

Product manual

Vandal-proof MSM switch

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Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten

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1 PRODUCT DESCRIPTION

Both, the housing and the actuator of the vandal-proof MSM switch are made of high-quality stainless steel. By applying this robust and weather-resistant material, the switch is particularly suitable for the use in harsh environments. The MSM is available with mounting diameters of 16, 19, 22 and 30 mm. Different types of contact cover a range of permissible switching voltages from 5 to 250 V AC, switching currents are permissible from 0.1 to 10 Ampere. The MSM is equipped with flat-pin plugs to permit fast connection. The cables are plugged onto the micro switch which is subsequently plugged onto the previously screwed-in switch. Point and ring-illuminated versions are available for applications at night or as an optical status display. For the mounting diameter 19, 22 and 30 the MSM is also available as a double-pole version. The MSM DP is equipped with two separated switching contacts which are available as normally open, normally closed or as change-over.

2 TECHNICAL DATA AND DIMENSIONAL DRAWINGS

2.1 Technical Data

Micro Switch for Electrical Rating (Protection Class IP 40)	0.1 A 30 VDC	5 A 125 VAC	3 A 250 VAC	10 A 250 VAC
Electrical Data				
Contact Material	gold	silver		silver
Switching Voltage max. (VAC) (VDC)	30	125 / 250		250
Switching Current max. (A)	0.1	5 / 3		10
Rated Braking Capacity (W)	3	1250		2500
Lifetime ¹⁾ (at Rated Braking Capacity)	200,000	200,000		50,000
Lifetime (160mA at 48VDC)		1,500,000		
Initial Contact Resistance, new (mΩ)	< 50	< 30		< 30
Insulation Resistance (IEC 512-2) (MΩ)	> 100	> 100		> 100
Contact Bounce Time (ms)	< 5	< 5		< 5

- 1) *The electrical lifetime according to ENEC or UL approbation can vary, depending on the corresponding micro switch, under the lifetime indicated above. The type and license numbers for the individual micro switches can be found in "point 6 approvals".*

Micro Switch for Electrical Rating (Protection Class IP 67)	0.1 A 250 VAC	5 A 250 VAC	10 A 250 VAC
Electrical Data			
Switching Voltage max. (VAC)	250	250	250
Switching Current max. (A)	0.1	5	10
Rated Braking Capacity (W)	25	1500	2500
Lifetime ¹⁾ (at Rated Braking Capacity)	50,000	50,000	10,000

Itally written types on request

- 1) *The electrical lifetime according to ENEC or UL approbation can vary, depending on the corresponding micro switch, under the lifetime indicated above. The type and license numbers for the individual micro switches can be found in "point 6 approvals".*

Mechanical Data		
Actuating Force (single-pole) (N)		4.5
Actuating Force (double-pole) (N)		5.0
Actuating Travel (mm)		0.8
Lifetime (Actuations)		1,500,000
Shock Resistance DIN EN 50102 Mounting Diameter 16 mm (IK)		06
Shock Resistance DIN EN 50102 Mounting Diameter 19, 22, 30 mm (IK)		07
Climatical Data		
Operating/Storage Temperature (°C)		- 25 to + 85
Degree of Protection Front side (IP)		67

Ring Illumination		
Supply Voltage Ring Illumination (VDC)		24

Other supply voltages on request

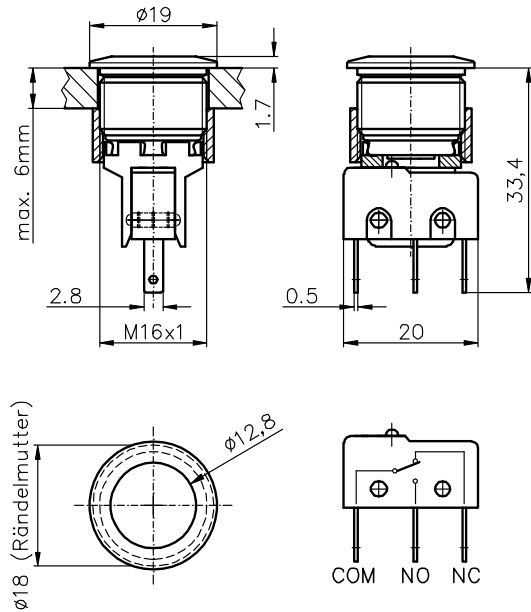
<u>Point Illumination</u>	Attention: Parts are delivered without multiplier.
Characteristics red LED Point Illumination	Forward Current max. 40 mA Forward Voltage at 10 mA = 2.0 VDC Forward Voltage max. = 2.5 VDC
Characteristics green LED Point Illumination	Forward Current max. 40 mA Forward Voltage at 10 mA = 2.0 VDC Forward Voltage max. = 2.5 VDC
Characteristics blue LED Point Illumination	Forward Current max. 20 mA Forward Voltage at 10 mA = 3.2 VDC Forward Voltage max. = 3.7 VDC

<u>Material</u>	
Component	Material
Housing	Stainless Steel 1.4305
Actuator	Stainless Steel 1.4305
Light Conductor (Point Illumination)	PC
Illuminated Ring (Ring Illumination)	PA Blend
Gasket	NBR70
Switcher Collet	PA66 Blend
Switcher Collet (double-pole)	PA66 Blend
Intermediate Connector non-illuminated (double-pole)	PA66 Blend
Intermediate Connector illuminated (double-pole)	PA66 Blend
Switcher Adapter (double-pole)	PA66 Blend

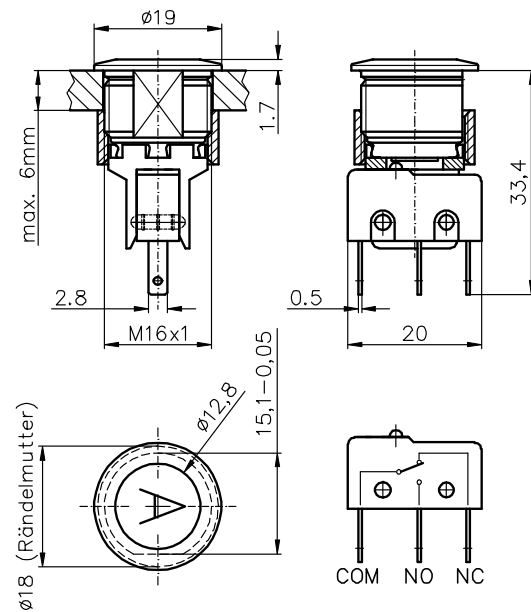
2.2 Component Dimensions for single-pole configuration

