Metal Switch Medium Stroke, Switching Voltage up to 250 VAC



See below:

Approvals and Compliances

Description

- Assembly method: clip micro-switch into the saddle, secure switch using mounting nut
- Equipped with flat-pin plugs to permit fast connection

Unique Selling Proposition

- Attractive tactile feedback
- High quality materials
- Long life span

Characteristics

- Housing and actuator material: high-quality stainless steel
- Switching voltage from 30 VDC to 250 VAC, switching current from 0.1 A to 10 A
- IP-Protection: IP67 from front side to contact area, Micro-Switch is available in versions IP40 or IP67
- For use in harsh environments (see technical data)

References

Alternative: switch with latching function: MSM LA CS 19; MSM LA CS 22; MSM LA 19; MSM LA 22

Alternative: switch with backlighted illumination: MSM CS 16; MSM

CS 19; MSM CS 22; MSM LA CS 19; MSM LA CS 22

Alternative: double-pole switch: MSM DP 19; MSM DP 22; MSM DP 30

Weblinks

pdf data sheet, html datasheet, General Product Information, CAD-Drawings, Product News, Detailed request for product

Technical Data

Technical Data	
Electrical Data	
Switching Function	momentary
Number of Poles	SPDT
Impulse Withstand Voltage	4 kV MSM ST / MSM LE
(ESD)	
Micro Switch 5 A / 125 VAC	or 3 A / 250 VAC, IP40
Contact Material	Ag
Switching Voltage	max. 125 / 250 VAC
Switching Current	max. 5 / 3 A
Rated Switching Capacity	750 W
Lifetime	0.2 million actuations at Rated Swit-
	ching Capacity
Contact Resistance	< 30 mΩ
Insulation Resistance	> 100 MΩ
Duration of Bounce	< 5 ms
Micro Switch 0,1 A / 30 VDC	, IP40
Contact Material	Au
Switching Voltage	max. 30 VDC
Switching Current	max. 0.1 A
Rated Switching Capacity	3 W
Lifetime	0.2 million actuations at Rated Swit-
	ching Capacity
Contact Resistance	$<$ 50 m Ω
Insulation Resistance	$> 100 \text{ M}\Omega$
Duration of Bounce	< 5 ms
Micro Switch for Electrical F IP40)	Rating 10 A / 250 VAC (Protection Class
Contact Material	Ag
Switching Voltage	max. 250 VAC
Switching Voltage Switching Current	max. 250 VAC max. 10 A
Switching Voltage Switching Current Rated Switching Capacity	max. 250 VAC max. 10 A 2500 W
Switching Voltage Switching Current	max. 250 VAC max. 10 A
Switching Voltage Switching Current Rated Switching Capacity	max. 250 VAC max. 10 A 2500 W 0.05 million actuations at Rated Swit-
Switching Voltage Switching Current Rated Switching Capacity Lifetime Contact Resistance Insulation Resistance	max. 250 VAC max. 10 A 2500 W 0.05 million actuations at Rated Switching Capacity
Switching Voltage Switching Current Rated Switching Capacity Lifetime Contact Resistance Insulation Resistance Duration of Bounce	max. 250 VAC max. 10 A 2500 W 0.05 million actuations at Rated Switching Capacity $<$ 30 m Ω $>$ 100 M Ω $<$ 5 ms
Switching Voltage Switching Current Rated Switching Capacity Lifetime Contact Resistance Insulation Resistance Duration of Bounce Micro Switch 6 A / 250 VAC,	max. 250 VAC max. 10 A 2500 W 0.05 million actuations at Rated Switching Capacity $<$ 30 m Ω $>$ 100 M Ω $<$ 5 ms
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Switching Voltage Switching Current Rated Switching Capacity Lifetime Contact Resistance Insulation Resistance Duration of Bounce Micro Switch 6 A / 250 VAC, Switching Voltage Switching Current	max. 250 VAC max. 10 A 2500 W 0.05 million actuations at Rated Switching Capacity $<$ 30 m Ω $>$ 100 M Ω $<$ 5 ms
Switching Voltage Switching Current Rated Switching Capacity Lifetime Contact Resistance Insulation Resistance Duration of Bounce Micro Switch 6 A / 250 VAC, Switching Voltage	$ \begin{array}{l} \text{max. 250 VAC} \\ \text{max. 10 A} \\ \text{2500 W} \\ \text{0.05 million actuations at Rated Switching Capacity} \\ \text{< 30 m} \Omega \\ \text{> 100 M} \Omega \\ \text{< 5 ms} \\ \hline \text{IP67} \\ \text{max. 250 VAC} \\ \end{array} $
Switching Voltage Switching Current Rated Switching Capacity Lifetime Contact Resistance Insulation Resistance Duration of Bounce Micro Switch 6 A / 250 VAC, Switching Voltage Switching Current	$ \begin{array}{l} \text{max. 250 VAC} \\ \text{max. 10 A} \\ 2500 \text{ W} \\ \text{0.05 million actuations at Rated Switching Capacity} \\ < 30 \text{ m}\Omega \\ > 100 \text{ M}\Omega \\ < 5 \text{ ms} \\ \hline \textbf{IP67} \\ \text{max. 250 VAC} \\ \text{max. 5} \\ 1250 \text{ W} \\ \text{0.05 million actuations at Rated Switching Capacity} \\ \end{array} $
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Switching Voltage Switching Current Rated Switching Capacity Lifetime Contact Resistance Insulation Resistance Duration of Bounce Micro Switch 6 A / 250 VAC, Switching Voltage Switching Current Rated Switching Capacity Lifetime Micro Switch 0,1 A / 250 VAC	max. 250 VAC max. 10 A 2500 W 0.05 million actuations at Rated Switching Capacity < 30 mΩ > 100 MΩ < 5 ms IP67 max. 250 VAC max. 5 1250 W 0.05 million actuations at Rated Switching Capacity C, IP67 - on request
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Mechanical Data			
Actuating Force	4.5 N		
Actuating Travel	1.0 mm		
Lifetime	1.5 million actuations		
Shock Protection	IK 07		
Mounting screw torque Stain- less Steel Nut	max. 16 Nm		
Climatical Data			
Operating Temperature	-25 to 85°C		
Storage Temperature	-25 to 85°C		
Protection Class	IP67		
Switching Unit	IP40		
	IP67 optional		
Salt Spray Test (acc. to DIN 50021-SS)	24 h / 48 h / 96 h Residence Time		
Material			
Housings	Stainless Steel		
Actuator	Stainless Steel		
Seal Ring	NBR70		
Switcher Collet	PA		

