



## KISSLING MICRO SWITCH

### Series MZX1/MZT1/MZN1

#### Quality Switch

Our MZW1 KISSLING micro switches have been specifically designed for mission critical applications with extended environmental requirements in a centrally controlled miniature housing.

These high quality micro switches are precise and display both reliable and consistent switching behavior under the harshest conditions and over product lifespans of 10 million cycles. The switch has a load switching range from 0.1A up to 10A (AC). The housings are made of thermoplastic and are sealed up to IP67 depending on the configuration. This switch is also available in a modified version for special applications up to 300°C.

This series offers high switching security, since in operation the moving contact is activated in a cross traverse with respect to the fixed contact. This movement provides automatic self cleaning of the main contact surface and inhibits welding or sticking. These switches are intended to be used in extreme environmental conditions.

#### Features

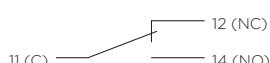
- 1- and 2-pole switches available
- Nominal load up to 10A at 250VAC
- Min. switching current 10mA at 12VDC
- Switching frequency up to 200 cycles/min.
- Variety of available actuator geometries and sizes
- High quality silver alloy or gold plated contacts
- Dimensions according to DIN 41635 Form A

#### Applications

- Automotive equipment
- General mechanical engineering
- Appliance and industrial engineering
- Medical equipment
- Commercial vehicles

#### Switching function

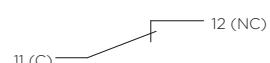
##### Change-over



##### NO



##### NC



# KISSLING MICRO SWITCH

Series MZX1/MZT1/MZN1

## Specification

### Technical Data

Housing Material	Thermoplast GF
Interior protection / Protection terminals	IP 40 IEC 60529 / IEC 60529
Positive action operation (MZT)	Similar DIN EN IEC 60 947-3

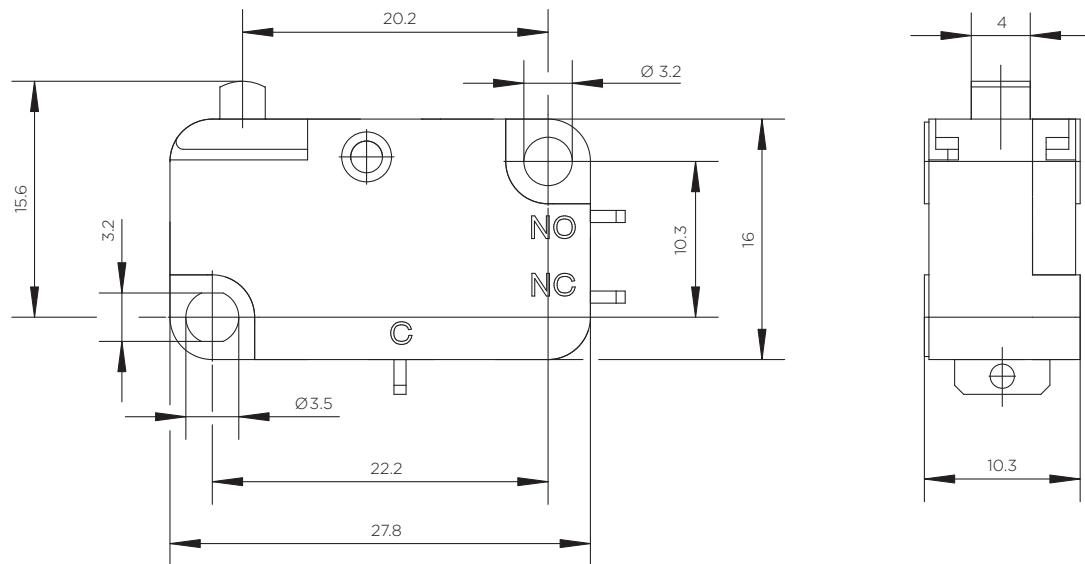
### Mechanical Data (Change-over)

Pre-travel	0.5mm - 1.1mm
Overtravel	> 1mm
Movement differential	0.05mm - 0.3mm
Operating force	Class 2: 1N - 1.5N   Class 3: 1.5N - 3N   Class 4: 3N - 4.5N
Release force	Class 2: > 0.6N   Class 3: > 1N   Class 4: > 1N
Max operating force	< 10N
Current carrying parts	CuZn-alloy
Contact material	Silver alloy or gold plated contacts
Mechanical life	10 Mio.
Frequency	200/min
Operating speed in direction of plunger	max. 0.5m/sec
Temperature range	-40°C to +85°C
Temperature range (special edition)	-55°C to +300°C

### Electrical data

Nominal voltage	250VAC, 24VDC
Continuous current	10.1A
Min. switching capacity	12VDC, 10mA