2.2.1 Component Dimensions MSM 16 (single-pole)

MSM 16 ST



MSM 16 LE

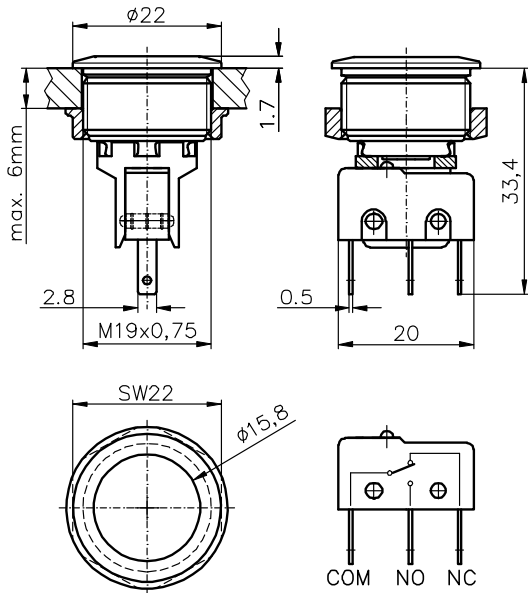


Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten

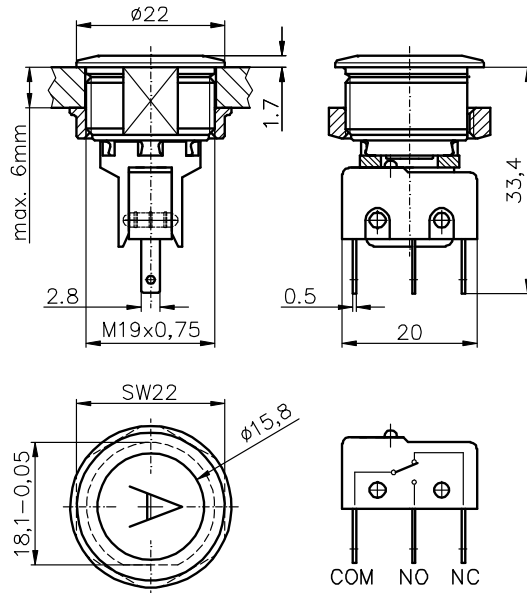
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2.2.2 Component Dimensions MSM 19 (single-pole)

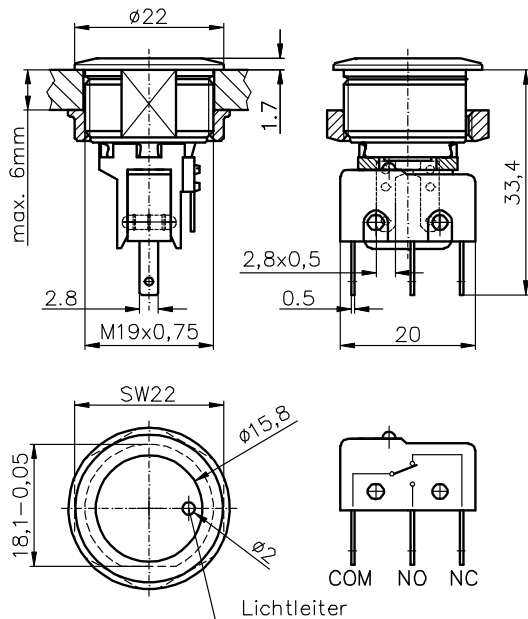
MSM 19 ST



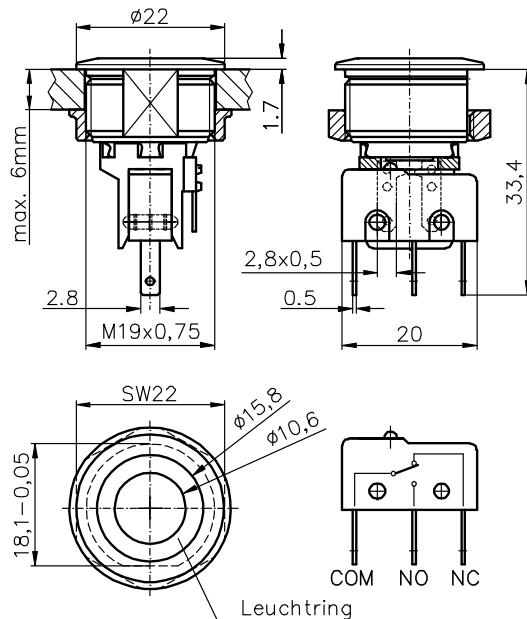
MSM 19 LE



MSM 19 PI



MSM 19 RI

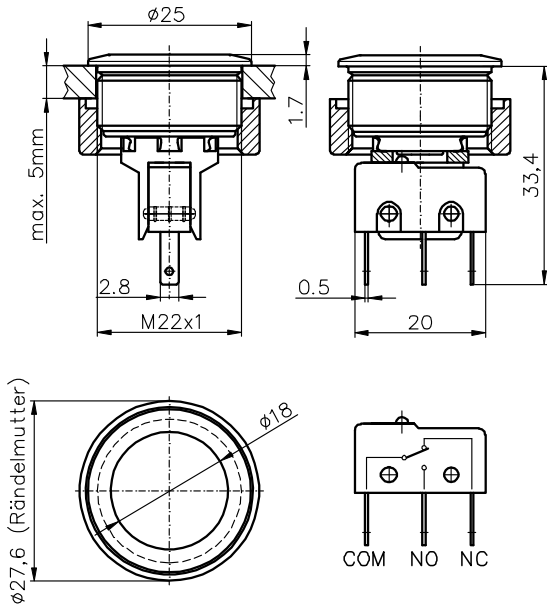


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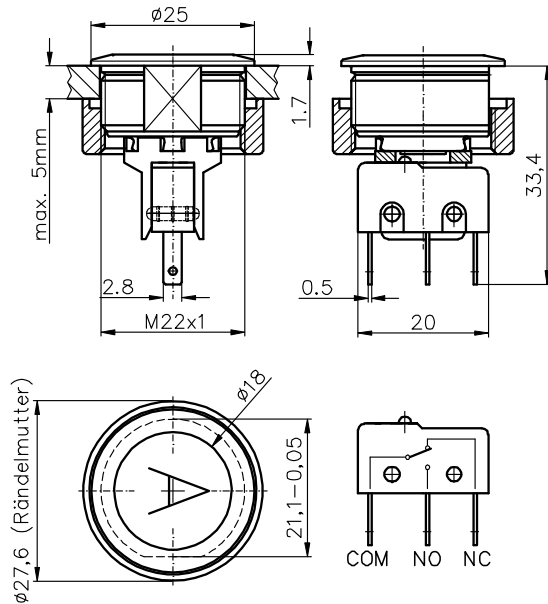
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2.2.3 Component dimensions MSM 22 (single-pole)

