

# Dust protected Compact-sized Snap Action Switches

## MQS-55/-55A Series

### Features

- ◇ Suitable for the use in the watery, dusty and corrosive gas environment.
- ◇ Flux-resistant construction with integrally molded terminals.
- ◇ 4 variations with low operating force (0.25N) to high operating force (1.47N)
- ◇ Lead wire terminal, PC board terminal, #110 Quick-connect terminal, PC board terminal Right/Left angle, Water protected type with hermetic sealed terminal are available.
- ◇ UL, CSA (C-UL) approved. File No. : E90211



Actual size

### Applications

- ◇ Automotive products, Vending machine, Water heater
- ◇ Cleaner, Refrigerator, Hot water pot

### Products Number system

MQS-55 [ ] - [ ] [ ] [ ] - [ ] - [ ]

<p>— Contact</p> <p>Blank : Transfer type</p> <p>COM NO NC</p>		<p>A : COM-NO type</p> <p>COM NO Dummy</p>	
<p>— Operating force (Pin plunger type)</p> <p>1 : MAX0.74N(75gf)      5 : MAX1.47N(150gf)</p> <p>3 : MAX0.98N(100gf)    7 : MAX1.96N(200gf)</p>			
<p>— Actuator</p> <p>Blank : Pin plunger type</p>		<p>L1 : Hinge shaft lever    L=5mm</p> <p>L : Hinge lever            L=7.15mm</p> <p>L2 : Hinge long lever     L=13.1mm</p> <p>L3 : Hinge long lever     L=26.1mm</p> <p>D : Hinge R2.5 lever      L=6.3mm</p> <p>D3 : Hinge R1.3 lever     L=6.3mm</p> <p>D2 : Hinge roller lever    L=5mm</p>	
<p>— Contact</p> <p>Blank : Silver alloy      AU : Gold clad triple layer</p> <p>U2 : Gold clad twin layer</p>			
<p>— Terminal</p> <p>Blank : Lead wire terminal  PR : PC board terminal right angle </p> <p>P : PC board terminal  PL : PC board terminal left angle </p> <p>F : #110 Quick-connect terminal  W : Water protected terminal </p>			
<p>Notes.COM-NO type with #110 Quick-connect terminal is with NC terminal cut.</p>			
<p>— Special load</p> <p>R : Possible lever reverse direction attachment type</p> <p>Notes.Transfer type is possible lever direction attachment type.</p>			

## □ Typical Specifications

Item	Specifications							
<b>Contact</b>	Silver alloy contact type				Gold clad twin / triple layer contact type			
<b>Operating force (Pin plunger type)</b>	MAX 0.74N (75gf)	MAX 0.98N (100gf)	MAX 1.47N (150gf)	MAX 1.96N (200gf)	MAX 0.74N (75gf)	MAX 0.98N (100gf)	MAX 1.47N (150gf)	MAX 1.96N (200gf)
<b>Ratings (Resistive load)</b>	0.1A 125V AC 0.1A 30V DC	2A 125V AC 2A 30V DC			0.1A 125V AC 0.1A 30V DC			
<b>Mechanical life</b>	1,000,000 cycles							
<b>Electrical life</b>	200,000 cycles	50,000 cycles			200,000 cycles			
<b>Contact resistance (Initial)</b>	MAX 500 milliohm	MAX 30 milliohm			MAX 500 milliohm	MAX 100 milliohm		
<b>Insulation Resistance</b>	MIN 100 megohm 500V DC							
<b>Withstanding voltage</b>	Between open contacts				: 1000V AC 1min			
	Between each terminal and non live metal part				: 1500V AC 1min			
	Between each terminal and each				: 1500V AC 1min			
<b>Resistibility to vibration (Pin plunger type)</b>	double amplitude : 1.5mm , frequency : 10 to 55Hz Each direction Open contact shall be less than 1 ms at the above.							
<b>Resistibility to shock (Pin plunger type)</b>	MIN 5G	MIN 15G	MIN 30G		MIN 5G	MIN 15G	MIN 30G	
	Open contact shall be less than 1 ms at the above conditions.							
<b>Allowable operating speed (at no load)</b>	1 to 500 mm/sec.							
<b>Max. operating cycle rate (at no load)</b>	120 times/min.							
<b>Operating temperature range</b>	-20 to +70 degree Celsius							
<b>Ambient humidity</b>	MAX 85%RH							

## □ Range of current

Contacts specification	Range of current				Operating force (MAX) (Pin plunger type)			
	1mA	10mA	100mA	2A	0.74N(75gf)	0.98N(100gf)	1.47N(150gf)	1.98N(200gf)
Silver alloy			↔		●			
				↔		●	●	●
Gold clad triple layer	↔	↔			●	●	●	●
Gold clad twin layer	↔	↔			●	●	●	●

