Dust protected Compact-sized Snap Action Switches
MQS-56 Series

Features

<>Flux-resistant construction with integrally molded terminals.
<>Suitable for the use in the watery, dusty and corrosive gas environment.



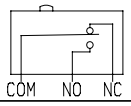
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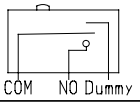
Applications

<>Cleaner , Refrigerator , Hot water pot

Products Number system

MQS-56[ ]-[ ][ ][ ]-[ ]

Contact form
Blamk:Transfer type 

A:COM-NO type 

Operating force (Pin plunger type)
3:MAX1.23N(125gf) 5:MAX1.96N(200gf)

Actuator
Blank : Pin plunger type
L : Hinge lever 
D : Simulated hinge lever 

Contact
Blank : Silver alloy PT : PGS alloy

Terminal
Blank : PC board terminal

Typical Specifications

Item	Specifications			
Contact	Silver alloy contact type		PGS alloy contact type	
Operating force (Pin plunger type)	MAX 1.23N (125gf)	MAX 1.96N (200gf)	MAX 1.23N (125gf)	MAX 1.96N (200gf)
Ratings (Resistive load)	1A 125V AC 1A 30V DC		0.1A 125V AC 0.1A 30V DC	
Mechanical life	300,000 cycles			
Electrical life	30,000 cycles		100,000 cycles	
Contact resistance (Initial)	MAX 30 milliohm		MAX 100 milliohm	
Insulation Resistance	MIN 100 megohm 500V DC			
Withstanding voltage	Between open contacts : 600V AC 1min Between each terminal and non live metal part : 1500V AC 1min Between each terminal and each : 1500V AC 1min			
Resistibility to vibration (Pin plunger type)	double amplitude : 1.5mm , frequency : 10 to 55Hz Each direction Open contact shall be less than 1 ms at the above conditions.			
Resistibility to shock (Pin plunger type)	Open contact shall be less than 1 ms at 30G.			
Allowable operating speed (at no load)	1 to 500 mm/sec.			
Max. operating cycle rate (at no load)	120 times/min.			
Operating temperature range	-20 to +70 degree Celsius			
Ambient humidity	MAX 85%RH			

Products line

Transfer type : MQS-56[ ]-_ _ ([ ] is blank)
COM-NO type : MQS-56[A]-_ _ (A in [ ])

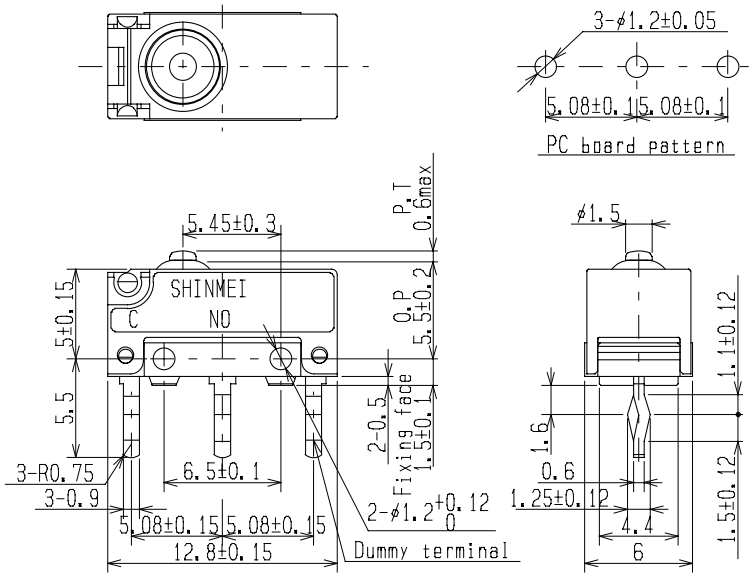
Actuator	No	Operating force (MAX)	Silver alloy	PGS alloy
			Products No.	Products No.
Pin plunger type (Blank)	1	1.23N (125gf)	MQS-56[ ]-3	MQS-56[ ]-3PT
		1.96N (200gf)	MQS-56[ ]-5	MQS-56[ ]-5PT
Hinge lever (L)	2	0.39N (40gf)	MQS-56[ ]-3L	MQS-56[ ]-3LPT
		0.64N (65gf)	MQS-56[ ]-5L	MQS-56[ ]-5LPT
Simulated hinge lever (D)	3	0.39N (40gf)	MQS-56[ ]-3D	MQS-56[ ]-3DPT
		0.64N (65gf)	MQS-56[ ]-5D	MQS-56[ ]-5DPT

Operating characteristic

Actuator	Operating force code	O.F. MAX.	R.F. MIN	P.T. MAX	M.D. MAX	O.T. MIN	O.P.
Pin plunger type (Blank)	3	1.23N	0.147N	0.6	0.12	0.25	5.5 plus or minus 0.2
	5	1.96N	0.245N				
Hinge lever (L)	3	0.39N	0.029N	3.0	0.5	0.5	6.8 plus or minus 01.0
	5	0.64N	0.049N				
Simulated hinge lever (D)	3	0.39N	0.029N	3.0	0.5	0.5	9.8 plus or minus 01.0
	5	0.64N	0.049N				

