

### Metal Switch Short Stroke



### Approvals and Compliances

#### 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

#### 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
- IEC/UL 60950
- 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 (see technical data)
- 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](#), [CAD-Drawings](#), [Product News](#), [Detailed request for product](#)

**Technical Data****Electrical Data**

Supply Voltage	LED operating data are listed in separate table
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**Contact Material Silver**

Switching Voltage	min. 4 VDC , max. 48 VDC24
Switching Current	max. 125 mA
Rated Switching Capacity	1.2 W

Lifetime	1 million actuations at Rated Switching Capacity
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Contact Resistance	< 50mΩ, < 150 mΩ after lifetime
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Insulation Resistance	> 100 MΩ
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Duration of Bounce	< 5 ms
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**Contact Material Gold**

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

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

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

Contact Material	Ag / Au
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**Soldering Data**

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

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

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

**Approvals**

Approval Reference Type:

Approval Logo	Certification Body	Description
	EU	EMC: EMC directive 2004/108/EWG

**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.

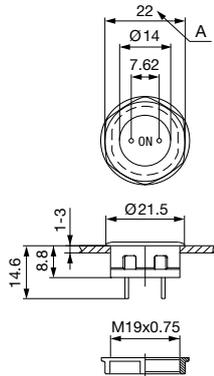
**Compliances**

The product complies with following Guide Lines

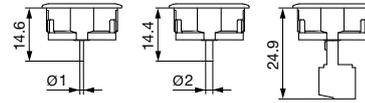
Identification	Details	Initiator	Description
	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

Dimension [mm]

MCS 19

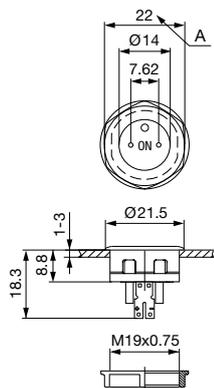


MCS 19 Connection Versions



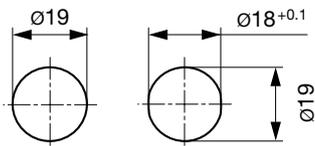
Drawing 1: Pins  
 Drawing 2: Pins with Soldering Aid  
 Drawing 3: Clip for Pins

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

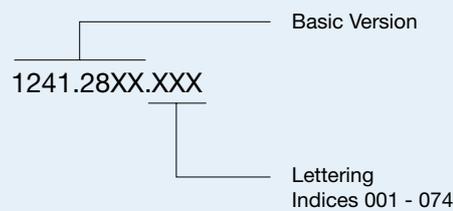
Attention: Switches are delivered without series resistor.

Lettering

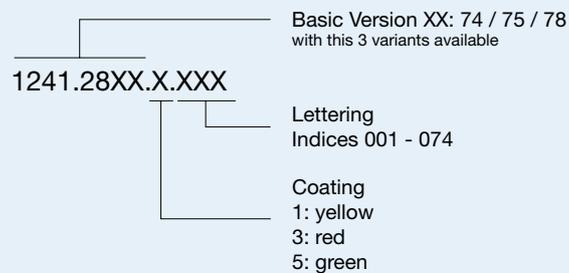
The last three digits in the order number define the lettering:

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

Order example for labeling



Order example labeling for varnished variants



Lettering Colour of Laser Lettering

Material	Lettering Colour	Filled letters
Stainless Steel	black	

### 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>	077 = 
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>	

Switches and buttons are freely configurable. The variety of marking and lighting options, as well as the different materials and surface shapes are customized executable. Please send us your specific requirement. [Detailed request for product](#)