□ Products line

◇ Silver alloy contact type (Lead wire terminal, PC board terminal, #110 Quick-connect terminal)

Transfer type : MQS-55[ ]-\_-\_-R ([ ] is blank)

COM-NO type : MQS-55[A]-\_-\_- (A in [ ])

Actuator	No	Operating force (MAX)	*Approved standard	Lead wire terminal	PC board terminal	#110 Quick-connect terminal
			C-UL	Products No.	Products No.	Products No.
Pin plunger type (Blank)	1	0.74N	-	MQS-55[ ]-1-[ ]	MQS-55[ ]-1-P-[ ]	MQS-55[ ]-1-F-[ ]
		0.98N	2	MQS-55[ ]-3-[ ]	MQS-55[ ]-3-P-[ ]	MQS-55[ ]-3-F-[ ]
		1.47N	2	MQS-55[ ]-5-[ ]	MQS-55[ ]-5-P-[ ]	MQS-55[ ]-5-F-[ ]
		1.98N	2	MQS-55[ ]-7-[ ]	MQS-55[ ]-7-P-[ ]	MQS-55[ ]-7-F-[ ]
Hinge short lever (L1)	2	0.29N	-	MQS-55[ ]-1L1-[ ]	MQS-55[ ]-1L1-P-[ ]	MQS-55[ ]-1L1-F-[ ]
		0.39N	2	MQS-55[ ]-3L1-[ ]	MQS-55[ ]-3L1-P-[ ]	MQS-55[ ]-3L1-F-[ ]
		0.59N	2	MQS-55[ ]-5L1-[ ]	MQS-55[ ]-5L1-P-[ ]	MQS-55[ ]-5L1-F-[ ]
		0.78N	2	MQS-55[ ]-7L1-[ ]	MQS-55[ ]-7L1-P-[ ]	MQS-55[ ]-7L1-F-[ ]
Hinge lever (L)	3	0.27N	-	MQS-55[ ]-1L-[ ]	MQS-55[ ]-1L-P-[ ]	MQS-55[ ]-1L-F-[ ]
		0.34N	2	MQS-55[ ]-3L-[ ]	MQS-55[ ]-3L-P-[ ]	MQS-55[ ]-3L-F-[ ]
		0.54N	2	MQS-55[ ]-5L-[ ]	MQS-55[ ]-5L-P-[ ]	MQS-55[ ]-5L-F-[ ]
		0.69N	2	MQS-55[ ]-7L-[ ]	MQS-55[ ]-7L-P-[ ]	MQS-55[ ]-7L-F-[ ]
Hinge long lever (L2)	4	0.25N	2	MQS-55[ ]-3L2-[ ]	MQS-55[ ]-3L2-P-[ ]	MQS-55[ ]-3L2-F-[ ]
		0.44N	2	MQS-55[ ]-5L2-[ ]	MQS-55[ ]-5L2-P-[ ]	MQS-55[ ]-5L2-F-[ ]
		0.49N	2	MQS-55[ ]-7L2-[ ]	MQS-55[ ]-7L2-P-[ ]	MQS-55[ ]-7L2-F-[ ]
Hinge long lever (L3)	5	0.20N	2	MQS-55[ ]-3L3-[ ]	MQS-55[ ]-3L3-P-[ ]	MQS-55[ ]-3L3-F-[ ]
		0.29N	2	MQS-55[ ]-5L3-[ ]	MQS-55[ ]-5L3-P-[ ]	MQS-55[ ]-5L3-F-[ ]
		0.39N	2	MQS-55[ ]-7L3-[ ]	MQS-55[ ]-7L3-P-[ ]	MQS-55[ ]-7L3-F-[ ]
Hinge R2.5 lever (D)	6	0.27N	-	MQS-55[ ]-1D-[ ]	MQS-55[ ]-1D-P-[ ]	MQS-55[ ]-1D-F-[ ]
		0.34N	2	MQS-55[ ]-3D-[ ]	MQS-55[ ]-3D-P-[ ]	MQS-55[ ]-3D-F-[ ]
		0.54N	2	MQS-55[ ]-5D-[ ]	MQS-55[ ]-5D-P-[ ]	MQS-55[ ]-5D-F-[ ]
		0.69N	2	MQS-55[ ]-7D-[ ]	MQS-55[ ]-7D-P-[ ]	MQS-55[ ]-7D-F-[ ]
Hinge R1.3 lever (D3)	7	0.27N	-	MQS-55[ ]-1D3-[ ]	MQS-55[ ]-1D3-P-[ ]	MQS-55[ ]-1D3-F-[ ]
		0.34N	2	MQS-55[ ]-3D3-[ ]	MQS-55[ ]-3D3-P-[ ]	MQS-55[ ]-3D3-F-[ ]
		0.54N	2	MQS-55[ ]-5D3-[ ]	MQS-55[ ]-5D3-P-[ ]	MQS-55[ ]-5D3-F-[ ]
		0.69N	2	MQS-55[ ]-7D3-[ ]	MQS-55[ ]-7D3-P-[ ]	MQS-55[ ]-7D3-F-[ ]
Hinge roller lever (D2)	8	0.29N	-	MQS-55[ ]-1D2-[ ]	MQS-55[ ]-1D2-P-[ ]	MQS-55[ ]-1D2-F-[ ]
		0.39N	2	MQS-55[ ]-3D2-[ ]	MQS-55[ ]-3D2-P-[ ]	MQS-55[ ]-3D2-F-[ ]
		0.59N	2	MQS-55[ ]-5D2-[ ]	MQS-55[ ]-5D2-P-[ ]	MQS-55[ ]-5D2-F-[ ]
		0.78N	2	MQS-55[ ]-7D2-[ ]	MQS-55[ ]-7D2-P-[ ]	MQS-55[ ]-7D2-F-[ ]