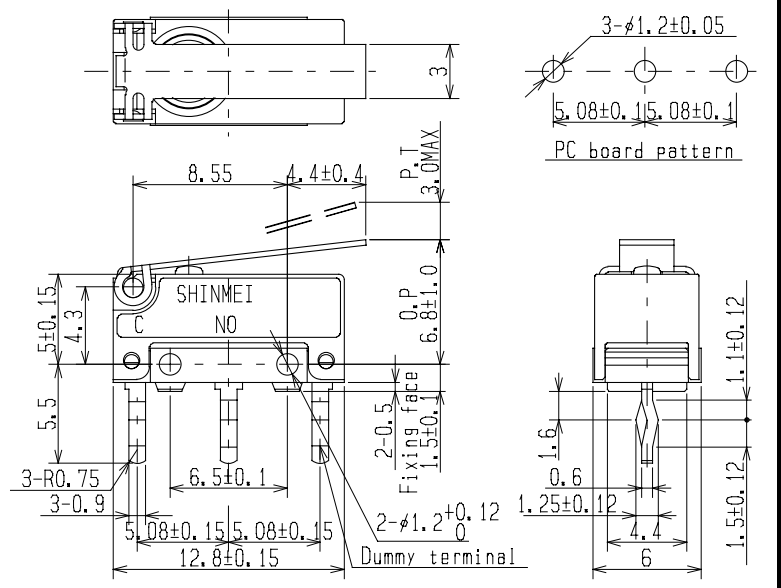
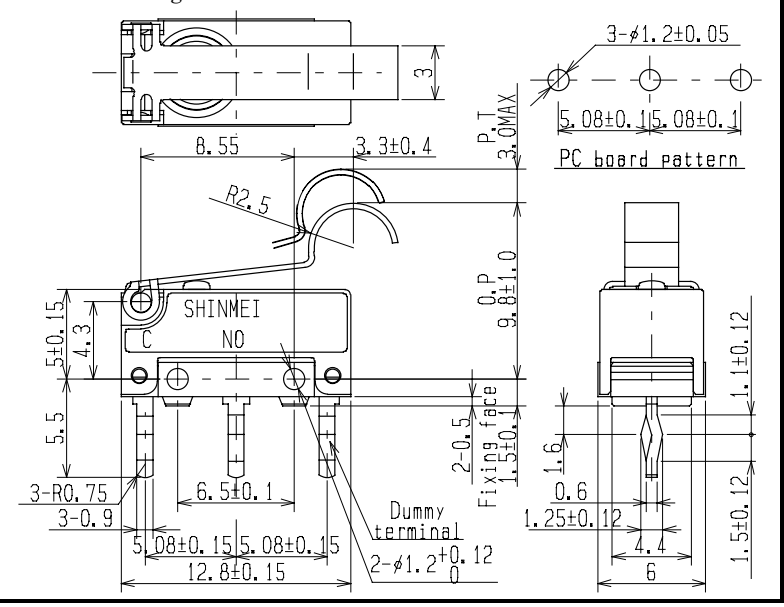
Dimension

Unit : mm

No	Style	Operating characteristic	
1	Pin plunger type 	P.T. MAX	0.6mm
		M.D. MAX	0.12mm
		O.T. MIN	0.25mm
		O.P. From fixing hole	5.5 plus or minus 0.2mm
		O.P. From fixing face	7 plus or minus 0.3mm

Dimension

Unit : mm

No	Style	Operating characteristic	
2	Hinge lever 	P.T. MAX	3mm
		M.D. MAX	0.5mm
		O.T. MIN	0.5mm
		O.P. From fixing hole	6.8 plus or minus 1.0mm
		O.P. From fixing face	8.3 plus or minus 1.1mm
3	Simulated hinge lever 	P.T. MAX	3.0mm
		M.D. MAX	0.5mm
		O.T. MIN	0.5mm
		O.P. From fixing hole	9.8 plus or minus 1.0mm
		O.P. From fixing face	11.3 plus or minus 1.1mm

Notes

1. The appearance and specifications of the product may be modified without prior notice to improve its performance.
2. This catalog shows only outline specifications. When using the product, please obtain formal specifications.
3. Please see appendix [Cautions in Using Switches].
4. Fix the switch by M2 screw with torque less than 9.8 N-cm(1 kg-cm)
   Fixing with spring washers and adhesive are recommended to avoid the loose of the screw.
5. Operating force applied to push button or actuator should be zero at free position and the force shall not be applied vertically to push button during the operation.
6. O.T. (Over travel) shall be set between 80% and 100% of O.T. specifications.
7. In connecting lead wires, care should be taken not to apply tension to terminal.
8. In case of manual-soldering, soldering should be finished within 3 seconds by soldering iron of 30 W or with maximum tip temperature of 350 degree Celsius. Please do not apply pressure for 1 minute after soldering.
9. Please design usage of switch in proper operation even if any standard value of operational characteristics changes by plus or minus 20 % .
10. No dust, high humidity and organic gas should be found in the storage location.
11. Please confirm the performance on actual operation by simulation with actual environment environments for high reliability.