### All Variants

Terminal	Kontakte	Housing Material	Actuator Material	Varnish	Illumination	Color LED	Config. Code	Bestellnummer
Pins	Ag	Zinc Diecasting	Zinc Diecasting	-	non-illuminated	-	MCS 19 Zinc	<a href="#">1241.2800</a>
Pins with Soldering Aid	Ag	Zinc Diecasting	Zinc Diecasting	-	non-illuminated	-	MCS 19 Zinc	<a href="#">1241.2801</a>
Clip for Pins	Ag	Zinc Diecasting	Zinc Diecasting	-	non-illuminated	-	MCS 19 Zinc	<a href="#">1241.2802</a>
Pins	Ag	Zinc Diecasting	Stainless Steel	-	non-illuminated	-	MCS 19 Zinc/Stainless Steel	<a href="#">1241.2805</a>
Pins	Ag	Zinc Diecasting	Stainless Steel	-	non-illuminated	-	MCS 19 Zinc/Stainless Steel	<a href="#">1241.2805.057</a>
Pins with Soldering Aid	Ag	Zinc Diecasting	Stainless Steel	-	non-illuminated	-	MCS 19 Zinc/Stainless Steel	<a href="#">1241.2806</a>
Clip for Pins	Ag	Zinc Diecasting	Stainless Steel	-	non-illuminated	-	MCS 19 Zinc/Stainless Steel	<a href="#">1241.2807</a>
Pins	Au	Zinc Diecasting	Zinc Diecasting	-	non-illuminated	-	MCS 19 Zinc	<a href="#">1241.2810</a>
Clip for Pins	Au	Zinc Diecasting	Zinc Diecasting	-	non-illuminated	-	MCS 19 Zinc	<a href="#">1241.2812</a>
Pins	Au	Zinc Diecasting	Stainless Steel	-	non-illuminated	-	MCS 19 Zinc/Stainless Steel	<a href="#">1241.2815</a>
Clip for Pins	Au	Zinc Diecasting	Stainless Steel	-	non-illuminated	-	MCS 19 Zinc/Stainless Steel	<a href="#">1241.2817</a>
Pins	Ag	Stainless Steel	Stainless Steel	-	non-illuminated	-	MCS 19 Stainless Steel	<a href="#">1241.2820</a>
Pins with Soldering Aid	Ag	Stainless Steel	Stainless Steel	-	non-illuminated	-	MCS 19 Stainless Steel	<a href="#">1241.2821</a>
Clip for Pins	Ag	Stainless Steel	Stainless Steel	-	non-illuminated	-	MCS 19 Stainless Steel	<a href="#">1241.2822</a>
Clip for Pins	Au	Stainless Steel	Stainless Steel	-	non-illuminated	-	MCS 19 Stainless Steel	<a href="#">1241.2827</a>
Pins with Soldering Aid	Ag	Stainless Steel	Stainless Steel	-	Point Illumination	red	MCS 19 PI	<a href="#">1241.2830</a>
Pins with Soldering Aid	Ag	Stainless Steel	Stainless Steel	-	Point Illumination	green	MCS 19 PI	<a href="#">1241.2831</a>
Pins with Soldering Aid	Ag	Stainless Steel	Stainless Steel	-	Point Illumination	yellow	MCS 19 PI	<a href="#">1241.2832</a>

Terminal	Kontakte	Housing Material	Actuator Material	Varnish	Illumination	Color LED	Config. Code	Bestellnummer
Pins with Soldering Aid	Ag	Stainless Steel	Stainless Steel	-	Point Illumination	red / green	MCS 19 PI	1241.2833
Pins with Soldering Aid	Ag	Zinc Diecasting	Stainless Steel	-	Point Illumination	red	MCS 19 PI	1241.2855
Pins with Soldering Aid	Ag	Zinc Diecasting	Stainless Steel	-	Point Illumination	green	MCS 19 PI	1241.2856
Pins with Soldering Aid	Ag	Zinc Diecasting	Stainless Steel	-	Point Illumination	yellow	MCS 19 PI	1241.2857
Pins with Soldering Aid	Ag	Zinc Diecasting	Stainless Steel	-	Point Illumination	red / green	MCS 19 PI	1241.2858
Pins with Soldering Aid	Ag	Zinc Diecasting	Stainless Steel	-	Point Illumination	blue	MCS 19 PI	1241.2859
Pins with Soldering Aid	Ag	Zinc Diecasting	Stainless Steel	Housing green	non-illuminated	-	MCS 19 Zinc/Stainless Steel	1241.2874.5
Clip for Pins	Ag	Zinc Diecasting	Stainless Steel	Housing yellow	non-illuminated	-	MCS 19 Zinc/Stainless Steel	1241.2875.1
Pins with Soldering Aid	Ag	Zinc Diecasting	Stainless Steel	Actuator red	non-illuminated	-	MCS 19 Zinc/Stainless Steel	1241.2878.3

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

Nut with gasket 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** 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