\* The number represents ratings. 1 : 0.1A 30V DC / 0.1A 125V AC  
 2 : 2A 250V AC / 2A 30V DC

◇ Silver alloy contact type (PC board terminal Right/Left angle, Water protected terminal)

Transfer type : MQS-55[ ]-\_-\_-R ([ ] is blank)

COM-NO type : MQS-55[A]-\_-\_- (A in [ ])

Actuator	No	Operating force (MAX)	*Approved standard	PC board terminal right angle	PC board terminal left angle	Water protected terminal
			C-UL	Products No.	Products No.	Products No.
Pin plunger type (Blank)	1	0.74N	-	MQS-55[ ]-1-PR-[ ]	MQS-55[ ]-1-PL-[ ]	MQS-55[ ]-1-W-[ ]
		0.98N	2	MQS-55[ ]-3-PR-[ ]	MQS-55[ ]-3-PL-[ ]	MQS-55[ ]-3-W-[ ]
		1.47N	2	MQS-55[ ]-5-PR-[ ]	MQS-55[ ]-5-PL-[ ]	MQS-55[ ]-5-W-[ ]
		1.98N	2	MQS-55[ ]-7-PR-[ ]	MQS-55[ ]-7-PL-[ ]	MQS-55[ ]-7-W-[ ]
Hinge short lever (L1)	2	0.29N	-	MQS-55[ ]-1L1-PR-[ ]	MQS-55[ ]-1L1-PL-[ ]	MQS-55[ ]-1L1-W-[ ]
		0.39N	2	MQS-55[ ]-3L1-PR-[ ]	MQS-55[ ]-3L1-PL-[ ]	MQS-55[ ]-3L1-W-[ ]
		0.59N	2	MQS-55[ ]-5L1-PR-[ ]	MQS-55[ ]-5L1-PL-[ ]	MQS-55[ ]-5L1-W-[ ]
		0.78N	2	MQS-55[ ]-7L1-PR-[ ]	MQS-55[ ]-7L1-PL-[ ]	MQS-55[ ]-7L1-W-[ ]
Hinge lever (L)	3	0.27N	2	MQS-55[ ]-1L-PR-[ ]	MQS-55[ ]-1L-PL-[ ]	MQS-55[ ]-1L-W-[ ]
		0.34N	2	MQS-55[ ]-3L-PR-[ ]	MQS-55[ ]-3L-PL-[ ]	MQS-55[ ]-3L-W-[ ]
		0.54N	2	MQS-55[ ]-5L-PR-[ ]	MQS-55[ ]-5L-PL-[ ]	MQS-55[ ]-5L-W-[ ]
		0.69N	2	MQS-55[ ]-7L-PR-[ ]	MQS-55[ ]-7L-PL-[ ]	MQS-55[ ]-7L-W-[ ]
Hinge long lever (L2)	4	0.25N	2	MQS-55[ ]-3L2-PR-[ ]	MQS-55[ ]-3L2-PL-[ ]	MQS-55[ ]-3L2-W-[ ]
		0.44N	2	MQS-55[ ]-5L2-PR-[ ]	MQS-55[ ]-5L2-PL-[ ]	MQS-55[ ]-5L2-W-[ ]
		0.49N	2	MQS-55[ ]-7L2-PR-[ ]	MQS-55[ ]-7L2-PL-[ ]	MQS-55[ ]-7L2-W-[ ]
Hinge long lever (L3)	5	0.20N	2	MQS-55[ ]-3L3-PR-[ ]	MQS-55[ ]-3L3-PL-[ ]	MQS-55[ ]-3L3-W-[ ]
		0.29N	2	MQS-55[ ]-5L3-PR-[ ]	MQS-55[ ]-5L3-PL-[ ]	MQS-55[ ]-5L3-W-[ ]
		0.39N	2	MQS-55[ ]-7L3-PR-[ ]	MQS-55[ ]-7L3-PL-[ ]	MQS-55[ ]-7L3-W-[ ]
Hinge R2.5 lever (D)	6	0.27N	-	MQS-55[ ]-1D-PR-[ ]	MQS-55[ ]-1D-PL-[ ]	MQS-55[ ]-1D-W-[ ]
		0.34N	2	MQS-55[ ]-3D-PR-[ ]	MQS-55[ ]-3D-PL-[ ]	MQS-55[ ]-3D-W-[ ]
		0.54N	2	MQS-55[ ]-5D-PR-[ ]	MQS-55[ ]-5D-PL-[ ]	MQS-55[ ]-5D-W-[ ]
		0.69N	2	MQS-55[ ]-7D-PR-[ ]	MQS-55[ ]-7D-PL-[ ]	MQS-55[ ]-7D-W-[ ]
Hinge R1.3 lever (D3)	7	0.27N	-	MQS-55[ ]-1D3-PR-[ ]	MQS-55[ ]-1D3-PL-[ ]	MQS-55[ ]-1D3-W-[ ]
		0.34N	2	MQS-55[ ]-3D3-PR-[ ]	MQS-55[ ]-3D3-PL-[ ]	MQS-55[ ]-3D3-W-[ ]
		0.54N	2	MQS-55[ ]-5D3-PR-[ ]	MQS-55[ ]-5D3-PL-[ ]	MQS-55[ ]-5D3-W-[ ]
		0.69N	2	MQS-55[ ]-7D3-PR-[ ]	MQS-55[ ]-7D3-PL-[ ]	MQS-55[ ]-7D3-W-[ ]
Hinge roller lever (D2)	8	0.29N	-	MQS-55[ ]-1D2-PR-[ ]	MQS-55[ ]-1D2-PL-[ ]	MQS-55[ ]-1D2-W-[ ]
		0.39N	2	MQS-55[ ]-3D2-PR-[ ]	MQS-55[ ]-3D2-PL-[ ]	MQS-55[ ]-3D2-W-[ ]
		0.59N	2	MQS-55[ ]-5D2-PR-[ ]	MQS-55[ ]-5D2-PL-[ ]	MQS-55[ ]-5D2-W-[ ]
		0.78N	2	MQS-55[ ]-7D2-PR-[ ]	MQS-55[ ]-7D2-PL-[ ]	MQS-55[ ]-7D2-W-[ ]

