

Metal Switch Short Stroke



MCS 19 painted green



MCS 19 actuator painted red



MCS 19 stainless steel



**Description**

- Momentary action switch available in version Standard, with Point Illumination, Lettering, varnished in different colours  
Assembly by mounting with nut
- Pin connections, Pins with Soldering Aid or Clip for Pins

**Approvals**

- EMC: EMC directive 2004/108/EWG

**Characteristics**

- Housing and actuator material types: zinc die-cast with nickel plating or stainless steel
- Wide range of materials, colours, lettering, colours of illumination
- Switching voltage 48 VDC, switching current 125 mA
- Zinc die-cast for housing and actuator
  - For indoor use, no illumination, no lettering
- Stainless Steel for actuator
  - Optional point illumination and laser lettering with standard or customer-specific symbols
- Stainless Steel for housing and actuator
  - for use in harsh environments outdoors
- Varnished Version
  - Colour adjustments to customer housings possible, as standard:  
Signal colors red, green and yellow, optional: housing or actuator varnishing according to provided color specifications  
the varnished actuators are sealed by transparent lacquer after the laser lettering

**Weblinks**

[html-datasheet](#), [General Product Information](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [e-Shop](#), [CAD-Drawings](#), [Product News](#), [Detailed request for product](#)

## Technical Data

### Electrical Data

Supply Voltage LED operating data are listed in separate table

### Contact Material Silver

Switching Voltage min. 4 VDC , max. 48 VDC  
 Switching Current max. 125 mA  
 Rated Switching Capacity 1.2 W  
 Lifetime 1 million actuations at Rated Switching Capacity  
 Contact Resistance < 50 mΩ, < 150 mΩ after lifetime  
 Insulation Resistance > 100 MΩ  
 Duration of Bounce < 5 ms

### Contact Material Gold

Switching Voltage min. 50 mVDC, max. 24 VDC  
 Switching Current max. 80 mA  
 Rated Switching Capacity 0.36 W  
 Lifetime 1 million actuations at Rated Switching Capacity  
 Contact Resistance < 50 mΩ, < 150 mΩ after lifetime  
 Insulation Resistance > 100 MΩ  
 Duration of Bounce < 5 ms

### Mechanical Data

Actuating Force 3.7 N  
 Actuating Travel 0.4 mm,  
 Lifetime 1 million actuations  
 Shock Protection IK 05 ,  
 Tightening Torque 0.4 Nm with Sealing Ring, 1.5 Nm without Sealing Ring

### Climatical Data

Operating Temperature -20 to +60 °C  
 Storage Temperature -20 to +60 °C  
 IP-Protection IP 65 Front Side Contact Area, IP 40 Front Side mechanical,  
 Salt Spray Test (acc. to DIN 50021-SS) 24 h / 48 h / 96 h Residence Time

### Other Data

Contact Material Ag / Au

### Soldering Data

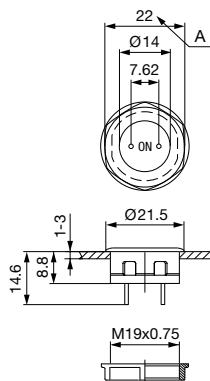
Tinning 260 °C / 2 sec according to DIN IEC 60068-2-20  
 Solderability 260 °C / 2 sec (IEC 68-2-20 Test Ta Method 1)  
 Resistance to Soldering Heat 260 °C / 5 sec (IEC 68-2-20 Test Tb Method 1A)

### Material

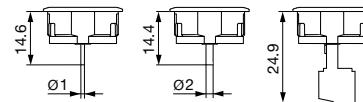
Housing Stainless Steel 1.4305 / Zinc Die Casting Nickel Plated  
 Actuator unlettered Zinc Die Casting Nickel Plated  
 Actuator lettered Stainless Steel  
 Contact CuZn37 2,5 μm Ag  
 Snap Dome X 12 CrNi 177 gold plated  
 Socket PA

## Dimension

MCS 19

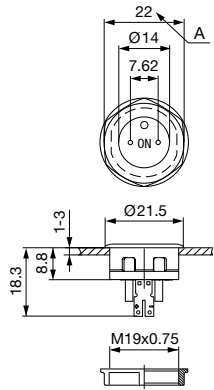


## MCS 19 Connection Versions



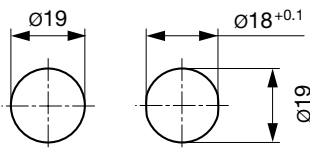
Drawing 1: Pins  
 Drawing 2: Pins with Soldering Aid  
 Drawing 3: Clip for Pins

