overvoltage category		III
Pollution degree		3
Product category		Non-standard switch
Rated impulse withstand voltage (Uimp)		4000 V AC
Suitable for		Ground mounting Distribution board installation
<b>Climatic environmental conditions</b>		
Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		50 °C
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
<b>Terminal capacities</b>		
Terminal capacity (flexible with ferrule)		1 x 1.0 mm <sup>2</sup> , ferrules to DIN 46228 2 x 1.0 mm <sup>2</sup> , ferrules to DIN 46228
Terminal capacity (flexible)		1 x 1.5 mm <sup>2</sup> 2 x 1.5 mm <sup>2</sup>
Terminal capacity (solid/flexible with ferrule AWG)		14
Terminal capacity (solid/stranded)		2 x 1,5 mm <sup>2</sup> 1 x 1.5 mm <sup>2</sup>
Screw size		M2.5, Terminal screw
Tightening torque		0.4 Nm, Screw terminals 3.5 lb-in, Screw terminals
<b>Electrical rating</b>		
Rated operating voltage (Ue) at AC - max		500 V
Rated operational power at AC-23A, 400 V, 50 Hz		3 kW
Rated uninterrupted current (Iu)		10 A

Uninterrupted current		Rated uninterrupted current $I_u$ is specified for max. cross-section.
<b>Contacts</b>		
Control circuit reliability		1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA)
<b>Actuator</b>		
Actuator type		Toggle
Number of switch positions		0
<b>Design verification</b>		
Equipment heat dissipation, current-dependent $P_{vid}$		0 W
Heat dissipation capacity $P_{diss}$		0 W
Heat dissipation per pole, current-dependent $P_{vid}$		0.15 W
Rated operational current for specified heat dissipation ( $I_n$ )		10 A
Static heat dissipation, non-current-dependent $P_{vs}$		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

Low-voltage industrial components (EG000017) / Control switch (EC002611)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Control switch (ecl@ss13-27-37-14-14 [ACN998016])		
Type of switch		
Number of poles		0
Max. rated operation voltage $U_e$ AC	V	500
Rated permanent current $I_u$	A	10
Number of switch positions		0
With zero (off) position		No
With retraction in 0-position		No
Device construction		Built-in device
Width in number of modular spacings		0
Suitable for floor mounting		Yes
Suitable for front mounting		No
Suitable for distribution board installation		Yes
Suitable for intermediate mounting		No
Complete device in housing		No

Type of control element			Toggle
Front shield size			Other
Degree of protection (IP), front side			IP30
Degree of protection (NEMA), front side			2