MSM CS 19

Metal Switch with Ceramic Actuator, Switching Voltage up to 30 VDC / 250 VAC

See below:
Approvals and Compliances

Description

- Momentary action switch available in version: Standard (ST), with Lettering (LE), with Backlighting (BL)
- Single color or multicolor illumination
- Choice from 7 colors for multicolor variants Assembly method: clip micro-switch into the saddle, secure switch using mounting nut
- Equipped with flat-pin plugs to permit fast connection

Unique Selling Proposition

- Attractive tactile feedback
- High quality materials
- Long life span
- Single color or homogeneous multicolor illumination

Characteristics

- Housing material: high-quality stainless steel, actuator material: highly durable ceramic
- Variety of design options regarding size, colour, illumination, connection or lettering
- Switching voltage from 30 VDC to 250 VAC, switching current from 0.1 A to 10 A
- Backlighting optional, this means the complete actuator surface is fully illuminated
- IP-Protection: IP 65 from front side to contact area, Micro-Switch is available in versions IP 40 or IP 67, moving actuator is rated IP 40 to frontside
- for use in harsh environments (see technical data)

References

Alternative: Standard version MSM CS 22
Alternative: double-pole switch:
Alternative: switch with latching function: MSM LA 19
Alternative: Other diameter
Alternative: switch with ring illumination: MSM 16; MSM 19; MSM 22; MSM 30

Weblinks

html-datasheet, General Product Information, CAD-Drawings, Product News, Detailed request for product, Video

Technical Data

Electrical Data	
Switching Function	N.O. / N.C.
Number of Poles	1-pole
Supply Voltage	24 / 12 / 5 VDC Surface backlighting
Micro Switch 5 A / 125 VAC or 3 A / 250 VAC, IP40	
Contact Material	Ag
Switching Voltage	max. 125 / 250 VAC
Switching Current	max. 5 / 3 A
Rated Switching Capacity	750 W
Lifetime	0.2 million actuations at Rated Switching Capacity
Contact Resistance	< 30 mΩ
Insulation Resistance	> 100 MΩ
Duration of Bounce	< 5 ms
Micro Switch 0,1 A / 30 VDC, IP40	
Contact Material	Au
Switching Voltage	max. 30 VDC
Switching Current	max. 0.1 A
Rated Switching Capacity	3 W
Lifetime	0.2 million actuations at Rated Switching Capacity
Contact Resistance	< 50 mΩ
Insulation Resistance	> 100 MΩ
Duration of Bounce	< 5 ms
Micro Switch for Electrical Rating 10 A / 250 VAC (Protection Class IP40)	
Contact Material	Ag
Switching Voltage	max. 250 VAC
Switching Current	max. 10 A
Rated Switching Capacity	2500 W
Lifetime	0.05 million actuations at Rated Switching Capacity
Contact Resistance	< 30 mΩ
Insulation Resistance	> 100 MΩ
Duration of Bounce	< 5 ms
Micro Switch 5 A / 250 VAC, IP67	
Switching Voltage	max. 250 VAC
Switching Current	max. 5
Rated Switching Capacity	1250 W
Lifetime	0.05 million actuations at Rated Switching Capacity
Micro Switch 0,1 A / 250 VAC, IP67 - on request	
Switching Voltage	max. 250 VAC
Switching Current	max. 0.1
Rated Switching Capacity	25 W
Lifetime	0.05 million actuations at Rated Switching Capacity
Micro Switch 10 A / 250 VAC, IP67 - on request	
Switching Voltage	max. 250 VAC
Switching Current	max. 10 A
Rated Switching Capacity	2500 W
Lifetime	0.01 million actuations at Rated Switching Capacity

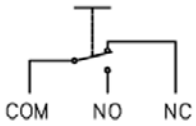
Mechanical Data	
Actuating Force	4.5 N
Actuating Travel	1.0 mm,
Lifetime	1.5 million actuations
Shock Protection	IK 07
Tightening Torque Plastic Nut	max. 4.5 Nm
Tightening Torque Stainless Steel Nut	max. 12 Nm
Climatical Data	
Operating Temperature	-25 to +85 °C
Storage Temperature	-25 to +85 °C
IP Protection Class	IP 65
Switching Unit	IP 40
	IP 67 optional
Salt Spray Test (acc. to DIN 50021-SS)	24 h / 48 h / 96 h Residence Time
Material	
Housings	Stainless Steel
Actuator	Ceramic (Zirconium Dioxide)
Seal Ring	NBR70
Switcher Collet	PA

Approvals and Compliances

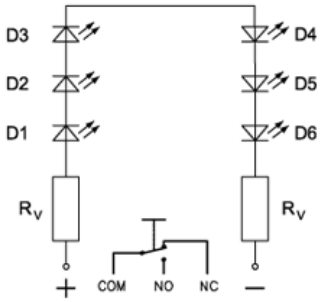
Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in Details about Approvals

Diagrams

MSM CS ST / MSM CS LE

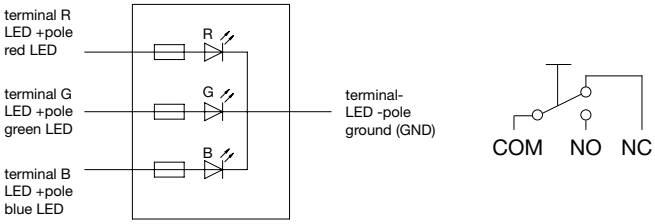


MSM CS BL Single color



MSM RI / 24 V Multicolor

terminal assignment with resistors for 24 VDC



Lighting type	Active terminal R) ●	Active terminal G) ●	Active terminal B) ●	Resulting Color
Multicolor Singlecolor	x			Red ●
Multicolor Singlecolor		x		Green ●
Multicolor Singlecolor			x	Blue ●
Multicolor RGB Additive 2	x	x		Yellow ●
Multicolor RGB Additive 2	x		x	Magenta ●
Multicolor RGB Additive 2		x	x	Cyan ●
Multicolor RGB Additive 3	x	x	x	White ○

Illumination options for Multicolor

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