

Metal Switch, Latching Action, Switching Voltage up to 125 VDC / 250 VAC

new



Newly available with bright illumination

See below:

Approvals and Compliances

Description

- Switch available in version: Standard (ST), with Lettering (LE), with area illumination (AI)
- Available with bright illumination
- Available with 12 A and 16 A switching current Assembly by mounting with nut and subsequent clipping of the switching element
- Equipped with flat-pin plugs to permit fast connection

Characteristics

- Housing material: high-quality stainless steel, actuator material: highly durable ceramic
- with or without surface backlighting in different colours
- Switching voltage up to 125 VDC respectively 250 VAC, switching current up to 16 A
- available with single-pole and double-pole switching system, switching status is easy to discern by looking at or feeling the resting position of the actuator
- For use in harsh environments (see technical data)

References

Alternative: switch with latching function: [MSM LA CS 19](#)

Alternative: Standard version [MSM LA CS 19](#); [MSM 16](#)

Alternative: switch with backlighted illumination: [MSM CS 19](#); [MSM CS 22](#); [MSM LA CS 19](#)

Alternative: Other diameter

Weblinks

[html data sheet](#), [General Product Information](#), [CAD-Drawings](#), [Product News](#), [Detailed request for product](#), [Video](#)

Technical Data

Electrical Data

Switching Function	N.O.
Number of Poles	1-pole and 2-pole
Supply Voltage	24 VDC Surface backlighting 5 VDC and 12 VDC variants on request (MOQ 500 pieces)
Impulse Withstand Voltage (ESD)	4 kV MSM LA CS ST
Switching Voltage	max. 250 VAC, 30 VDC (125 VDC at 0.5 A)
Switching Current	12 A AC / 16 A AC
Rated Switching Capacity	3000 W
Lifetime	0.05 million actuations (250 VAC / 8 A), 0.1 million actuations (125 VDC / 0,5 A), 0.02 million actuations (250 VAC / 16 A)
Contact Resistance	< 100 mΩ (12 VDC / 1 A)
Insulation Resistance	> 100 MΩ 500 VDC

Mechanical Data

Actuating Force	10 N
Actuating Travel	5.2 mm,
Lifetime	0.1 million actuations
Contact Gap	3 mm
Shock Protection	IK 07
Mounting screw torque Plastic Nut	max. 3.5 Nm
Mounting screw torque Stainless Steel Nut	max. 16 Nm

Climatical Data

Operating Temperature	-20 to +85 °C
Storage Temperature	-20 to +85 °C
Protection Class	IP64
Switching Unit	IP40
Salt Spray Test (acc. to DIN 50021-SS)	24 h / 48 h / 96 h Residence Time

Material

Housings	Stainless Steel
Actuator (disc, outside housing)	Ceramic
Seal Ring	NBR70
Switcher Collet	PA66 (UL94-V0 related to d ≥ 1.6 mm)
Intermediate Connector	PA66 (UL94-V0 related to d ≥ 1.6 mm)
Contact Pin Adapter	PA66 (UL94-V0 related to d ≥ 1.6 mm)

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.

Approvals

Approval Reference Type:

Approval Logo	Certification Body	Description
		Low Voltage Directive 2014/35/EU Low Voltage Directive 2014/35/EU
	UL	UL / CSA File Number (Marquardt): E41791
	DEMKO	DEMKO / ENEC File Number (Marquardt): ENEC-01365

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
	Designed according to	DIN EN 61058-1	Switches for appliances. Part 1. General requirements
	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
	Designed for applications acc.	IEC/UL 60950	IEC 60950-1 includes the basic requirements for the safety of information technology equipment.

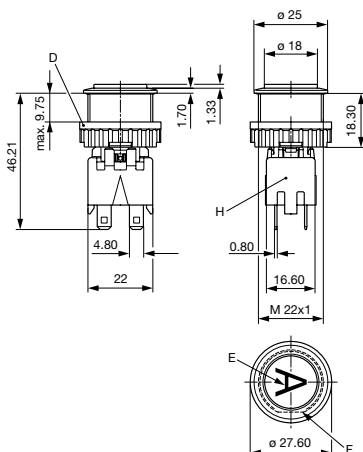
Compliances

The product complies with following Guide Lines

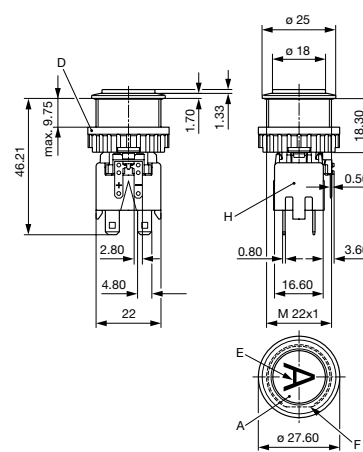
Identification	Details	Initiator	Description
	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