\* The number represents ratings.

1 : 0.1A 30V DC / 0.1A 125V AC

2 : 2A 250V AC / 2A 30V DC

◇Gold clad triple layer contact type (Lead wire terminal, PC board terminal, #110 Quick-connect terminal)

Transfer type : MQS-55[ ]-[\_]AU-[\_]R ([ ] is blank)

COM-NO type : MQS-55[A]-[\_]AU-[\_] (A in [ ])

Actuator	No	Operating force (MAX)	*Approved standard	Lead wire terminal	PC board terminal	#110 Quick-connect terminal
			C-UL	Products No.	Products No.	Products No.
Pin plunger type (Blank)	1	0.74N	-	MQS-55[ ]-1AU-[ ]	MQS-55[ ]-1AU-P-[ ]	MQS-55[ ]-1AU-F-[ ]
		0.98N	1	MQS-55[ ]-3AU-[ ]	MQS-55[ ]-3AU-P-[ ]	MQS-55[ ]-3AU-F-[ ]
		1.47N	1	MQS-55[ ]-5AU-[ ]	MQS-55[ ]-5AU-P-[ ]	MQS-55[ ]-5AU-F-[ ]
		1.98N	1	MQS-55[ ]-7AU-[ ]	MQS-55[ ]-7AU-P-[ ]	MQS-55[ ]-7AU-F-[ ]
Hinge short lever (L1)	2	0.29N	-	MQS-55[ ]-1L1AU-[ ]	MQS-55[ ]-1L1AU-P-[ ]	MQS-55[ ]-1L1AU-F-[ ]
		0.39N	1	MQS-55[ ]-3L1AU-[ ]	MQS-55[ ]-3L1AU-P-[ ]	MQS-55[ ]-3L1AU-F-[ ]
		0.59N	1	MQS-55[ ]-5L1AU-[ ]	MQS-55[ ]-5L1AU-P-[ ]	MQS-55[ ]-5L1AU-F-[ ]
		0.78N	1	MQS-55[ ]-7L1AU-[ ]	MQS-55[ ]-7L1AU-P-[ ]	MQS-55[ ]-7L1AU-F-[ ]
Hinge lever (L)	3	0.27N	-	MQS-55[ ]-1LAU-[ ]	MQS-55[ ]-1LAU-P-[ ]	MQS-55[ ]-1LAU-F-[ ]
		0.34N	1	MQS-55[ ]-3LAU-[ ]	MQS-55[ ]-3LAU-P-[ ]	MQS-55[ ]-3LAU-F-[ ]
		0.54N	1	MQS-55[ ]-5LAU-[ ]	MQS-55[ ]-5LAU-P-[ ]	MQS-55[ ]-5LAU-F-[ ]
		0.69N	1	MQS-55[ ]-7LAU-[ ]	MQS-55[ ]-7LAU-P-[ ]	MQS-55[ ]-7LAU-F-[ ]
Hinge long lever (L2)	4	0.25N	1	MQS-55[ ]-3L2AU-[ ]	MQS-55[ ]-3L2AU-P-[ ]	MQS-55[ ]-3L2AU-F-[ ]
		0.44N	1	MQS-55[ ]-5L2AU-[ ]	MQS-55[ ]-5L2AU-P-[ ]	MQS-55[ ]-5L2AU-F-[ ]
		0.49N	1	MQS-55[ ]-7L2AU-[ ]	MQS-55[ ]-7L2AU-P-[ ]	MQS-55[ ]-7L2AU-F-[ ]
Hinge long lever (L3)	5	0.20N	1	MQS-55[ ]-3L3AU-[ ]	MQS-55[ ]-3L3AU-P-[ ]	MQS-55[ ]-3L3AU-F-[ ]
		0.29N	1	MQS-55[ ]-5L3AU-[ ]	MQS-55[ ]-5L3AU-P-[ ]	MQS-55[ ]-5L3AU-F-[ ]
		0.39N	1	MQS-55[ ]-7L3AU-[ ]	MQS-55[ ]-7L3AU-P-[ ]	MQS-55[ ]-7L3AU-F-[ ]
Hinge R2.5 lever (D)	6	0.27N	-	MQS-55[ ]-1DAU-[ ]	MQS-55[ ]-1DAU-P-[ ]	MQS-55[ ]-1DAU-F-[ ]
		0.34N	1	MQS-55[ ]-3DAU-[ ]	MQS-55[ ]-3DAU-P-[ ]	MQS-55[ ]-3DAU-F-[ ]
		0.54N	1	MQS-55[ ]-5DAU-[ ]	MQS-55[ ]-5DAU-P-[ ]	MQS-55[ ]-5DAU-F-[ ]
		0.69N	1	MQS-55[ ]-7DAU-[ ]	MQS-55[ ]-7DAU-P-[ ]	MQS-55[ ]-7DAU-F-[ ]
Hinge R1.3 lever (D3)	7	0.27N	-	MQS-55[ ]-1D3AU-[ ]	MQS-55[ ]-1D3AU-P-[ ]	MQS-55[ ]-1D3AU-F-[ ]
		0.34N	1	MQS-55[ ]-3D3AU-[ ]	MQS-55[ ]-3D3AU-P-[ ]	MQS-55[ ]-3D3AU-F-[ ]
		0.54N	1	MQS-55[ ]-5D3AU-[ ]	MQS-55[ ]-5D3AU-P-[ ]	MQS-55[ ]-5D3AU-F-[ ]
		0.69N	1	MQS-55[ ]-7D3AU-[ ]	MQS-55[ ]-7D3AU-P-[ ]	MQS-55[ ]-7D3AU-F-[ ]
Hinge roller lever (D2)	8	0.29N	-	MQS-55[ ]-1D2AU-[ ]	MQS-55[ ]-1D2AU-P-[ ]	MQS-55[ ]-1D2AU-F-[ ]
		0.39N	1	MQS-55[ ]-3D2AU-[ ]	MQS-55[ ]-3D2AU-P-[ ]	MQS-55[ ]-3D2AU-F-[ ]
		0.59N	1	MQS-55[ ]-5D2AU-[ ]	MQS-55[ ]-5D2AU-P-[ ]	MQS-55[ ]-5D2AU-F-[ ]
		0.78N	1	MQS-55[ ]-7D2AU-[ ]	MQS-55[ ]-7D2AU-P-[ ]	MQS-55[ ]-7D2AU-F-[ ]

\* The number represents ratings.