## Technical drawings

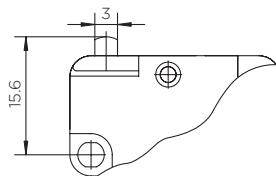


# KISSLING MICRO SWITCH

Series MZX1/MZT1/MZN1

## Actuators

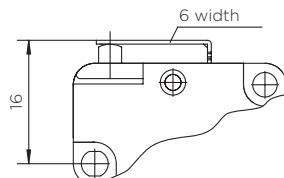
### Switch actuator



#### 02 MZX1 / MZT1

Class	2	3	4
OF	1.0-1.5	1.5-3.0	3.0-4.5
P mm	0.5-1.1		
O mm		> 1	
MD mm	0.05-0.3		

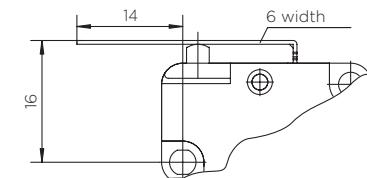
### Short lever



#### 04 MZX1 / MZT1

Class	3	4
OF	1.5-3.0	3.0-4.5
P mm	0.5-1.1	
O mm		> 1
MD mm	0.05-0.3	

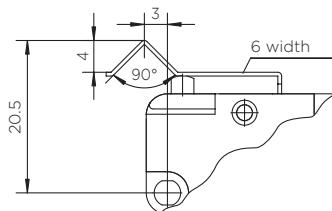
### Long lever



#### 05 MZX1 / MZT1

Class	3	4
OF	0.5-1.4	1.4-2.5
P mm	1.0-2.5	
O mm		> 2
MD mm	0.1-0.7	

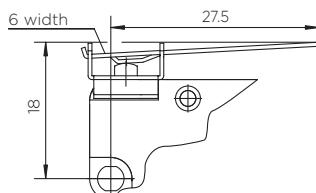
### Lever with angle cam



#### 07 MZX1 / MZT1

Class	3	4
OF	1.0-2.2	2.2-4.0
P mm	0.6-1.5	
O mm		> 1
MD mm	0.05-0.4	

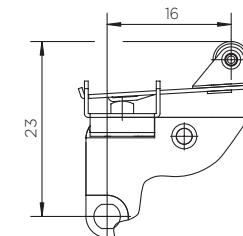
### Long lever



#### 12 MZX1 / MZT1

Class	3	4
OF	0.25-0.5	0.5-1.0
P mm	2.1-4.0	
O mm		> 0.8
MD mm	0.3-1.2	

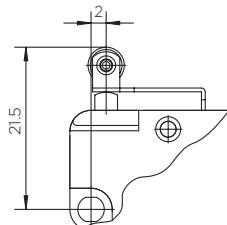
### Short lever with roller Ø 5



#### 30 MZX1 / MZT1

Class	3	4
OF	0.35-0.8	0.8-1.3
P mm	1.5-2.5	
O mm		> 0.8
MD mm	0.3-1	

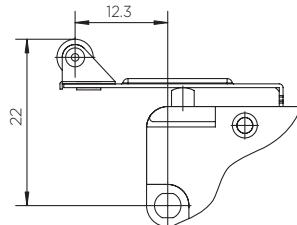
### Short lever with roller Ø 5



#### 36 MZX1 / MZT1

Class	3	4
OF	1.5-3.0	3.0-4.5
P mm	1.5-1.1	
O mm		> 1
MD mm	0.05-0.3	

### Lever with roller Ø 5



#### 37 MZX1 / MZT1

Class	3	4
OF	0.5-1.4	1.4-2.5
P mm	1.0-2.5	
O mm		> 0.8
MD mm	0.1-0.7	

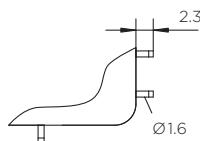
Roller material plastic, optional material brass or steel

### Description:

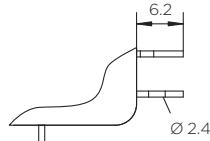
OF = Operating force  
 O = Overtravel  
 P = Pretravel  
 MD = Movement differential

### Connection types

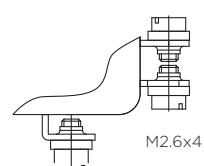
Solder Connection



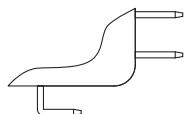
Solder Connection



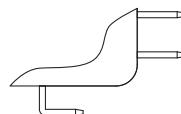
Screw terminals M2.6



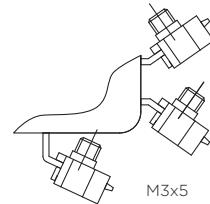
FASTON terminals 2.8 x 0.8



FASTON terminals 6.3 x 0.8



Screw terminals M3



### Ordering Information

#### Part Number

example: MZX1.361.305

**MZ\_1.\_\_\_\_\_.\_\_\_\_**

#### Series

<b>X</b>	Snap switch
<b>T</b>	Snap switch with positive action
<b>N</b>	Main disconnecting switch

#### Actuator

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#### Switching function

<b>1</b>	Change-over
<b>2</b>	NO
<b>3</b>	NC

#### Connection types

<b>02</b>	Solder Connection 2.5
<b>04</b>	Solder Connection 6.2
<b>05</b>	Screw terminals M 2.6
<b>06</b>	FASTON terminals 2.8 x 0.8
<b>08</b>	FASTON terminals 6.3 x 0.8
<b>09</b>	Screw terminals M3

#### Class

<b>2</b>	select on page 3
<b>3</b>	select on page 3
<b>4</b>	select on page 3

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