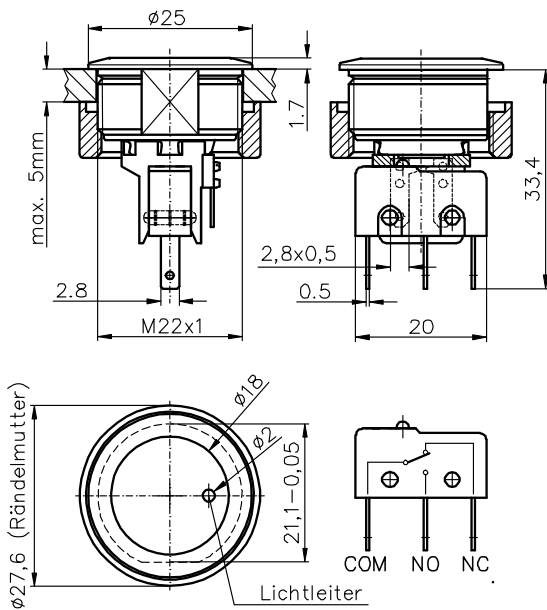
MSM 22 ST



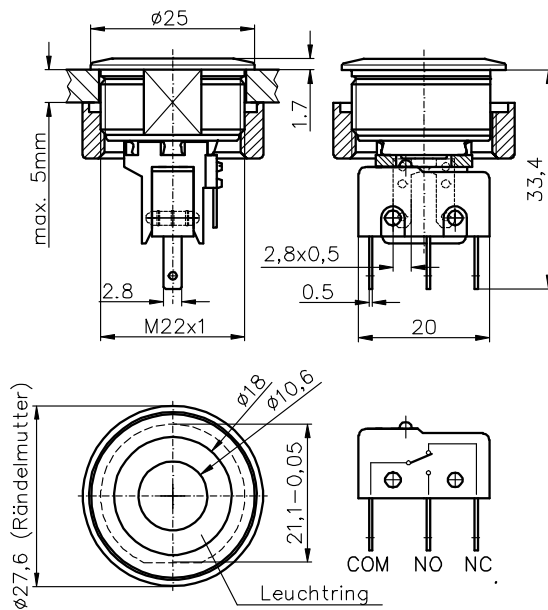
MSM 22 LE



MSM 22 PI



MSM 22 RI

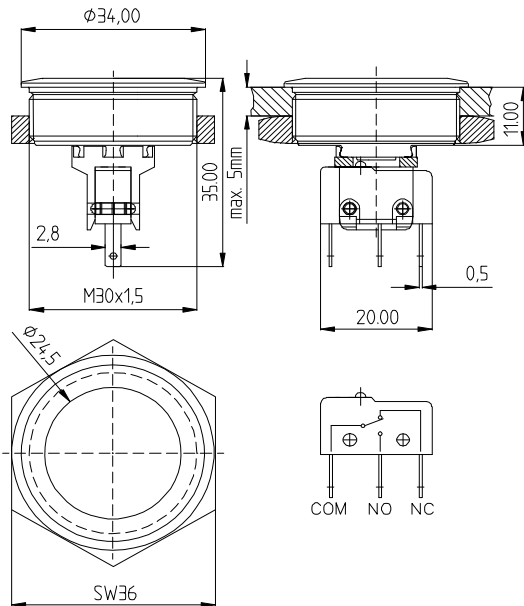


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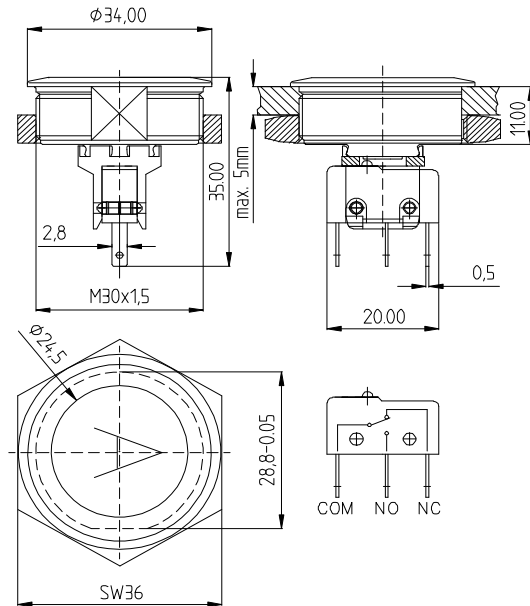
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2.2.4 Component dimensions MSM 30 (single-pole)