1 : 0.1A 30V DC / 0.1A 125V AC

2 : 2A 250V AC / 2A 30V DC

◇Gold clad triple layer contact type (PC board terminal Right/Left angle, Water protected terminal)

Transfer type : MQS-55[ ]- \_AU-\_-R ([ ] is blank)

COM-NO type : MQS-55[A]- \_AU-\_- (A in [ ])

Actuator	No	Operating force (MAX)	*Approved standard	PC board terminal right angle	PC board terminal left angle	Water protected terminal
			C-UL	Products No.	Products No.	Products No.
Pin plunger type (Blank)	1	0.74N	-	MQS-55[ ]-1AU-PR-[ ]	MQS-55[ ]-1AU-PL-[ ]	MQS-55[ ]-1AU-W-[ ]
		0.98N	1	MQS-55[ ]-3AU-PR-[ ]	MQS-55[ ]-3AU-PL-[ ]	MQS-55[ ]-3AU-W-[ ]
		1.47N	1	MQS-55[ ]-5AU-PR-[ ]	MQS-55[ ]-5AU-PL-[ ]	MQS-55[ ]-5AU-W-[ ]
		1.98N	1	MQS-55[ ]-7AU-PR-[ ]	MQS-55[ ]-7AU-PL-[ ]	MQS-55[ ]-7AU-W-[ ]
Hinge short lever (L1)	2	0.29N	-	MQS-55[ ]-1L1AU-PR-[ ]	MQS-55[ ]-1L1AU-PL-[ ]	MQS-55[ ]-1L1AU-W-[ ]
		0.39N	1	MQS-55[ ]-3L1AU-PR-[ ]	MQS-55[ ]-3L1AU-PL-[ ]	MQS-55[ ]-3L1AU-W-[ ]
		0.59N	1	MQS-55[ ]-5L1AU-PR-[ ]	MQS-55[ ]-5L1AU-PL-[ ]	MQS-55[ ]-5L1AU-W-[ ]
		0.78N	1	MQS-55[ ]-7L1AU-PR-[ ]	MQS-55[ ]-7L1AU-PL-[ ]	MQS-55[ ]-7L1AU-W-[ ]
Hinge lever (L)	3	0.27N	-	MQS-55[ ]-1LAU-PR-[ ]	MQS-55[ ]-1LAU-PL-[ ]	MQS-55[ ]-1LAU-W-[ ]
		0.34N	1	MQS-55[ ]-3LAU-PR-[ ]	MQS-55[ ]-3LAU-PL-[ ]	MQS-55[ ]-3LAU-W-[ ]
		0.54N	1	MQS-55[ ]-5LAU-PR-[ ]	MQS-55[ ]-5LAU-PL-[ ]	MQS-55[ ]-5LAU-W-[ ]
		0.69N	1	MQS-55[ ]-7LAU-PR-[ ]	MQS-55[ ]-7LAU-PL-[ ]	MQS-55[ ]-7LAU-W-[ ]