Dimension [mm]

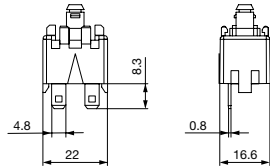
MSM 22 LA CS ST / double-pole



MSM 22 LA CS AI / double-pole



Switching Element single-pole with Push Button Holder



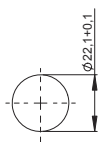
Legend

A = Illumination Area
 C = Width Across Flats
 D = Knurled Nut
 E = Lettering
 F = Anti-Rotation
 H = Switching Element

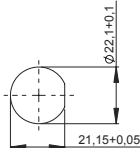
Dimension

MSM 22 LA CS (without torsion protection)

MSM 22 LA CS (with torsion protection)

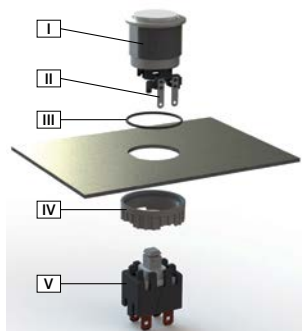


Drilling diagram



Drilling diagram

Assembly Instructions



I Housing

II Flat Pin Terminal (Illumination)

III Gasket

IV Nut (Nut type see Dimensions)

V Module Switching Contact

Installation Instruction:

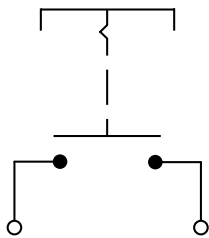
- 1.) Place the gasket accurately on the actuator housing. Then mount the actuator housing assembly into the panel.
- 2.) Tighten the screw nut according to the torque instructions.
- 3.) Clasp the module switching contact into the actuator housing.

Installation information:

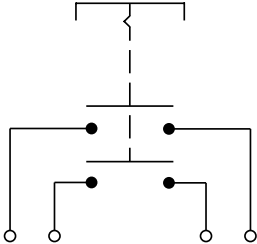
- 1.) The power supply and the configuration of the flat pin terminals have to be installed correctly for the illumination and micro switch function.
- 2.) Insulate the terminals as required. Fully insulated plug-in sleeves are recommended.
- 3.) Installation instructions according to VDE-standard DIN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

Diagrams

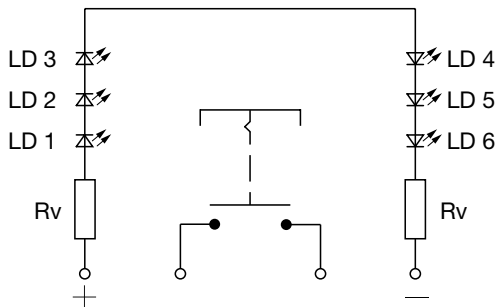
MSM LA CS ST / single-pole



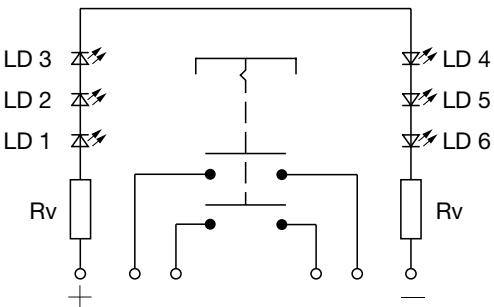
MSM LA CS ST / double-pole



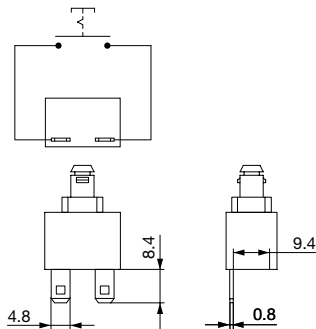
MSM LA CS AI / single-pole



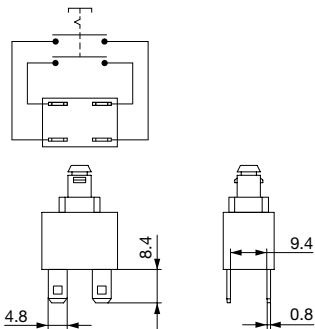
MSM LA CS AI / double-pole



Contact Layout single-pole



Contact Layout double-pole



Lettering

The last three digits in the order number define the lettering:

000	No Lettering
001-074	Standard Lettering
101-	Customized Lettering

Lettering Colour of Laser Lettering

Material	Lettering Colour
Ceramic	black Filled letters

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 = 
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