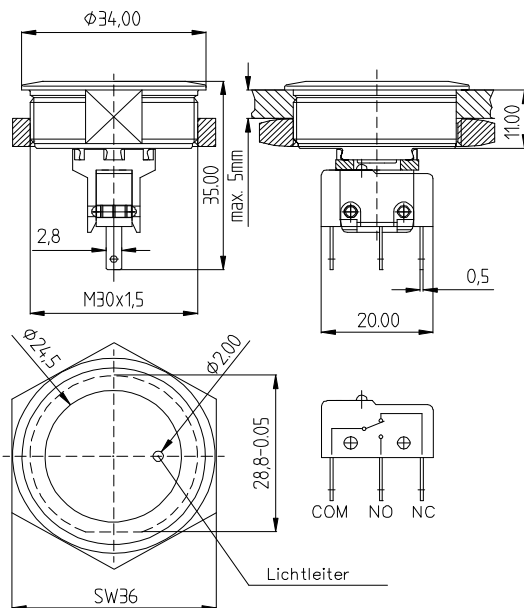
MSM 30 ST



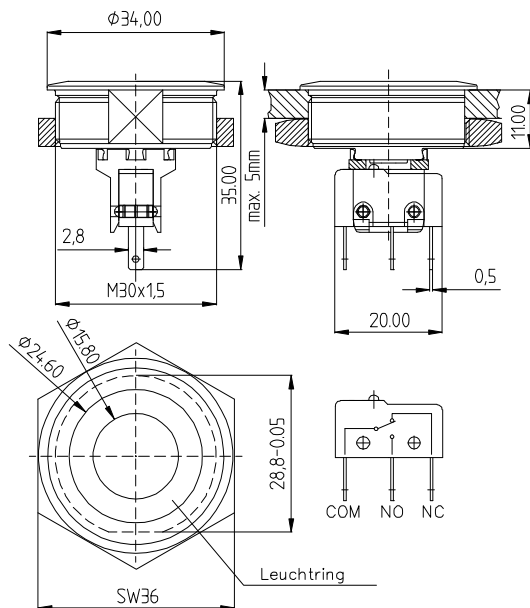
MSM 30 LE



MSM 30 PI



MSM 30 RI



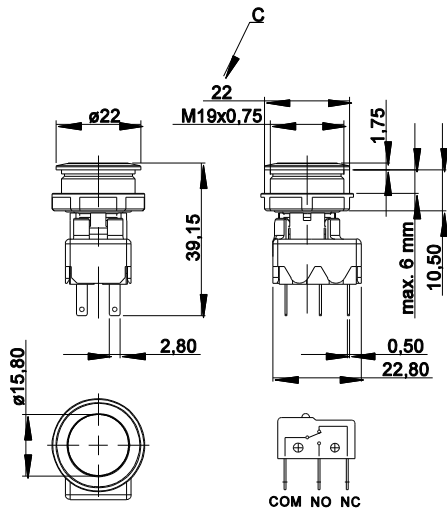
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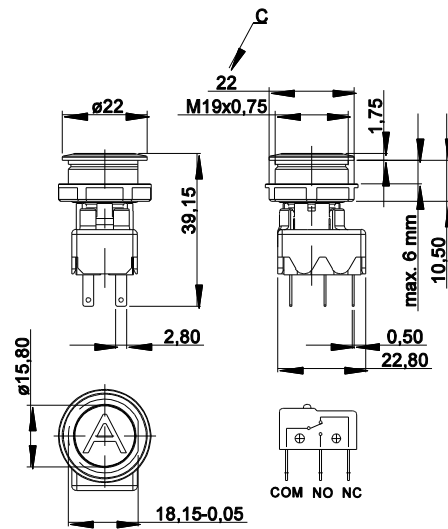
2.3 Component dimensions for double-pole configuration

2.3.1 Component dimensions MSM 19 DP (double-pole)

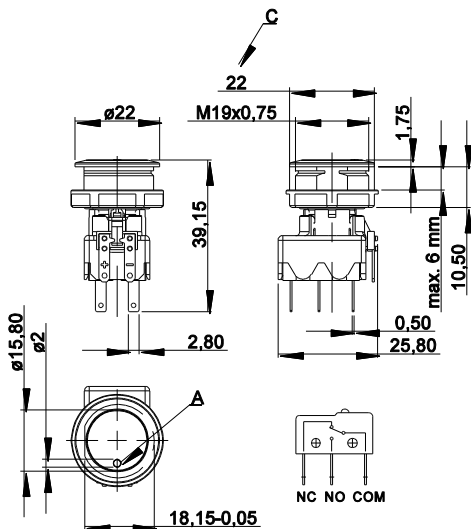
MSM 19 DP ST



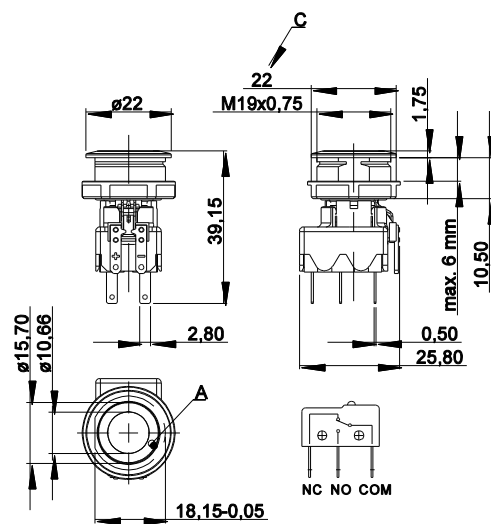
MSM 19 DP LE



MSM 19 DP PI



MSM 19 DP RI



Legend

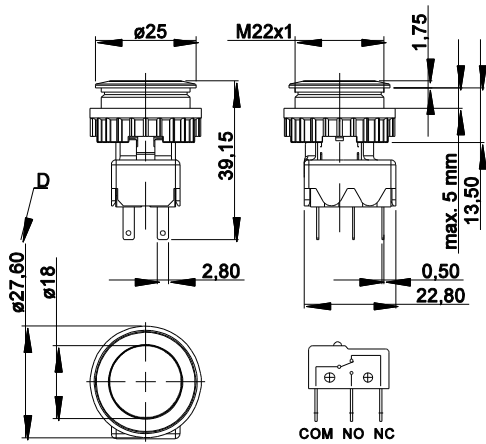
- A = Illumination Area
- B = Actuating Area
- C = Width Across Flats
- D = Knurled Nut

Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten

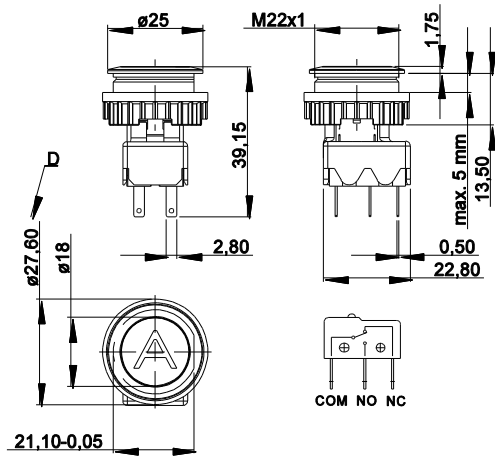
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2.3.2 Component dimensions MSM 22 DP (double-pole)

