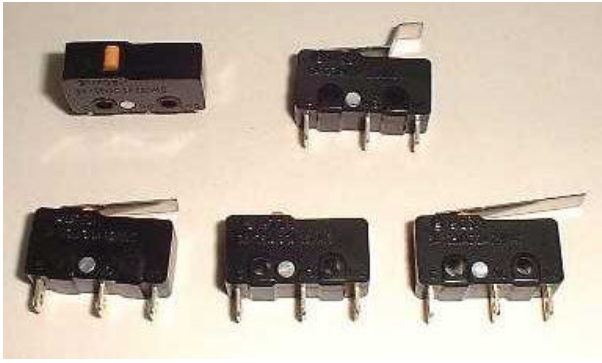


MQS-1s Subminiature Snap Action Switch



Characteristics

- Mini size high performance snap action switches
- Wide switching capacity from 0.2A ~ 10A/250VAC
- Optional gold contacts for low energy applications
- Wide operating temperature range: -25 ~ +85C
- Reduced contact gap distance version available
- Custom made levers & different operating force
- Compliant to major safety standards
- Optional movement differential travel distance for different applications

Electrical Data	
Electrical Ratings & Operating life cycles	0.2A/48VDC 25T85 1,000,000 cycles 3A 125/250VAC 25T85 50,000 cycles 5A 125/250VAC 25T85 50,000 cycles 10A 125/250VAC 25T85 10,000 cycles
Dielectric strength	1,000VAC, 50~60Hz, for 1min between current-carrying metal part and ground, and between each terminal and non-current carrying metal part.
Contact resistance	30 mΩ (max, silver contacts)
Insulation resistance	100 MΩ (min)
Mechanical Data	
Movement Differential Travel	0.1mm (max)
Operating force	50 ± 10 gf (for pin plunger/no lever type only, refer to attached table for operating force with lever)
Further Data	
Operating temperature	-25 ~ +85C
Circuit configuration	SPDT SPST-NO SPST-NC
Terminals	Quick Connect Terminal Solder Terminal Bent Terminal
Housing material	Thermosetting Plastic
Flammability Rating	UL94V-0
Proof Tracking Index (PTI/CTI)	175V

Ordering Information

MQS- 1s 1 A 80N P - xxxx
 1 2 3 4 5 6

- 1: Ratings/Series
 1 = 0.2A /48V DC 3 = 5A/250V AC
 2 = 3A/250V AC 4 = 10A/250V AC
- 2: Lever Type
 A, B, C, D, ...Z
 N = No Lever
- 3: Operating force
 Operating force measured at the tip of the actuator
 Refer to following table for the operating force of individual lever type
- 4: Contact Gap
 N= Normal type(Movement differential travel: 0.1mm max)
 R= Quick Return Type (under development)
- 5: Terminal type
 A=Solder Lugs
 B=Bent Terminal
 D=Quick Connect Terminal
- 6: Spec code which to be assigned by Toneluck for individual customer specification

Terminal Type

<p>Type A: Solder Terminal</p>	<p>Mounting Holes</p>
<p>Type C: Bent Terminal</p>	<p>Type D: Quick Connect Terminal</p>

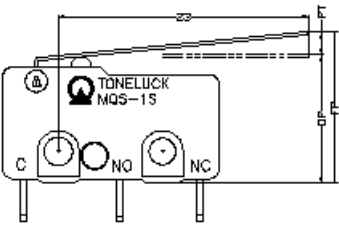
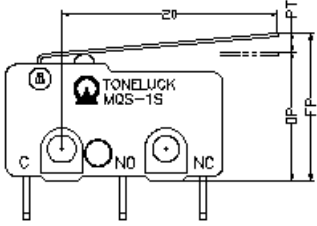
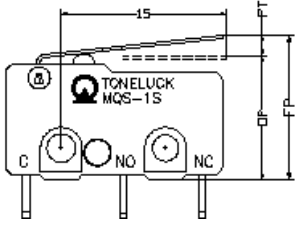
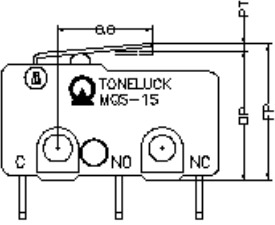
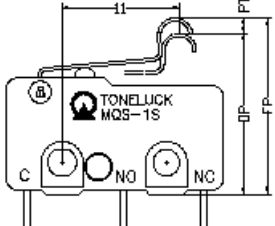
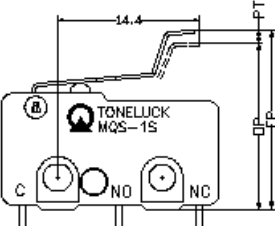
Circuit Configurations

