

Metal Switch Short Stroke



non-illuminated  
 Actuator stainless steel



Point Illumination  
 red / green  
 Actuator stainless steel



non-illuminated  
 Actuator zinc die-cast

See below:  
[Approvals and Compliances](#)

**Description**

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

**Unique Selling Proposition**

- Very low mounting depth
- High ingress protection IP67
- Resistant against vandalism
- Long lifetime

**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 max. 48 VDC, switching current max. 125 mA
- Zinc die-cast for housing and actuator  
 With or without illumination, no lettering
- Stainless Steel for actuator  
 Optional point illumination and optional laser lettering with standard or customer-specific symbols

**Weblinks**

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

**Technical Data**

**Electrical Data**

Switching Function	N.O.
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	< 50mΩ, < 150 mΩ after lifetime
Insulation Resistance	> 100 MΩ
Duration of Bounce	< 1 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	< 50mΩ, < 150 mΩ after lifetime
Insulation Resistance	> 100 MΩ
Duration of Bounce	< 1 ms

**Mechanical Data**

Actuating Force	Max. 5 N
Actuating Travel	Max. 0.4 mm
Lifetime	1 million actuations
Shock Protection	IK 06
Mounting screw 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
Protection Class	IP67 with O-Ring
Salt Spray Test (acc. to DIN 50021-SS)	24 h / 48 h / 96 h Residence Time

**Other Data**

Contact Material	Ag / Au
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**Soldering Data**

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

**Material**

Housings	Zinc Die Casting Nickel Plated
Actuator unlettered	Zinc Die Casting Nickel Plated
Actuator lettered	Stainless Steel 1.4301
Contact	CuZn37 2,5 µm Ag
Snap Dome	X 12 CrNi 177 gold plated
Socket	PA

**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.

## 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.

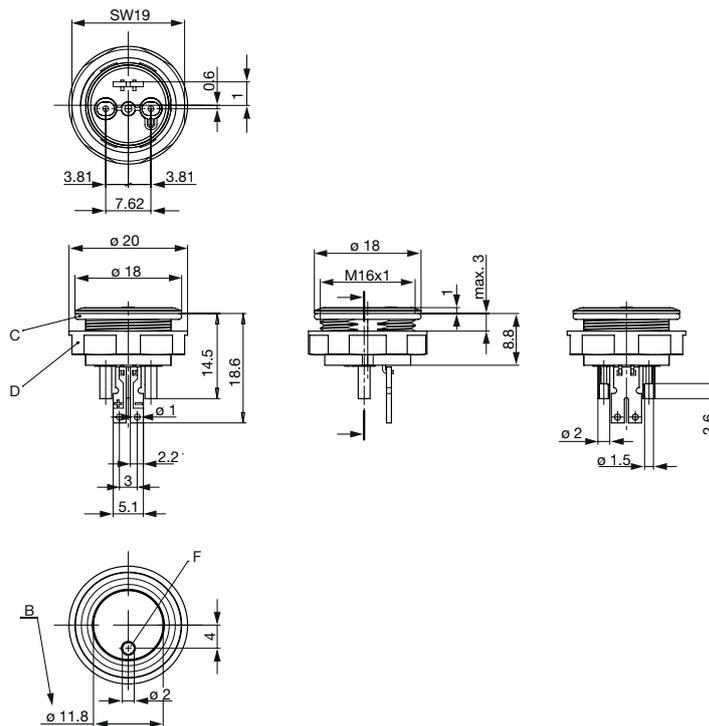
## Compliances

The product complies with following Guide Lines

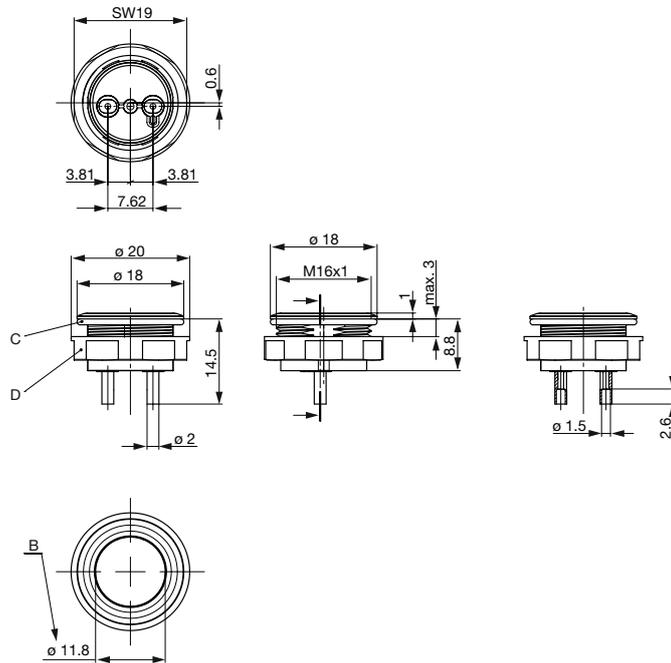
Identification	Details	Initiator	Description
	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