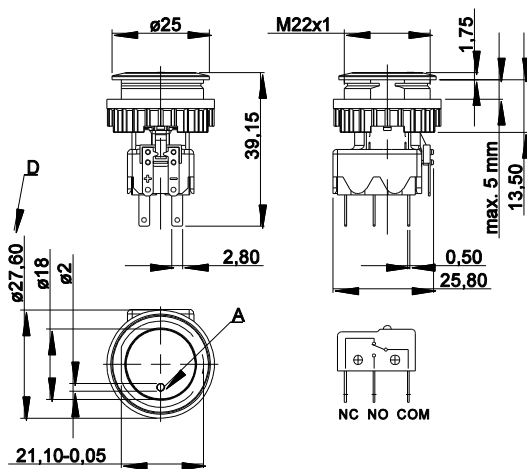
MSM 22 DP ST



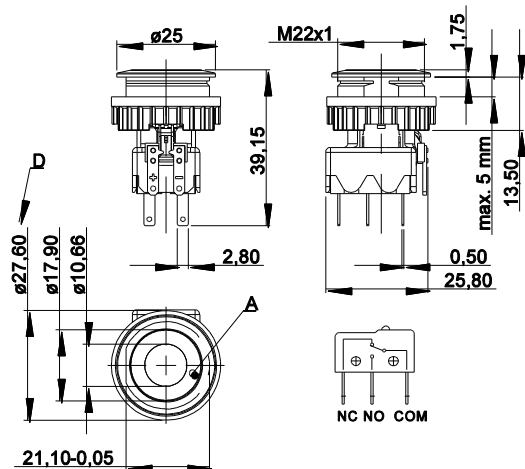
MSM 22 DP LE



MSM 22 DP PI



MSM 22 DP RI



Legend

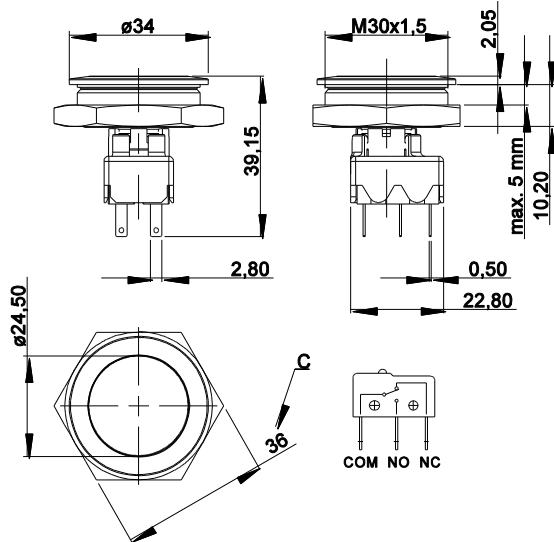
- A = Illumination Area
- B = Actuating Area
- C = Width Across Flats
- D = Knurled Nut

Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten

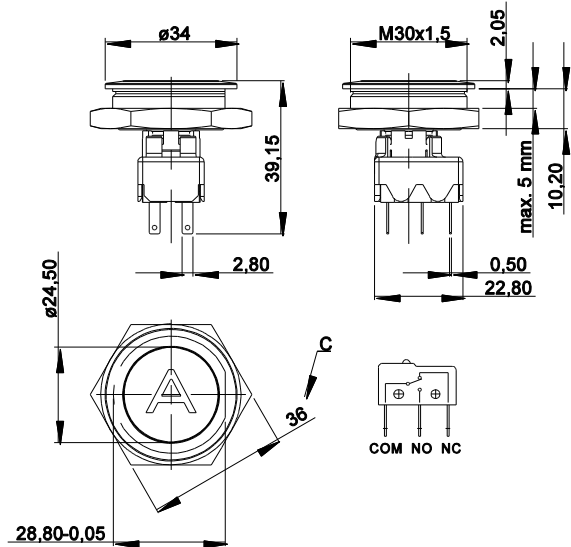
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2.3.3 Component dimensions MSM 30 DP (double-pole)

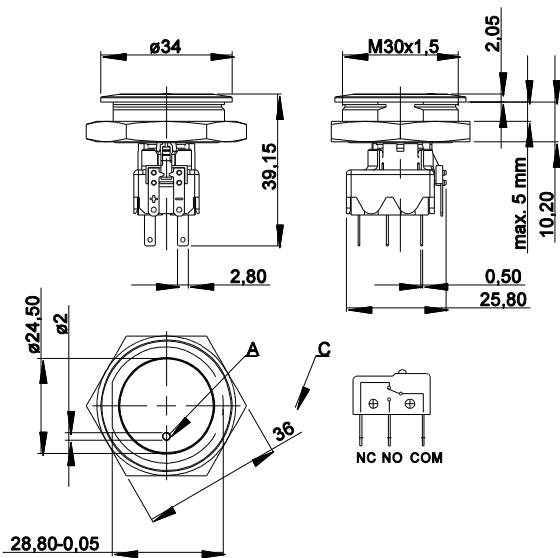
MSM 30 DP ST



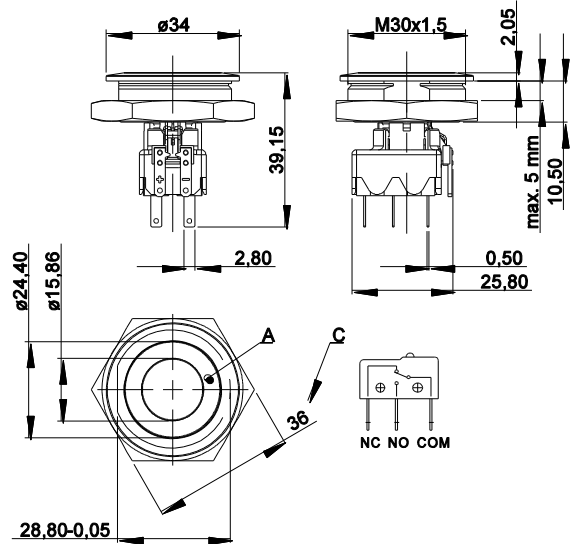
MSM 30 DP LE



MSM 30 DP PI



MSM 30 DP RI



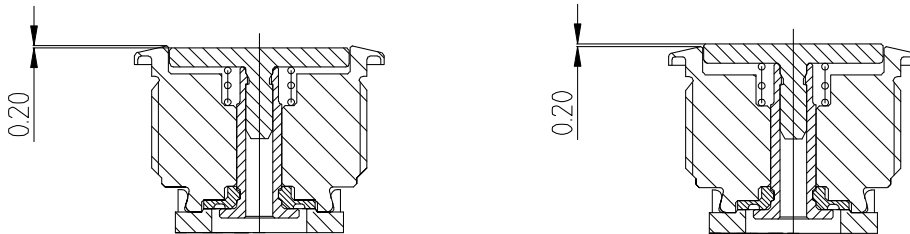
Legend

- A = Illumination Area
- B = Actuating Area
- C = Width Across Flats
- D = Knurled Nut

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2.4 Actuator Tolerance Range



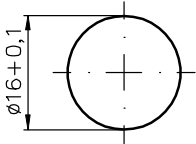
The mounting tolerance range of the actuator varies from 0.2 mm projection length and 0.2 mm short length to the housing edge. The slanting position of the actuator can range within this tolerance.

Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten

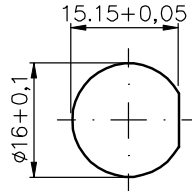
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2.5 Hole dimensions for single-pole und double-pole configuration

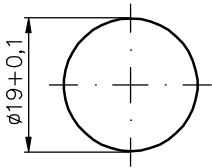
MSM 16 ST



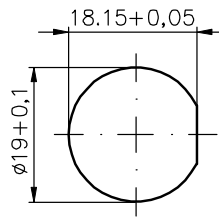
MSM 16 LE



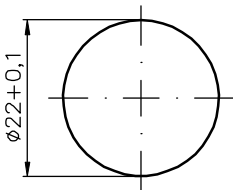
MSM 19 ST / MSM 19 RI



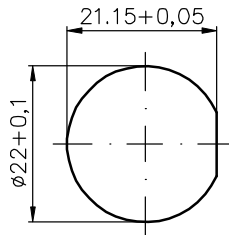
MSM 19 LE/ MSM 19 PI



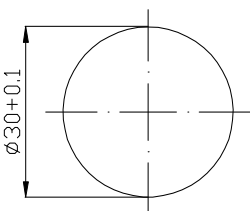
MSM 22 ST / MSM 22 RI



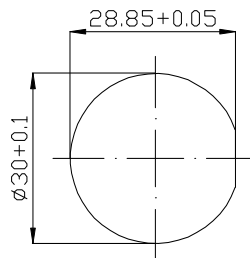
MSM 22 LE/ MSM 22 PI



MSM 30 ST / MSM 30 RI



MSM 30 LE / MSM 30 PI



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2.6 Starting Torque

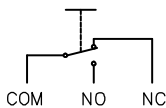
	Plastic Nut max. (Nm)	Stainless Steel Nut * max. (Nm)
MSM 16	2	10
MSM 19	4.5	12
MSM 22	3.5	16
MSM 30	8	50

* on request

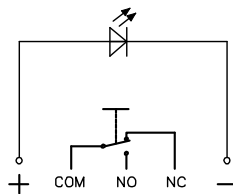
2.7 Switching Symbols

2.7.1 Switching Symbols single-pole configuration

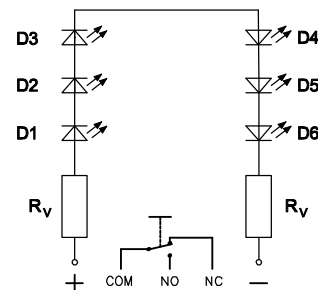
MSM ST / MSM LE



MSM PI

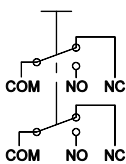


MSM RI

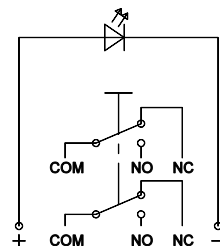


2.7.2 Switching Symbols double-pole configuration

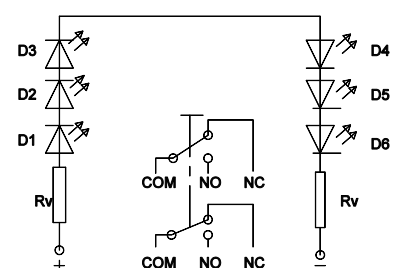
MSM ST / MSM LE



MSM PI



MSM RI



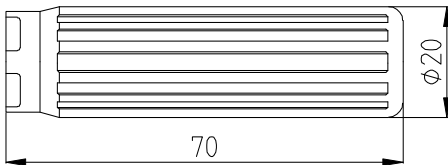
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2.8 Accessories

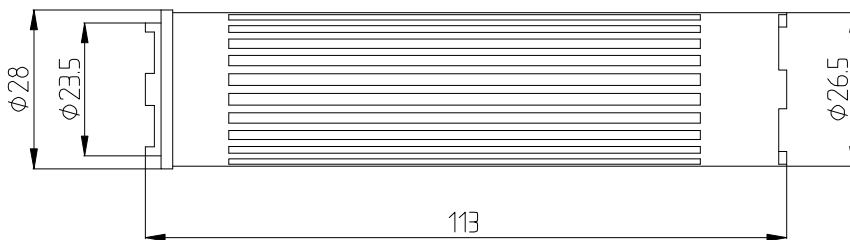
MSM 16 Installation wrench

Order number: 0853.0622



MSM 22 Installation wrench

Order number: 1141.1337



Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten

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3 ORDER NUMBERS

3.1 Order numbers MSM with micro switches of protection class IP40

Mounting Diameter (mm)	Ø 16	Ø 19	Ø 22
------------------------	------	------	------

Electrical Rating max. 0,1 A / 30 VDC			
Standard	1241.6611.1110000	1241.6621.1110000	1241.6631.1110000
With Lettering	1241.6612.1110000	1241.6622.1110000	1241.6632.1110000
Point Illumination red		1241.6623.1111000	1241.6633.1111000
Point Illumination green		1241.6623.1112000	1241.6633.1112000
<i>Point Illumination blue</i>		<i>1241.6623.1114000</i>	<i>1241.6633.1114000</i>
Ring Illumination red		1241.6624.1111000	1241.6634.1111000
Ring Illumination green		1241.6624.1112000	1241.6634.1112000
<i>Ring Illumination blue</i>		<i>1241.6624.1114000</i>	<i>1241.6634.1114000</i>
Installation Wrench	0853.0622		1141.1337

Electrical Rating max. 5 A / 125 VAC or 3 A / 250 VAC			
Standard	1241.6611.1120000	1241.6621.1120000	1241.6631.1120000
With Lettering	1241.6612.1120000	1241.6622.1120000	1241.6632.1120000
Point Illumination red		1241.6623.1121000	1241.6633.1121000
Point Illumination green		1241.6623.1122000	1241.6633.1122000
Point Illumination blue		1241.6623.1124000	1241.6633.1124000
Ring Illumination red		1241.6624.1121000	1241.6634.1121000
Ring Illumination green		1241.6624.1122000	1241.6634.1122000
Ring Illumination blue		1241.6624.1124000	1241.6634.1124000
Installation Wrench	0853.0622		1141.1337

Electrical Rating max. 10 A / 250 VAC			
Standard	1241.6611.1130000	1241.6621.1130000	1241.6631.1130000
With Lettering	1241.6612.1130000	1241.6622.1130000	1241.6632.1130000
Point Illumination red		1241.6623.1131000	1241.6633.1131000
Point Illumination green		1241.6623.1132000	1241.6633.1132000
<i>Point Illumination blue</i>		<i>1241.6623.1134000</i>	<i>1241.6633.1134000</i>
Ring Illumination red		1241.6624.1131000	1241.6634.1131000
Ring Illumination green		1241.6624.1132000	1241.6634.1132000
<i>Ring Illumination blue</i>		<i>1241.6624.1134000</i>	<i>1241.6634.1134000</i>
Installation Wrench	0853.0622		1141.1337

