

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



Metal Switch with ceramic actuator  
 Surface backlighting  
 white



Metal Switch with ceramic actuator  
 Surface backlighting  
 red



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: Standard version [MSM 16](#)
- Alternative: double-pole switch: [MSM DP 19](#); [MSM DP 22](#); [MSM DP 30](#)
- Alternative: Other diameter [MSM LA CS 22](#)
- 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 Surface backlighting
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	< 100mΩ (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. 4.5 Nm
Mounting screw torque Stainless Steel Nut	max. 12 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

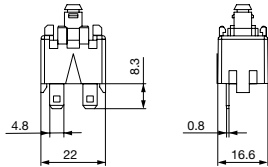
**Material**

Housings	Stainless Steel
Actuator (disc, outside housing)	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)

**Approvals and Compliances**



Switching Element single-pole with Push Button Holder



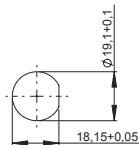
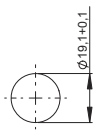
**Legend**

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

**Dimension**

MSM 19 LA CS (without torsion protection)

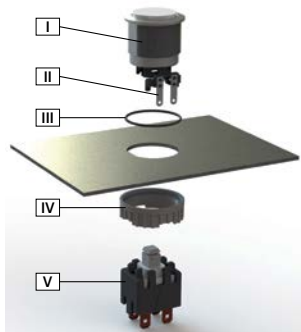
MSM 19 LA CS (with torsion protection)



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:

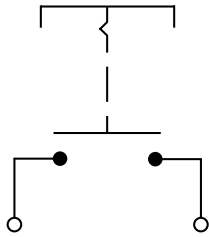
- 1.) Place the gasket accurately on the actuator housing. Then mount the actuator housing assembly into the panel.
- 2.) Tighten the screw nut according to the torque instructions.
- 3.) Clasp the module switching contact into the actuator housing.

Installation information:

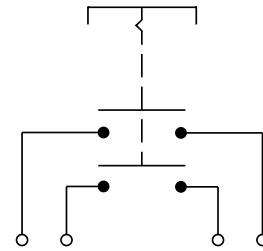
- 1.) The power supply and the configuration of the flat pin terminals have to be installed correctly for the illumination and micro switch function.
- 2.) Insulate the terminals as required. Fully insulated plug-in sleeves are recommended.
- 3.) Installation instructions according to VDE-standard DIN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

## Diagrams

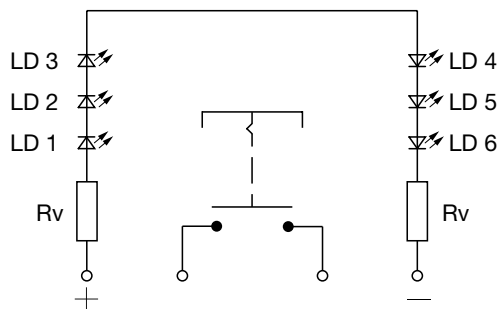
MSM LA CS ST / single-pole



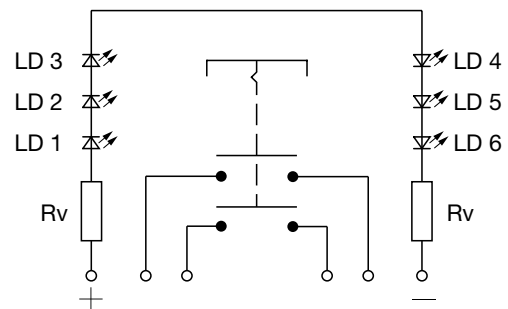
MSM LA CS ST / double-pole



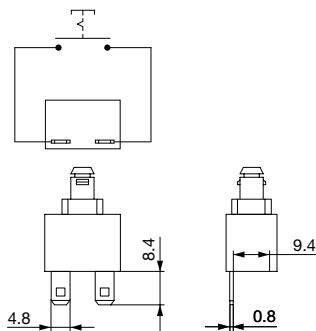
MSM LA CS AI / single-pole



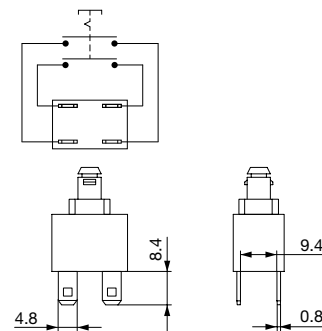
MSM LA CS AI / double-pole



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]				
19	DPST	12	non-illuminated	yes / yes	MSM 19 LA CS Pcs	1241.7221.1120000
19	DPST	12	Backlighted, red, 24 VDC	yes / yes	MSM 19 LA CS Al red	1241.8550
19	DPST	12	Backlighted, green, 24 VDC	yes / yes	MSM 19 LA CS Al green	1241.8551
19	DPST	12	Backlighted, yellow, 24 VDC	yes / yes	MSM 19 LA CS Al yellow	1241.8552
19	DPST	12	Backlighted, blue, 24 VDC	yes / yes	MSM 19 LA CS Al blue	1241.8553
19	DPST	12	Backlighted, white, 24 VDC	yes / yes	MSM 19 LA CS Al white	1241.8554
19	DPST	12	Backlighted, orange, 24 VDC	yes / yes	MSM 19 LA CS Al orange	1241.8555
19	SPST	12	non-illuminated	yes / yes	MSM 19 LA CS Pcs	1241.7221.1110000
19	SPST	12	Backlighted, red, 24 VDC	yes / yes	MSM 19 LA CS Al red	1241.8544
19	SPST	12	Backlighted, green, 24 VDC	yes / yes	MSM 19 LA CS Al green	1241.8545
19	SPST	12	Backlighted, yellow, 24 VDC	yes / yes	MSM 19 LA CS Al yellow	1241.8546
19	SPST	12	Backlighted, blue, 24 VDC	yes / yes	MSM 19 LA CS Al blue	1241.8547
19	SPST	12	Backlighted, white, 24 VDC	yes / yes	MSM 19 LA CS Al white	1241.8548
19	SPST	12	Backlighted, orange, 24 VDC	yes / yes	MSM 19 LA CS Al orange	1241.8549
19	DPST	16	Backlighted, blue, 24 VDC	yes / yes	MSM 19 LA CS Al blue	3-101-010
19	DPST	16	Backlighted, white, 24 VDC	yes / yes	MSM 19 LA CS Al white	3-101-011
19	DPST	16	Backlighted, red, 24 VDC	yes / yes	MSM 19 LA CS Al red	3-101-023
19	DPST	16	Backlighted, green, 24 VDC	yes / yes	MSM 19 LA CS Al green	3-101-024
19	SPST	16	Backlighted, red, 24 VDC	yes / yes	MSM 19 LA CS Al red	3-101-005
19	SPST	16	Backlighted, green, 24 VDC	yes / yes	MSM 19 LA CS Al green	3-101-007
19	SPST	16	Backlighted, blue, 24 VDC	yes / yes	MSM 19 LA CS Al blue	3-101-009
19	SPST	16	Backlighted, white, 24 VDC	yes / yes	MSM 19 LA CS Al white	3-101-022

Legend:

Type:

MSMCS = Ceramic Surface

ST = Standard: not lettered

LE = Lettering: lettered

Al = BL = Full Surface Backlighting: Lettering possible (see Lettering, last 3 digits)

Diameter	Number of Poles	Switching Current	Illumination, LED	Torsion Protection Housing/Actuator	Config. Code	Order Number
[mm]		[A]				

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 a packing unit.

5 VDC and 12 VDC RI 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

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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