MSM LA CS 22

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



Newly available with bright illumination



Metal Switch with ceramic actuator
Illumination area
white



Metal Switch with ceramic actuator
Illumination area
red

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: Standard version
Alternative: switch with backlighted illumination: MSM CS 22
Alternative: Other diameter
Alternative: switch with latching function:

Weblinks

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

Technical Data

Electrical Data	
Switching Function	latching
Number of Poles	SPST, DPST
Supply Voltage	24 VDC Illumination area
Impulse Withstand Voltage (ESD)	2 kV with Ring Illumination
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	IK07
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	
Housing	Stainless Steel
Actuator (disc, outside housing)	Ceramics
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)
Plastic Nut	PA, UL94

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
IEC	Designed for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

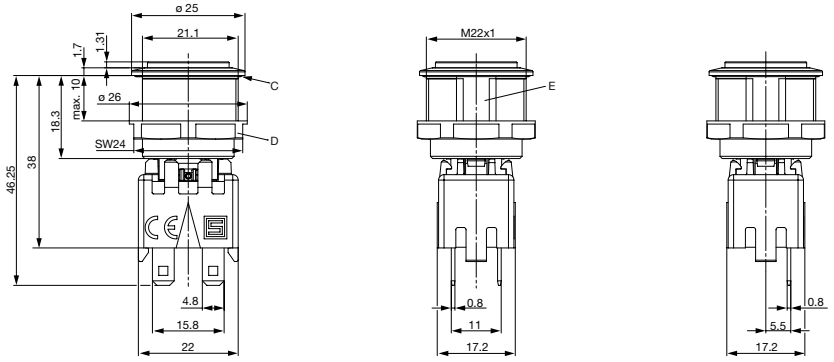
Compliances

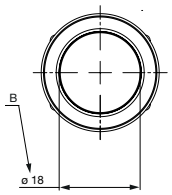
The product complies with following Guide Lines

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.

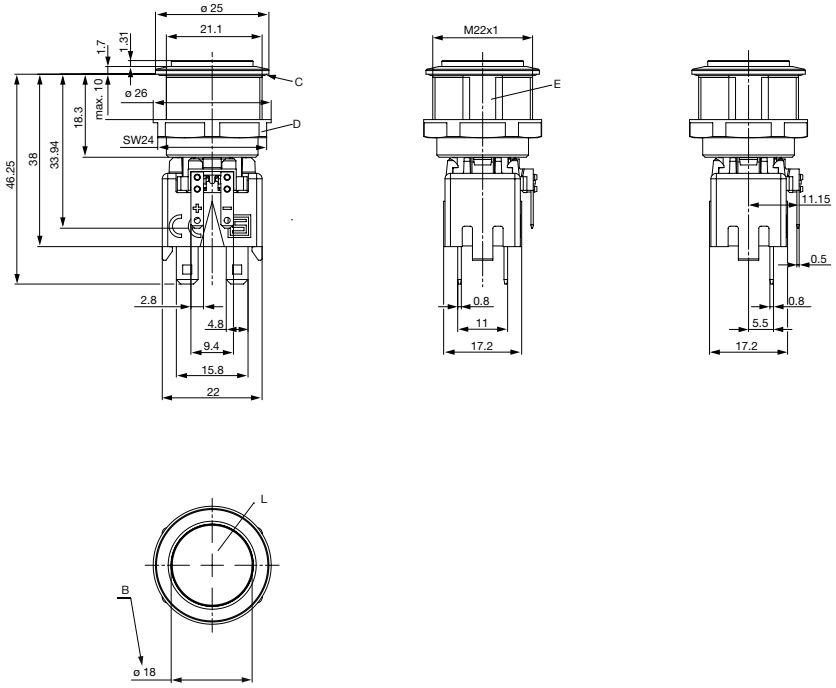
Dimension [mm]