Hinge long lever (L2)	4	0.25N	1	MQS-55[ ]-3L2AU-PR-[ ]	MQS-55[ ]-3L2AU-PL-[ ]	MQS-55[ ]-3L2AU-W-[ ]
		0.44N	1	MQS-55[ ]-5L2AU-PR-[ ]	MQS-55[ ]-5L2AU-PL-[ ]	MQS-55[ ]-5L2AU-W-[ ]
		0.49N	1	MQS-55[ ]-7L2AU-PR-[ ]	MQS-55[ ]-7L2AU-PL-[ ]	MQS-55[ ]-7L2AU-W-[ ]
Hinge long lever (L3)	5	0.20N	1	MQS-55[ ]-3L3AU-PR-[ ]	MQS-55[ ]-3L3AU-PL-[ ]	MQS-55[ ]-3L3AU-W-[ ]
		0.29N	1	MQS-55[ ]-5L3AU-PR-[ ]	MQS-55[ ]-5L3AU-PL-[ ]	MQS-55[ ]-5L3AU-W-[ ]
		0.39N	1	MQS-55[ ]-7L3AU-PR-[ ]	MQS-55[ ]-7L3AU-PL-[ ]	MQS-55[ ]-7L3AU-W-[ ]
Hinge R2.5 lever (D)	6	0.27N	-	MQS-55[ ]-1DAU-PR-[ ]	MQS-55[ ]-1DAU-PL-[ ]	MQS-55[ ]-1DAU-W-[ ]
		0.34N	1	MQS-55[ ]-3DAU-PR-[ ]	MQS-55[ ]-3DAU-PL-[ ]	MQS-55[ ]-3DAU-W-[ ]
		0.54N	1	MQS-55[ ]-5DAU-PR-[ ]	MQS-55[ ]-5DAU-PL-[ ]	MQS-55[ ]-5DAU-W-[ ]
		0.69N	1	MQS-55[ ]-7DAU-PR-[ ]	MQS-55[ ]-7DAU-PL-[ ]	MQS-55[ ]-7DAU-W-[ ]
Hinge R1.3 lever (D3)	7	0.27N	-	MQS-55[ ]-1D3AU-PR-[ ]	MQS-55[ ]-1D3AU-PL-[ ]	MQS-55[ ]-1D3AU-W-[ ]
		0.34N	1	MQS-55[ ]-3D3AU-PR-[ ]	MQS-55[ ]-3D3AU-PL-[ ]	MQS-55[ ]-3D3AU-W-[ ]
		0.54N	1	MQS-55[ ]-5D3AU-PR-[ ]	MQS-55[ ]-5D3AU-PL-[ ]	MQS-55[ ]-5D3AU-W-[ ]
		0.69N	1	MQS-55[ ]-7D3AU-PR-[ ]	MQS-55[ ]-7D3AU-PL-[ ]	MQS-55[ ]-7D3AU-W-[ ]
Hinge roller lever (D2)	8	0.29N	-	MQS-55[ ]-1D2AU-PR-[ ]	MQS-55[ ]-1D2AU-PL-[ ]	MQS-55[ ]-1D2AU-W-[ ]
		0.39N	1	MQS-55[ ]-3D2AU-PR-[ ]	MQS-55[ ]-3D2AU-PL-[ ]	MQS-55[ ]-3D2AU-W-[ ]
		0.59N	1	MQS-55[ ]-5D2AU-PR-[ ]	MQS-55[ ]-5D2AU-PL-[ ]	MQS-55[ ]-5D2AU-W-[ ]
		0.78N	1	MQS-55[ ]-7D2AU-PR-[ ]	MQS-55[ ]-7D2AU-PL-[ ]	MQS-55[ ]-7D2AU-W-[ ]