Diameter	Number of Poles	Switching Current	Illumination, LED	Torsion Protection Housing/Actuator	Config. Code	Order Number
[mm]		[A]				
22	1-pole	12	non-illuminated	yes / yes	MSM 22 LA CS ST	1241.7231.1110000
22	1-pole	12	Backlighted, red, 24 VDC	yes / yes	MSM 22 LA CS AI red	1241.7236.1111000
22	1-pole	12	Backlighted, green, 24 VDC	yes / yes	MSM 22 LA CS AI green	1241.7236.1112000
22	1-pole	12	Backlighted, yellow, 24 VDC	yes / yes	MSM 22 LA CS AI yellow	1241.7236.1113000
22	1-pole	12	Backlighted, white, 24 VDC	yes / yes	MSM 22 LA CS AI white	1241.7236.1115000
22	1-pole	12	Backlighted, orange, 24 VDC	yes / yes	MSM 22 LA CS AI orange	1241.7236.1117000
22	1-pole	12	Backlighted, bright red, 24 VDC	yes / yes	MSM 22 LA CS AI bright red	1241.8556
22	1-pole	12	Backlighted, bright green, 24 VDC	yes / yes	MSM 22 LA CS AI bright green	1241.8557
22	1-pole	12	Backlighted, bright blue, 24 VDC	yes / yes	MSM 22 LA CS AI bright blue	1241.8559
22	1-pole	12	Backlighted, bright white, 24 VDC	yes / yes	MSM 22 LA CS AI bright white	1241.8560
22	2-pole	12	non-illuminated	yes / yes	MSM 22 LA CS ST	1241.7231.1120000
22	2-pole	12	Backlighted, red, 24 VDC	yes / yes	MSM 22 LA CS AI red	1241.7236.1121000
22	2-pole	12	Backlighted, yellow, 24 VDC	yes / yes	MSM 22 LA CS AI yellow	1241.7236.1123000
22	2-pole	12	Backlighted, yellow, 24 VDC	yes / yes	MSM 22 LA CS AI yellow	1241.7236.1123075
22	2-pole	12	Backlighted, orange, 24 VDC	yes / yes	MSM 22 LA CS AI orange	1241.7236.1127000
22	2-pole	12	Backlighted, bright red, 24 VDC	yes / yes	MSM 22 LA CS AI bright red	1241.8562
22	2-pole	12	Backlighted, bright green, 24 VDC	yes / yes	MSM 22 LA CS AI bright green	1241.8563
22	2-pole	12	Backlighted, bright blue, 24 VDC	yes / yes	MSM 22 LA CS AI bright blue	1241.8565
22	2-pole	12	Backlighted, bright white, 24 VDC	yes / yes	MSM 22 LA CS AI bright white	1241.8566
22	1-pole	16	Backlighted, bright blue, 24 VDC	yes / yes	MSM 22 LA CS AI bright blue	3-101-029
22	1-pole	16	Backlighted, bright white, 24 VDC	yes / yes	MSM 22 LA CS AI bright white	3-101-030
22	1-pole	16	Backlighted, bright red, 24 VDC	yes / yes	MSM 22 LA CS AI bright red	3-101-032
22	1-pole	16	Backlighted, bright green, 24 VDC	yes / yes	MSM 22 LA CS AI bright green	3-101-033
22	2-pole	16	Backlighted, bright red, 24 VDC	yes / yes	MSM 22 LA CS AI bright red	3-101-031
22	2-pole	16	Backlighted, bright green, 24 VDC	yes / yes	MSM 22 LA CS AI bright green	3-101-039
22	2-pole	16	Backlighted, bright blue, 24 VDC	yes / yes	MSM 22 LA CS AI bright blue	3-101-040

Diameter	Number of Poles	Switching Current	Illumination, LED	Torsion Protection Housing/Actuator	Config. Code	Order Number
[mm]		[A]				
22	2-pole	16	Backlighted, bright white, 24 VDC	yes / yes	MSM 22 LA CS AI bright white	3-101-041

Legend:
Type:
MSMCS = Ceramic Surface
ST = Standard: not lettered
LE = Lettering: lettered
AI = BL = Full Surface Backlighting: Lettering possible (see Lettering, last 3 digits)

Customer-specific versions available on request.
Special materials for use in salt and chlorinated environment on request.
The MOQ for standard laser lettering on standard variants is 10 pieces.
5 VDC and 12 VDC variants on request (MOQ 500 pieces)
The nut with gasket and micro switch are enclosed in the box.

Most Popular.

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

Packaging unit 10 in box with insert



- Actuating elements in ESD safe packaging
- Screw nuts and sealing rings in a bag (enclosed in the box)
- Micro switches (enclosed in the box)

Accessories

Description



Power Supply

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



Installation Wrench MSM 22

Installation wrench