MSM 22 LA CS ST / double-pole

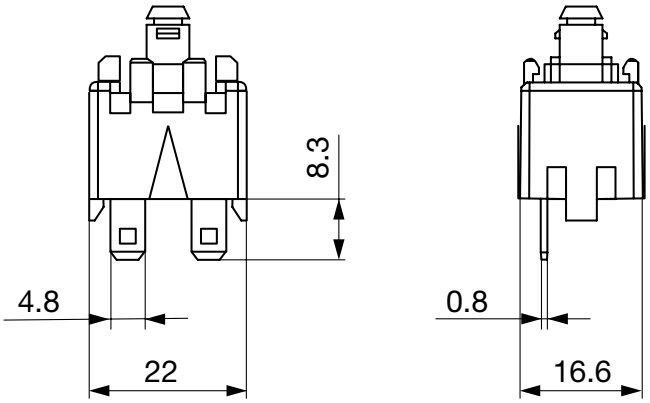




MSM 22 LA CS AI / double-pole



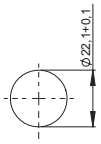
Switching Element single-pole with Push Button Holder



Legend
B = Actuating Area
C = Sealing
D = Nut
E = Anti-rotation protection
L = Illuminated area

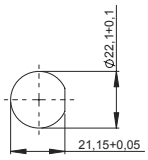
Dimension

MSM 22 LA CS (without torsion protection)



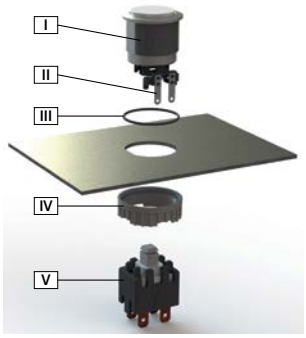
Drilling diagram

MSM 22 LA CS (with torsion protection)



Drilling diagram

Assembly Instructions

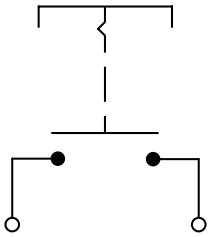


I Housing
II Flat Pin Terminal (Illumination)
III Gasket
IV Nut (Nut type see Dimensions)
V Module Switching Contact

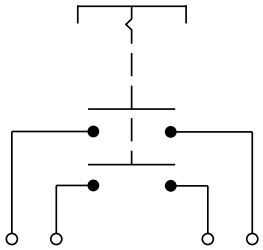
Installation Instruction:
1.) Place the gasket accurately on the actuator housing. Then mount the actuator housing assembly into the panel.
2.) Tighten the screw nut according to the torque instructions.
3.) Clasp the module switching contact into the actuator housing.
Installation information:
1.) The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

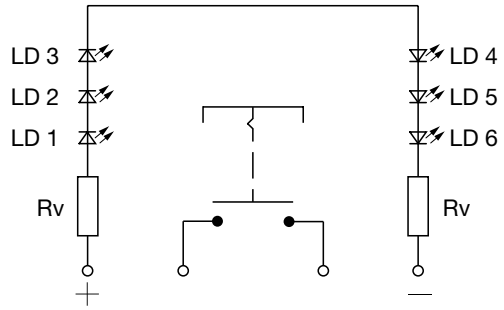
MSM LA CS ST / single-pole



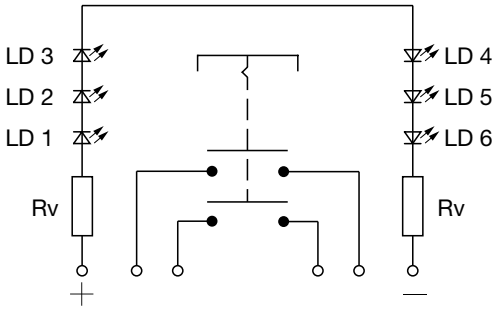
MSM LA CS ST / double-pole



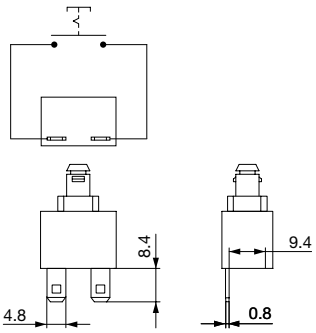
MSM LA CS AI / single-pole



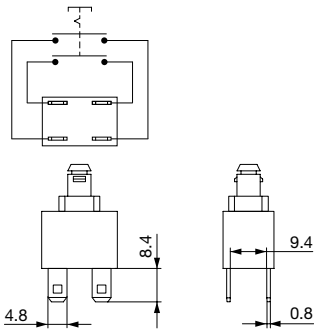
MSM LA CS AI / double-pole



Contact Layout single-pole



Contact Layout double-pole



Marking

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**	
Please note that the font size depends on the number of characters			