\* The number represents ratings.

1 : 0.1A 30V DC / 0.1A 125V AC

2 : 2A 250V AC / 2A 30V DC

◇Gold clad twin layer contact type (Lead wire terminal, PC board terminal, #110 Quick-connect terminal)

Transfer type : MQS-55[ ]-\_-AU-\_-R ([ ] is blank)

COM-NO type : MQS-55[A]-\_-AU-\_- (A in [ ])

Actuator	No	Operating force (MAX)	*Approved standard	Lead wire terminal	PC board terminal	#110 Quick-connect terminal
			C-UL	Products No.	Products No.	Products No.
Pin plunger type (Blank)	1	0.74N	-	MQS-55[ ]-1U2-[ ]	MQS-55[ ]-1U2-P-[ ]	MQS-55[ ]-1U2-F-[ ]
		0.98N	-	MQS-55[ ]-3U2-[ ]	MQS-55[ ]-3U2-P-[ ]	MQS-55[ ]-3U2-F-[ ]
		1.47N	-	MQS-55[ ]-5U2-[ ]	MQS-55[ ]-5U2-P-[ ]	MQS-55[ ]-5U2-F-[ ]
		1.98N	-	MQS-55[ ]-7U2-[ ]	MQS-55[ ]-7U2-P-[ ]	MQS-55[ ]-7U2-F-[ ]
Hinge short lever (L1)	2	0.29N	-	MQS-55[ ]-1L1U2-[ ]	MQS-55[ ]-1L1U2-P-[ ]	MQS-55[ ]-1L1U2-F-[ ]
		0.39N	-	MQS-55[ ]-3L1U2-[ ]	MQS-55[ ]-3L1U2-P-[ ]	MQS-55[ ]-3L1U2-F-[ ]
		0.59N	-	MQS-55[ ]-5L1U2-[ ]	MQS-55[ ]-5L1U2-P-[ ]	MQS-55[ ]-5L1U2-F-[ ]
		0.78N	-	MQS-55[ ]-7L1U2-[ ]	MQS-55[ ]-7L1U2-P-[ ]	MQS-55[ ]-7L1U2-F-[ ]
Hinge lever (L)	3	0.27N	-	MQS-55[ ]-1LU2-[ ]	MQS-55[ ]-1LU2-P-[ ]	MQS-55[ ]-1LU2-F-[ ]
		0.34N	-	MQS-55[ ]-3LU2-[ ]	MQS-55[ ]-3LU2-P-[ ]	MQS-55[ ]-3LU2-F-[ ]
		0.54N	-	MQS-55[ ]-5LU2-[ ]	MQS-55[ ]-5LU2-P-[ ]	MQS-55[ ]-5LU2-F-[ ]
		0.69N	-	MQS-55[ ]-7LU2-[ ]	MQS-55[ ]-7LU2-P-[ ]	MQS-55[ ]-7LU2-F-[ ]
Hinge long lever (L2)	4	0.25N	-	MQS-55[ ]-3L2U2-[ ]	MQS-55[ ]-3L2U2-P-[ ]	MQS-55[ ]-3L2U2-F-[ ]
		0.44N	-	MQS-55[ ]-5L2U2-[ ]	MQS-55[ ]-5L2U2-P-[ ]	MQS-55[ ]-5L2U2-F-[ ]
		0.49N	-	MQS-55[ ]-7L2U2-[ ]	MQS-55[ ]-7L2U2-P-[ ]	MQS-55[ ]-7L2U2-F-[ ]
Hinge long lever (L3)	5	0.20N	-	MQS-55[ ]-3L3U2-[ ]	MQS-55[ ]-3L3U2-P-[ ]	MQS-55[ ]-3L3U2-F-[ ]
		0.29N	-	MQS-55[ ]-5L3U2-[ ]	MQS-55[ ]-5L3U2-P-[ ]	MQS-55[ ]-5L3U2-F-[ ]
		0.39N	-	MQS-55[ ]-7L3U2-[ ]	MQS-55[ ]-7L3U2-P-[ ]	MQS-55[ ]-7L3U2-F-[ ]