Itally written types on request

Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten							
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Mounting Diameter (mm)	Ø 30
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Electrical Rating max. 0,1 A / 30 VDC	
Standard	1241.6661.1110000
With Lettering	1241.6662.1110000
Point Illumination red	1241.6663.1111000
Point Illumination green	1241.6663.1112000
<i>Point Illumination blue</i>	<i>1241.6663.1114000</i>
Ring Illumination red	1241.6664.1111000
Ring Illumination green	1241.6664.1112000
<i>Ring Illumination blue</i>	<i>1241.6664.1114000</i>

Electrical Rating max. 5 A / 125 VAC or 3 A / 250 VAC	
Standard	1241.6661.1120000
With Lettering	1241.6662.1120000
Point Illumination red	1241.6663.1121000
Point Illumination green	1241.6663.1122000
<i>Point Illumination blue</i>	<i>1241.6663.1124000</i>
Ring Illumination red	1241.6664.1121000
Ring Illumination green	1241.6664.1122000
<i>Ring Illumination blue</i>	<i>1241.6664.1124000</i>

Electrical Rating max. 10 A / 250 VAC	
Standard	1241.6661.1130000
With Lettering	1241.6662.1130000
Point Illumination red	1241.6663.1131000
Point Illumination green	1241.6663.1132000
<i>Point Illumination blue</i>	<i>1241.6663.1134000</i>
Ring Illumination red	1241.6664.1131000
Ring Illumination green	1241.6664.1132000
<i>Ring Illumination blue</i>	<i>1241.6664.1134000</i>

Italicly written types on request

3.2 Order numbers MSM with micro switches of protection class IP 67

Mounting Diameter (mm)	Ø 19	Ø 22
Electrical Rating max. 5A / 250VAC		
Standard	1241.6621.1180000	1241.6631.1180000
Ring Illumination red	1241.6624.1181000	1241.6634.1181000

Combinations with micro switches of the protection class IP 67 are available for following types on request:

- Standard
- With Lettering
- Point Illumination red / green / blue
- Ring Illumination red / green / blue

3.3 Order numbers MSM with micro switches of protection class IP40 (double-pole)

Mounting Diameter (mm)	Ø 19	Ø 22	Ø 30
Electrical Rating max. 5 A / 125 VAC or 3 A / 250 VAC			
Standard	1241.6921.1120000	1241.6931.1120000	1241.6961.1120000
With Lettering	1241.6922.1120000	1241.6932.1120000	1241.6962.1120000
Point Illumination red	1241.6923.1121000	1241.6933.1121000	1241.6963.1121000
Point Illumination green	1241.6923.1122000	1241.6933.1122000	1241.6963.1122000
Point Illumination blue	1241.6923.1124000	1241.6933.1124000	<i>1241.6963.1124000</i>
Ring Illumination red	1241.6924.1121000	1241.6934.1121000	1241.6964.1121000
Ring Illumination green	1241.6924.1122000	1241.6934.1122000	1241.6964.1122000
Ring Illumination blue	1241.6924.1124000	1241.6934.1124000	<i>1241.6964.1124000</i>
Installation Wrench	0853.0622		1141.1337

Italicly written types on request

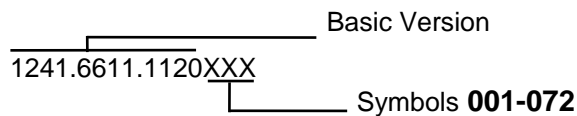
Additional switch types with the following electrical ratings are available on request:
0,1 A@30VDC, 10A@250VAC and also 6A@250VAC with IP67 protection class.
For these customized versions a minimum order quantity of 100 pieces has to be fulfilled.

3.4 Lettering

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

000	No Lettering
001-072	Standard Lettering
101-	Customized Lettering

Example for ordering with lettering



Ordering Indices for Lettering

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

Lettering Size

MSM 16 LE:

Single characters:	height 5 mm, font: Helvetica normal DIN1451-1E
Text, max. 3 characters:	height 3 mm, font: Helvetica normal DIN1451-1E
Text, max. 6 characters:	height 2.5 mm, font: Helvetica condensed DIN1451-3E
Symbols (indices 037-052):	capitals height 5 mm, font: True Type, Symbol

MSM 19 LE / MSM 19 PI:

Single characters:	height 8 mm, font: Helvetica normal DIN1451-1E
Text, max. 3 characters:	height 3 mm, font: Helvetica normal DIN1451-1E
Text, max. 6 characters:	height 2.5 mm, font: Helvetica condensed DIN1451-3E
Symbols (indices 037-052):	capitals height 8 mm, font: True Type, Symbol

MSM 22 LE / MSM 22 PI:

Single characters:	height 8 mm, font: Helvetica normal DIN1451-1E
Text, max. 3 characters:	height 5 mm, font: Helvetica normal DIN1451-1E
Text, max. 6 characters:	height 2.5 mm, font: Helvetica condensed DIN1451-3E
Symbols (indices 037-052):	capitals height 8 mm, font: True Type, Symbol

MSM 30 LE / MSM 30 PI:

Single characters:	height 12 mm, font: Helvetica normal DIN1451-1E
Text, max. 3 characters:	height 7 mm, font: Helvetica normal DIN1451-1E
Text, max. 6 characters:	height 3.5 mm, font: Helvetica condensed DIN1451-3E
Symbols (indices 037-052):	capitals height 12 mm, font: True Type, Symbol

4 PACKAGING

MSM Switch

MSM 16		10 pieces per box with inlay
MSM 19		10 pieces per box with inlay
MSM 22		10 pieces per box with inlay
MSM 30	1 piece in air cushion bag	10 pieces per box

The nuts with gaskets and corresponding micro switches are packed separately and enclosed in the box.



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5 QUALIFICATION TEST

5.1 IP Protection Class

IP Protection Class IEC/DIN/EN/ 60529	IP 67
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5.2 IK Protection Class

Tested Centrally

IK Protection Class DIN EN 50102	Ø 16 mm	IK 06	Ø 19; 22; 30 mm	IK07
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5.3 ESD Protection

ESD-Test according to DIN 61000-4-2:

4kV Contact Discharge	MSM ST	Ø 16; 19; 22; 30 mm
4kV Contact Discharge	MSM LE	Ø 16; 19; 22; 30 mm
4kV Contact Discharge	MSM DP ST	Ø 19; 22; 30 mm
4kV Contact Discharge	MSM DP LE	Ø 19; 22; 30 mm

5.4 Salt Spray Test

Salt spray test according to DIN 50021- SS
24h, 48h and 96h residence time

The surface of the stainless steel material is covered with a molecular-passive layer. Only under very unfavourable conditions it is possible, that iron and rust molecules as well as base metals penetrate the passive layer as foreign substances (pollutions) and initiate the rust process.