All Variants

Diameter	Switching Current	Switching Voltage	Illumination, LED	Housing Material	Torsion Protection Housing/Actuator	Electrical contact	Config. Code	Order Number
[mm]	[A]	[VAC/ VDC]						
22	12	250 VAC	Backlighted, red, 24 VDC	-	yes / yes	SPST	MSM 22 LA CS AI red	1241.8556
22	12	250 VAC	Backlighted, green, 24 VDC	-	yes / yes	SPST	MSM 22 LA CS AI green	1241.8557
22	12	250 VAC	Backlighted, blue, 24 VDC	-	yes / yes	SPST	MSM 22 LA CS AI blue	1241.8559
22	12	250 VAC	Backlighted, white, 24 VDC	-	yes / yes	SPST	MSM 22 LA CS AI white	1241.8560
22	12	250 VAC	non-illuminated	Stainless Steel	yes / yes	SPST	MSM 22 LA CS Pcs	1241.7231.1110000
22	12	250 VAC	Backlighted, red, 24 VDC	-	yes / yes	DPST	MSM 22 LA CS AI red	1241.8562
22	12	250 VAC	Backlighted, green, 24 VDC	-	yes / yes	SPST	MSM 22 LA CS AI green	1241.8563
22	12	250 VAC	Backlighted, blue, 24 VDC	-	yes / yes	DPST	MSM 22 LA CS AI blue	1241.8565
22	12	250 VAC	Backlighted, white, 24 VDC	-	yes / yes	DPST	MSM 22 LA CS AI white	1241.8566
22	12	250 VAC	non-illuminated	Stainless Steel	yes / yes	DPST	MSM 22 LA CS Pcs	1241.7231.1120000
22	16	250 VAC	Backlighted, blue, 24 VDC	-	yes / yes	SPST	MSM 22 LA CS AI blue	3-101-029
22	16	250 VAC	Backlighted, white, 24 VDC	-	yes / yes	SPST	MSM 22 LA CS AI white	3-101-030
22	16	250 VAC	Backlighted, red, 24 VDC	-	yes / yes	SPST	MSM 22 LA CS AI red	3-101-031
22	16	250 VAC	Backlighted, red, 24 VDC	-	yes / yes	DPST	MSM 22 LA CS AI red	3-101-032
22	16	250 VAC	Backlighted, green, 24 VDC	-	yes / yes	SPST	MSM 22 LA CS AI green	3-101-033
22	16	250 VAC	Backlighted, green, 24 VDC	-	yes / yes	DPST	MSM 22 LA CS AI green	3-101-039
22	16	250 VAC	Backlighted, blue, 24 VDC	-	yes / yes	DPST	MSM 22 LA CS AI blue	3-101-040
22	16	250 VAC	Backlighted, white, 24 VDC	-	yes / yes	DPST	MSM 22 LA CS AI 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)

IP65 degree of protection front side contact areadegree of protection rear side contact area IP40 or IP67 optional -> see Technical Data Micro Switch

Customer-specific versions available on request.
Special materials for use in salt and chlorinated environment on request.

Diameter	Switching Current	Switching Voltage	Illumination, LED	Housing Material	Torsion Protection Housing/Actuator	Electrical contact	Config. Code	Order Number
[mm]	[A]	[VAC/ VDC]						

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

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 (enclosd 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

05.01.2022

The specifications, descriptions and illustrations indicated in this document are based on current information. All content is subject to modifications and amendments. Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability and test each product selected for their own applications.