Metal Switch Short Stroke



MCS 19 painted green



MCS 19 actuator painted red



MCS 19 stainless steel

RoHS COMPLIANT

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 lacqueur 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

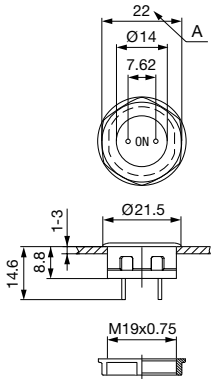
Technical Data

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

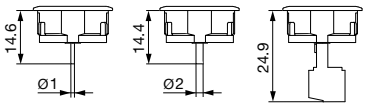
Mechanical Data	
Actuating Force	3.7 N
Actuating Travel	0.4 mm,
Lifetime	1 million actuations
Shock Protection	IK 05 ,
Tightening Torque	0.4 Nm with Sealing Ring, 1.5 Nm without Sealing Ring
Climatical Data	
Operating Temperature	-20 to +60 °C
Storage Temperature	-20 to +60 °C
IP-Protection	IP 65 Front 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

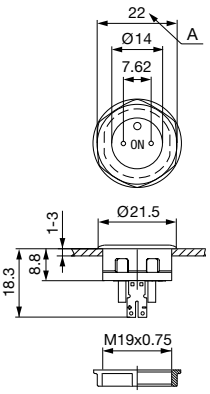


MCS 19 Connection Versions



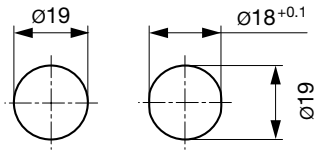
Drawing 1: Pins
Drawing 2: Pins with Soldering Aid
Drawing 3: Clip for Pins

MCS 19 PI



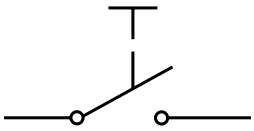
Legend:
Zinc Die Casting Version:
x = 1 mm without sealing ring
x = 2 mm with sealing ring
Stainless Steel Version:
x = 1 mm without sealing ring
x = 1,7 mm with sealing ring

Dimension

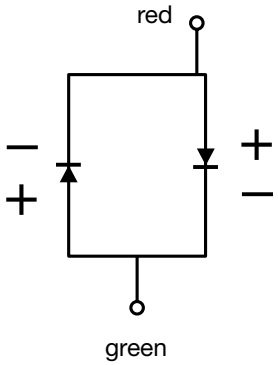


Drilling diagram

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.			

[nicht konfiguriert]:
element_name:Beschriftung_MCS_19_
ES: id:170327

Lettering

Die letzten drei	
000	keine Beschriftung
001-074	Standardbeschrif-
101-	kundenspezifische

Bestellbeispiel

Lettering Colour of Laser Lettering

Material	Lettering Colour	
Stainless Steel	black	Filled letters

For further Lettering details see also weblink:

General Product Information

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**	
018 = **R**	038 = **-**	058 = **ENTER**	
019 = **S**	039 = **.**	059 = **BACK**	
020 = **T**	040 = x	060 = **LINE**	

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 Solder-ring 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 Solder-ring 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 Solde-ring 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 Solde-ring Aid	Ag	Stainless Steel	Stainless Steel	without Lettering	Point Illumination	red	MCS 19 PI	1241.2830
Pins with Solde-ring Aid	Ag	Stainless Steel	Stainless Steel	without Lettering	Point Illumination	green	MCS 19 PI	1241.2831
Pins with Solde-ring Aid	Ag	Stainless Steel	Stainless Steel	without Lettering	Point Illumination	red / green	MCS 19 PI	1241.2833
Pins with Solde-ring Aid	Ag	Zinc Diecasting	Stainless Steel	without Lettering	Point Illumination	red	MCS 19 PI	1241.2855
Pins with Solde-ring Aid	Ag	Zinc Diecasting	Stainless Steel	without Lettering	Point Illumination	green	MCS 19 PI	1241.2856
Pins with Solde-ring Aid	Ag	Zinc Diecasting	Stainless Steel	without Lettering	Point Illumination	yellow	MCS 19 PI	1241.2857
Pins with Solde-ring Aid	Ag	Zinc Diecasting	Stainless Steel	without Lettering	Point Illumination	red / green	MCS 19 PI	1241.2858
Pins with Solde-ring Aid	Ag	Zinc Diecasting	Stainless Steel	without Lettering	Point Illumination	blue	MCS 19 PIPI	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/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 (enclosd in the box)



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

Accessories

	Description
	Connecting Terminal MCS 19 Connecting Terminal

14.01.2015

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.