<p>SPDT</p>	<p>SPST-NO</p>	<p>SPST-NC</p>
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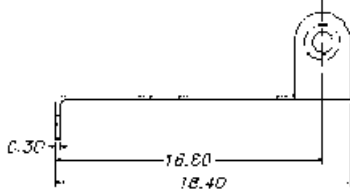
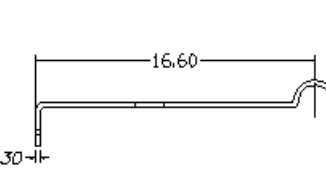
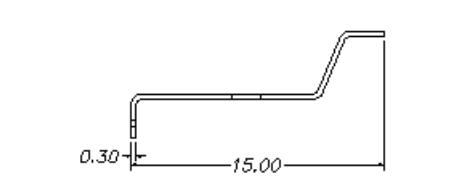
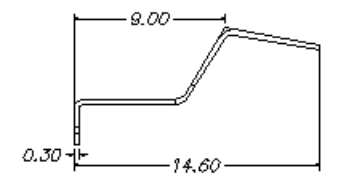
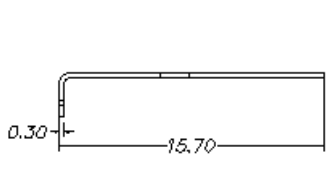
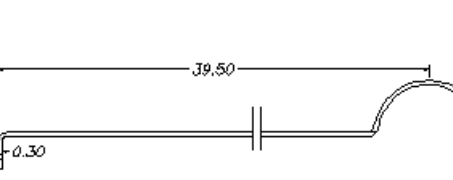
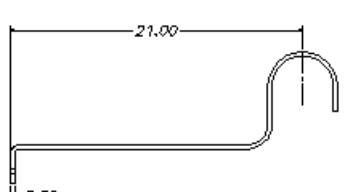
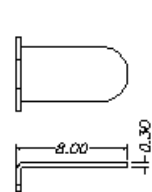
Lever Type

Lever Type	Dimensions	Standard Operating Force Releasing Force (gf)	OP (mm)	PT (mm)	OT (mm)	MD (mm, max)
N		50 (± 10)	11 ± 0.5	0.5 max	0.8 ± 0.5	0.1
		20				
A		10 (± 5)	11 ± 2	1.2 ± 0.5	2.5 ± 0.5	0.4
		3				
B		12 (± 5)	13 ± 1	0.8 ± 0.5	2.5 ± 0.5	0.3
		5				



Lever Type	Dimensions	Standard Operating Force Releasing Force (gf)	OP (mm)	PT (mm)	OT (mm)	MD (mm, max)
H		8 (±5)	13 ± 0.5	1.7 ± 0.5	3.1 ± 0.5	0.4
		3				
J		10 (±5)	12.5 ± 0.5	1.2 ± 0.5	3.0 ± 0.5	0.4
		3				
L		15 (±5)	13 ± 0.5	0.8 ± 0.5	2.6 ± 0.5	0.4
		8				
M		25 (±10)	12 ± 0.5	0.65 ± 0.5	1.5 ± 0.5	0.2
		8				
P		10 (±5)	17 ± 2	0.6 ± 0.3	2.2 ± 0.5	0.3
		3				
S		15 (±5)	16.5 ± 0.5	0.5 ± 0.3	2.8 ± 0.5	0.3
		8				

Other Available Lever Types

<p><i>Type: C</i></p> 	<p><i>Type: D</i></p> 	<p><i>Type: E</i></p> 
<p><i>Type: F</i></p> 	<p><i>Type: G</i></p> 	<p><i>Type: K</i></p> 
<p><i>Type: R</i></p> 	<p><i>Type: T</i></p> 	

Note 1:

Movement Differential Travel(MD) Distance is the distance of the actuator from the operating position to the releasing position. The shorter the DT distance, the quicker the moving contact returns back to NC contact from the NO contact. This feature is especially useful when the NO contact is connected to an inductive load or motor load such as a coil, during the OFF->ON->OFF switching cycle, a very strong back EMF is generated which can be as high as hundred volts. In this case, the shorter the switching cycle (thus shorter DT distance), the less damage of the EMF to the contacts which leads to longer operating life cycles of the devices.