MCS 19 PI



Legend:  
Zinc Die Casting Version:  
x = 1 mm without sealing ring  
x = 2 mm with sealing ring  
Stainless Steel Version:  
x = 1 mm without sealing ring  
x = 1,7 mm with sealing ring

Dimension



Drilling diagram

Diagrams

MCS 19 PI Bi-colour-LED



**Point Illumination**

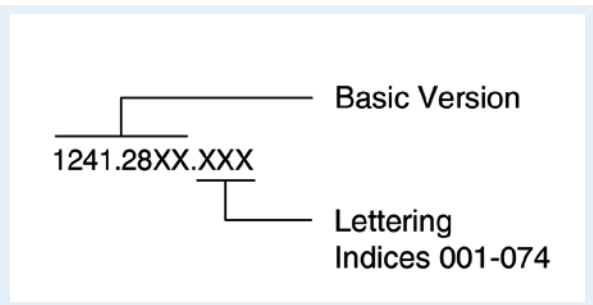
| Operating Data | Forward Current max. | Forward Voltage at 10 mA | Forward Voltage max. |
|----------------|----------------------|--------------------------|----------------------|
| LED red        | 30 mA                | 1.9 VDC                  | 3.0 VDC              |
| LED green      | 30 mA                | 2.1 VDC                  | 3.0 VDC              |
| LED yellow     | 30 mA                | 2.1 VDC                  | 3.0 VDC              |
| LED blue       | 20 mA                | 3.8 VDC                  | 4.5 VDC              |
| LED red/green  | 25 mA                | 2.0 VDC                  | 2.5 VDC              |

Attention: Switches are delivered without series resistor.

**Lettering**

Die letzten drei Ziffern der Bestellnummer geben die Beschriftung an:

|         |                                |
|---------|--------------------------------|
| 000     | keine Beschriftung             |
| 001-074 | Standardbeschriftung           |
| 101-    | kundenspezifische Beschriftung |

**Bestellbeispiel für Beschriftung****Lettering Colour of Laser Lettering**

| Material        | Lettering Colour |                |
|-----------------|------------------|----------------|
| Stainless Steel | black            | Filled letters |

For further Lettering details see also weblink:

**Order Index Lettering**

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

All Variants

| Terminal                | Kontakte | Housing Material | Actuator Material | Lettering         | Illumination       | Color LED   | Config. Code                | Bestellnummer |
|-------------------------|----------|------------------|-------------------|-------------------|--------------------|-------------|-----------------------------|---------------|
| Pins                    | Ag       | Zinc Diecasting  | Zinc Diecasting   | without Lettering | non-illuminated    | -           | MCS 19 Zinc                 | 1241.2800     |
| Pins with Soldering Aid | Ag       | Zinc Diecasting  | Zinc Diecasting   | without Lettering | non-illuminated    | -           | MCS 19 Zinc                 | 1241.2801     |
| Clip for Pins           | Ag       | Zinc Diecasting  | Zinc Diecasting   | without Lettering | non-illuminated    | -           | MCS 19 Zinc                 | 1241.2802     |
| Pins                    | Ag       | Zinc Diecasting  | Stainless Steel   | without Lettering | non-illuminated    | -           | MCS 19 Zinc/Stainless Steel | 1241.2805     |
| Pins                    | Ag       | Zinc Diecasting  | Stainless Steel   | with Lettering    | non-illuminated    | -           | MCS 19 Zinc/Stainless Steel | 1241.2805.057 |
| Pins with Soldering Aid | Ag       | Zinc Diecasting  | Stainless Steel   | without Lettering | non-illuminated    | -           | MCS 19 Zinc/Stainless Steel | 1241.2806     |
| Clip for Pins           | Ag       | Zinc Diecasting  | Stainless Steel   | without Lettering | non-illuminated    | -           | MCS 19 Zinc/Stainless Steel | 1241.2807     |
| Pins                    | Au       | Zinc Diecasting  | Zinc Diecasting   | without Lettering | non-illuminated    | -           | MCS 19 Zinc                 | 1241.2810     |
| Clip for Pins           | Au       | Zinc Diecasting  | Zinc Diecasting   | without Lettering | non-illuminated    | -           | MCS 19 Zinc                 | 1241.2812     |
| Pins                    | Au       | Zinc Diecasting  | Stainless Steel   | without Lettering | non-illuminated    | -           | MCS 19 Zinc/Stainless Steel | 1241.2815     |
| Clip for Pins           | Au       | Zinc Diecasting  | Stainless Steel   | without Lettering | non-illuminated    | -           | MCS 19 Zinc/Stainless Steel | 1241.2817     |
| Pins                    | Ag       | Stainless Steel  | Stainless Steel   | without Lettering | non-illuminated    | -           | MCS 19 Stainless Steel      | 1241.2820     |
| Pins with Soldering Aid | Ag       | Stainless Steel  | Stainless Steel   | without Lettering | non-illuminated    | -           | MCS 19 Stainless Steel      | 1241.2821     |
| Clip for Pins           | Ag       | Stainless Steel  | Stainless Steel   | without Lettering | non-illuminated    | -           | MCS 19 Stainless Steel      | 1241.2822     |
| Clip for Pins           | Au       | Stainless Steel  | Stainless Steel   | without Lettering | non-illuminated    | -           | MCS 19 Stainless Steel      | 1241.2827     |
| Pins with Soldering Aid | Ag       | Stainless Steel  | Stainless Steel   | without Lettering | Point Illumination | red         | MCS 19 PI                   | 1241.2830     |
| Pins with Soldering Aid | Ag       | Stainless Steel  | Stainless Steel   | without Lettering | Point Illumination | green       | MCS 19 PI                   | 1241.2831     |
| Pins with Soldering Aid | Ag       | Stainless Steel  | Stainless Steel   | without Lettering | Point Illumination | yellow      | MCS 19 PI                   | 1241.2832     |
| Pins with Soldering Aid | Ag       | Stainless Steel  | Stainless Steel   | without Lettering | Point Illumination | red / green | MCS 19 PI                   | 1241.2833     |
| Pins with Soldering Aid | Ag       | Zinc Diecasting  | Stainless Steel   | without Lettering | Point Illumination | red         | MCS 19 PI                   | 1241.2855     |
| Pins with Soldering Aid | Ag       | Zinc Diecasting  | Stainless Steel   | without Lettering | Point Illumination | green       | MCS 19 PI                   | 1241.2856     |
| Pins with Soldering Aid | Ag       | Zinc Diecasting  | Stainless Steel   | without Lettering | Point Illumination | yellow      | MCS 19 PI                   | 1241.2857     |
| Pins with Soldering Aid | Ag       | Zinc Diecasting  | Stainless Steel   | without Lettering | Point Illumination | red / green | MCS 19 PI                   | 1241.2858     |
| Pins with Soldering Aid | Ag       | Zinc Diecasting  | Stainless Steel   | without Lettering | Point Illumination | blue        | MCS 19 PI                   | 1241.2859     |

Order numbers MCS 19, varnished versions (Colour of the switch housing or the actuator): 1241.28xx.A => A = 1 (yellow) / 3 (red) / 5 (green)

xx = 70 standard pins, 71 Soldering aid, 72 Screw connection with varnished housing die cast / actuator die cast

xx = 73 standard pins, 74 soldering aid, 75 screw connection with varnished housing die cast / actuator stainless steel

xx = 77 standard pins, 78 soldering aid, 79 screw connection with varnished actuator stainless steel / housing die cast

Order numbers MCS 19, illuminated versions (Point Illumination): 1241.2876.A.XXX.B and respectively 1241.2880.A.XXX.B => B = 1 (red) / 2 (green) / 3 (yellow) / 4 (blue) / 5 (red-green)

For Lettering versions see tables "Lettering" and "Order Index Lettering" to determine the symbol

Plastic nut with gasket are enclosed in the box.

Most Popular.

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

**Packaging unit** 20 in box with insert (20 pcs, with connecting terminal 10 pcs.)



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



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

**Accessories**

**Description**



Connecting Terminal MCS 19  
Connecting Terminal

# Mouser Electronics

Authorized Distributor

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## Schurter:

[1241.2858](#) [1241.2856](#) [1241.2857](#) [1241.2805.071](#) [1241.2806.071](#) [1241.2807.071](#) [1241.2807.106](#) [1241.2812](#)  
[1241.2815.071](#) [1241.2817.071](#) [1241.2855.071](#) [1241.2856.071](#) [1241.2857.071](#) [1241.2858.071](#) [1241.2873.3](#)  
[1241.2874.3](#) [1241.2875.3](#) [1241.2877.3](#) [1241.2878.3](#) [1241.2878.5](#) [1241.2879.3](#) [1241.2806](#) [1241.2806.183](#)  
[1241.2856.186](#) [1241.2858.151](#) [1241.2878.1](#) [1241.2806.164](#) [1241.281](#) [1241.282](#)