Approvals and Compliances

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in Details about Approvals

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
DIN	Designed according to	DIN EN 61058-1	Switches for appliances. Part 1. General requirements
(UL)	Designed according to	UL 1054	UL standard for safety special-use switches

Application standards

Application standards where the product can be used

Organization	Design	Standard	Description
<u>IEC</u>	Designed for applications acc.	IEC/UL 62368-1	IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment.

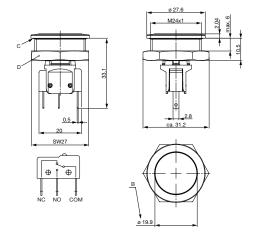
Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
ROHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
REACH	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

Dimension [mm]

MSM 24



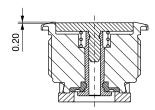
Legend

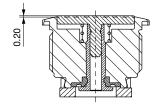
B = Actuating Area C = Sealing

D = Nut

Tolerance Range

Actuator Tolerance Range

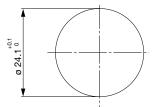




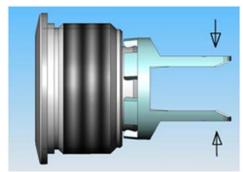
The mounting tolerance range of the actuator varies from 0.2 mm projection length and 0.2 mm short length to the housing edge. The slanting position of the actuator can range within this tolerance.

Dimension

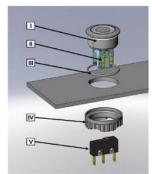
MSM 24



Assembly Instructions



During assembly, the protruding bars of the holder should not be pressed together.