## Dimension [mm]

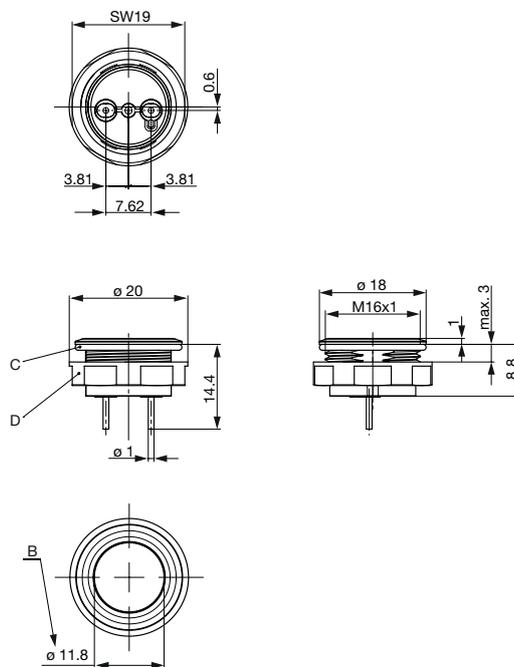
MCS 16 PI



MCS 16 with soldering aid



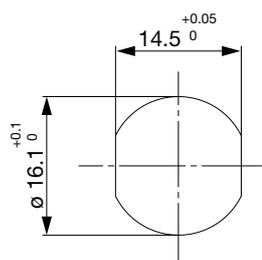
MCS 16 with pins



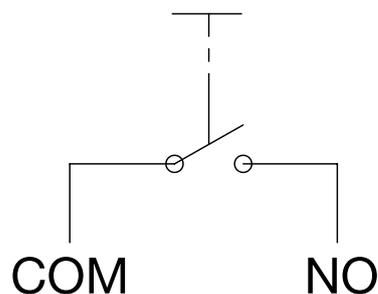
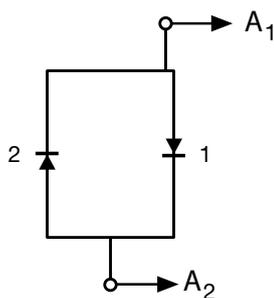
**Legend**

- B = Actuating Area
- C = Sealing
- D = Nut
- F = Point illumination

**Dimension**



**Diagrams**



- 1. Illumination color
- 2. Illumination color

A1 + and A2 - = illumination color 1  
 A1 - and A2 + = illumination color 2

**Point Illumination**

Operating Data	Forward Current max.	Forward Voltage at 10 mA	Forward Voltage max.
LED Colour 1: red/ Colour 2: green	25 mA	2.0 VDC	2.5 VDC

Attention: Switches are delivered without series resistor.

**Lettering Colour of Laser Lettering**

Material	Lettering Colour
Stainless Steel	black Filled letters

### 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>	

### All Variants

Terminal	Kontakte	Housing Material	Actuator Material	Varnish	Illumination	Color LED	Config. Code	Bestellnummer
Pins	Au	Zinc Diecasting	Zinc Diecasting	-	non-illuminated	-	MCS 16	<a href="#">3-109-081</a>
Pins with Soldering Aid	Ag	Zinc Diecasting	Zinc Diecasting	-	Point Illumination	red / green	MCS 16	<a href="#">3-109-091</a>
Pins	Ag	Zinc Diecasting	Zinc Diecasting	-	non-illuminated	-	MCS 16	<a href="#">3-109-092</a>
Pins with Soldering Aid	Ag	Zinc Diecasting	Zinc Diecasting	-	non-illuminated	-	MCS 16	<a href="#">3-109-095</a>
Pins with Soldering Aid	Ag	Zinc Diecasting	Stainless Steel	-	non-illuminated	-	MCS 16	<a href="#">3-109-096</a>
Pins with Soldering Aid	Ag	Zinc Diecasting	Stainless Steel	-	Point Illumination	red / green	MCS 16	<a href="#">3-109-100</a>

Für beschriftete Varianten siehe Tabelle "Bestell-Indizes Beschriftung" zur Bestimmung des Symbols

Nut with gasket are enclosed in the box.

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



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

## Accessories

### Description



Connecting Terminal MCS  
Connecting Terminal