The smoothness of the actuator was not affected. After the residence time the tested samples were cleaned under running water and all rust spots could be removed.

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6 APPROVALS

The listed approvals only refer to the micro switch and not to the complete switch.

Micro switch:


Type	Licence number	ENEC VDE / KEMA	UL 1054 CSA C22.2 NO55
1050.1151	097550	DIN EN 61058	E41791
1050.1102	097550	DIN EN 61058	E41791
1050.1103	097550	DIN EN 61058	E41791
SS-01 T	40008425	DIN EN 61058	E41515
SS-5 T	129246	DIN EN 61058	E41515
SS-10 T	125256	DIN EN 61058	E41515
DC3GL1AA	2089323.01	DIN EN 61058	E23301
DC1GL1AA	2089323.01	DIN EN 61058	E23301
DC2GL1AA	2089323.01	DIN EN 61058	E23301

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7 ROHS COMPLIANT

7.1 ROHS compliant for MSM with micro switch of protection class IP40 (single-pole)

					Mounting Diameter (mm)		
					Ø 16	Ø 19	Ø 22
Electrical Rating max. 0,1A / 30VDC	compliant						
Standard	compliant	1241.6611.1110000	1241.6621.1110000	1241.6631.1110000			
With Lettering	compliant	1241.6612.1110000	1241.6622.1110000	1241.6632.1110000			
Point Illumination red	compliant		1241.6623.1111000	1241.6633.1111000			
Point Illumination green	compliant		1241.6623.1112000	1241.6633.1112000			
Point Illumination blue	compliant		1241.6623.1114000	1241.6633.1114000			
Ring Illumination red	compliant		1241.6624.1111000	1241.6634.1111000			
Ring Illumination green	compliant		1241.6624.1112000	1241.6634.1112000			
Ring Illumination blue	compliant		1241.6624.1114000	1241.6634.1114000			
Electrical Rating max. 5A / 125VAC	compliant						
Standard	compliant	1241.6611.1120000	1241.6621.1120000	1241.6631.1120000			
With Lettering	compliant	1241.6612.1120000	1241.6622.1120000	1241.6632.1120000			
Point Illumination red	compliant		1241.6623.1121000	1241.6633.1121000			
Point Illumination green	compliant		1241.6623.1122000	1241.6633.1122000			
Point Illumination blue	compliant		1241.6623.1124000	1241.6633.1124000			
Ring Illumination red	compliant		1241.6624.1121000	1241.6634.1121000			
Ring Illumination green	compliant		1241.6624.1122000	1241.6634.1122000			
Ring Illumination blue	compliant		1241.6624.1124000	1241.6634.1124000			
Electrical Rating max. 10A / 250VAC	compliant						
Standard	compliant	1241.6611.1130000	1241.6621.1130000	1241.6631.1130000			
With Lettering	compliant	1241.6612.1130000	1241.6622.1130000	1241.6632.1130000			
Point Illumination red	compliant		1241.6623.1131000	1241.6633.1131000			
Point Illumination green	compliant		1241.6623.1132000	1241.6633.1132000			
Point Illumination blue	compliant		1241.6623.1134000	1241.6633.1134000			
Ring Illumination red	compliant		1241.6624.1131000	1241.6634.1131000			
Ring Illumination green	compliant		1241.6624.1132000	1241.6634.1132000			
Ring Illumination blue	compliant		1241.6624.1134000	1241.6634.1134000			

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		Mounting Diameter (mm)
Electrical Rating max. 0,1A / 30VDC		Ø 30
Standard	compliant	1241.6661.1110000
With Lettering	compliant	1241.6662.1110000
Point Illumination red	compliant	1241.6663.1111000
Point Illumination green	compliant	1241.6663.1112000
Point Illumination blue	compliant	1241.6663.1114000
Ring Illumination red	compliant	1241.6664.1111000
Ring Illumination green	compliant	1241.6664.1112000
Ring Illumination blue	compliant	1241.6664.1114000
Electrical Rating max. 5A / 125VAC		Ø 30
Standard	compliant	1241.6661.1120000
With Lettering	compliant	1241.6662.1120000
Point Illumination red	compliant	1241.6663.1121000
Point Illumination green	compliant	1241.6663.1122000
Point Illumination blue	compliant	1241.6663.1124000
Ring Illumination red	compliant	1241.6664.1121000
Ring Illumination green	compliant	1241.6664.1122000
Ring Illumination blue	compliant	1241.6664.1124000
Electrical Rating max. 10A / 250VAC		Ø 30
Standard	compliant	1241.6661.1130000
With Lettering	compliant	1241.6662.1130000
Point Illumination red	compliant	1241.6663.1131000
Point Illumination green	compliant	1241.6663.1132000
Point Illumination blue	compliant	1241.6663.1134000
Ring Illumination red	compliant	1241.6664.1131000
Ring Illumination green	compliant	1241.6664.1132000
Ring Illumination blue	compliant	1241.6664.1134000


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7.2 ROHS compliant for MSM with micro switch of protection class IP 67

		Mounting Diameter (mm)	
Special configuration IP 67			
Electrical Rating max. 5A / 250VAC		Ø 19	Ø 22
Standard	compliant	1241.6621.1180000	1241.6631.1180000
Ring Illumination	compliant	1241.6624.1181000	1241.6634.1181000

7.3 ROHS compliant for MSM with micro switch of protection class IP40 (double-pole)

		Mounting Diameter (mm)		
Electrical Rating max. 5A / 125VAC		Ø 19	Ø 22	Ø 30
Standard	compliant	1241.6921.1120000	1241.6931.1120000	1241.6961.1120000
With Lettering	compliant	1241.6922.1120000	1241.6932.1120000	1241.6962.1120000
Point Illumination red	compliant	1241.6923.1121000	1241.6933.1121000	1241.6963.1121000
Point Illumination green	compliant	1241.6923.1122000	1241.6933.1122000	1241.6963.1122000
Point Illumination blue	compliant	1241.6923.1124000	1241.6933.1124000	1241.6963.1124000
Ring Illumination red	compliant	1241.6924.1121000	1241.6934.1121000	1241.6964.1121000
Ring Illumination green	compliant	1241.6924.1122000	1241.6934.1122000	1241.6964.1122000
Ring Illumination blue	compliant	1241.6924.1124000	1241.6934.1124000	1241.6964.1124000

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