I Housing II Flat Pin Terminal (Illumination) III Gasket IV Nut (Nut type see Dimensions) V Module Switching Contact

Installation Instruction:

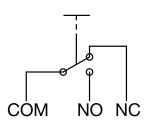
- 1.) Place the gasket accurately on the actuator housing. Then mount the actuator housing assembly into the panel.
- 2.) Tighten the screw nut according to the torque instructions.
- 3.) Clasp the module switching contact into the micro switch holder of the actuator housing.

Installation information:

- 1.) The power supply and the configuration of the flat pin terminals have to be installed correctly for the illumination and micro switch function.
- Insulate the terminals as required. Fully insulated plug-in sleeves are recommended.
 Installation instructions according to VDE-standard DIN VDE 0100-100 or alternatively IEC 60354 standard.

Diagrams

MSM ST



Order Index Lettering

Laser Marking			
001 = A	021 = U	041 = ÷	061 = EIN
002 = B	022 = V	042 = ₩	062 = AUS
003 = C	023 = W	043 = =	063 = AUF
004 = D	024 = X	044 = #	064 = AB
005 = E	025 = Y	045 = ↔	065 = ON
006 = F	026 = Z	046 = ‡	066 = OFF
007 = G	027 = 0	047 = →	067 = UP
008 = H	028 = 1	048 = ←	068 = DOWN
009 = I	029 = 2	049 = ↓	069 = HIGH
010 = J	030 = 3	050 = ↑	070 = LOW
011 = K	031 = 4	051 = %	071 = ON/OFF
012 = L	032 = 5	052 = √	072 = START
013 = M	033 = 6	053 = CTRL	073 = RESET
014 = N	034 = 7	054 = RETURN	074 = (1)
015 = O	035 = 8	055 = SHIFT	075 = ☆
016 = P	036 = 9	056 = LOCK	076 =△
017 = Q	037 =+	057 = STOP	077 =
018 = R	038 =-	058 = ENTER	
019 = S	039 =.	059 = BACK	
020 = T	040 = x	060 = LINE	

All Variants

IP Switching Unit	Switching Current	Switching Voltage	Illumination, LED	Housing Material, Torsion Protection	Actuator Material, Torsion Protection	Config. Code	Order Number
	[A]	[VAC/ VDC]					
IP40	100 mA	30 VDC	non-illuminated	Stainless Steel ,no	Stainless Steel ,no	MSM 24	1241.6641.1110000
IP40	5/3A	125 / 250 VAC	non-illuminated	Stainless Steel ,no	Stainless Steel ,no	MSM 24	1241.6641.1120000
IP40	10 A	125 / 250 VAC	non-illuminated	Stainless Steel ,no	Stainless Steel ,no	MSM 24	3-128-295

IP-Protection: IP67 from front side to contact area, Micro-Switch is available in versions IP40 or IP67, see Technical Data Micro-Switch

Variants with 6 A micro switch have IP67

The MOQ for standard laser lettering on standard variants is a packing unit.

Customer-specific versions available on request.

Special materials for use in salt and chlorinated environment on request.

The nut with gasket and micro switch are enclosed in the box.

Availability for all products can be searched real-time:https://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER

10 in box with insert or packed in air cushion bags Packaging unit



Accessories

Description



Power Supply Power Supply IP42 for LED- and Illumination applications indoor 90~264 VAC => 24 VDC 0.34 A 8 W

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Click to view products by Schurter manufacturer:

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8940K2012 LW1L-M1C10V-A LW1L-M1C70-A LW2L-A1C20M-GD LW2L-M1C20M-A 60324L M22-D-R-GB0/K11 M7E-HRN2
67021K512 67081K512X 701PB580 7199K101 810K12910 810KSV30B MML21EA2ADK MML21KA3ABK MML23KA3AC05K-001
MML23KW3AA01W 8418K2 8442K2 8442K3 8450K1 860K11911T01A 861901 861K11911T01A07 861K13810T00A14 861K13911
8646AB6X718UL 8646ABUL 9001KXRK 907AYY100 PMHD155A1 9533CD4+U574+U4922 95-414.000 99-450.837 99-453.837
PV3H2B0NN-341 1203MRA A22NZBGANGA A22NZBNANGA A22NZMPATRA A2PMA1X03EC56 A3A-5123-02 A3A-7140 A3A-7310 A3A-7340 A3U-TMW-A2C-5M A595 12037A2ULCSA ABD122N-B