Hinge R2.5 lever (D)	6	0.27N	-	MQS-55[ ]-1DU2-[ ]	MQS-55[ ]-1DU2-P-[ ]	MQS-55[ ]-1DU2-F-[ ]
		0.34N	-	MQS-55[ ]-3DU2-[ ]	MQS-55[ ]-3DU2-P-[ ]	MQS-55[ ]-3DU2-F-[ ]
		0.54N	-	MQS-55[ ]-5DU2-[ ]	MQS-55[ ]-5DU2-P-[ ]	MQS-55[ ]-5DU2-F-[ ]
		0.69N	-	MQS-55[ ]-7DU2-[ ]	MQS-55[ ]-7DU2-P-[ ]	MQS-55[ ]-7DU2-F-[ ]
Hinge R1.3 lever (D3)	7	0.27N	-	MQS-55[ ]-1D3U2-[ ]	MQS-55[ ]-1D3U2-P-[ ]	MQS-55[ ]-1D3U2-F-[ ]
		0.34N	-	MQS-55[ ]-3D3U2-[ ]	MQS-55[ ]-3D3U2-P-[ ]	MQS-55[ ]-3D3U2-F-[ ]
		0.54N	-	MQS-55[ ]-5D3U2-[ ]	MQS-55[ ]-5D3U2-P-[ ]	MQS-55[ ]-5D3U2-F-[ ]
		0.69N	-	MQS-55[ ]-7D3U2-[ ]	MQS-55[ ]-7D3U2-P-[ ]	MQS-55[ ]-7D3U2-F-[ ]
Hinge roller lever (D2)	8	0.29N	-	MQS-55[ ]-1D2U2-[ ]	MQS-55[ ]-1D2U2-P-[ ]	MQS-55[ ]-1D2U2-F-[ ]
		0.39N	-	MQS-55[ ]-3D2U2-[ ]	MQS-55[ ]-3D2U2-P-[ ]	MQS-55[ ]-3D2U2-F-[ ]
		0.59N	-	MQS-55[ ]-5D2U2-[ ]	MQS-55[ ]-5D2U2-P-[ ]	MQS-55[ ]-5D2U2-F-[ ]
		0.78N	-	MQS-55[ ]-7D2U2-[ ]	MQS-55[ ]-7D2U2-P-[ ]	MQS-55[ ]-7D2U2-F-[ ]

\* The number represents ratings.

1 : 0.1A 30V DC / 0.1A 125V AC

2 : 2A 250V AC / 2A 30V DC

◇ Gold clad twin layer contact type (PC board terminal Right/Left angle, Water protected terminal)

Transfer type : MQS-55[ ]-AU-\_-R ([ ] is blank)

COM-NO type : MQS-55[A]-\_-AU-\_- (A in [ ])

Actuator	No	Operating force (MAX)	*Approved standard	PC board terminal right angle	PC board terminal left angle	Water protected terminal
			C-UL	Products No.	Products No.	Products No.
Pin plunger type (Blank)	1	0.74N	-	MQS-55[ ]-1U2-PR-[ ]	MQS-55[ ]-1U2-PL-[ ]	MQS-55[ ]-1U2-W-[ ]
		0.98N	-	MQS-55[ ]-3U2-PR-[ ]	MQS-55[ ]-3U2-PL-[ ]	MQS-55[ ]-3U2-W-[ ]
		1.47N	-	MQS-55[ ]-5U2-PR-[ ]	MQS-55[ ]-5U2-PL-[ ]	MQS-55[ ]-5U2-W-[ ]
		1.98N	-	MQS-55[ ]-7U2-PR-[ ]	MQS-55[ ]-7U2-PL-[ ]	MQS-55[ ]-7U2-W-[ ]
Hinge short lever (L1)	2	0.29N	-	MQS-55[ ]-1L1U2-PR-[ ]	MQS-55[ ]-1L1U2-PL-[ ]	MQS-55[ ]-1L1U2-W-[ ]
		0.39N	-	MQS-55[ ]-3L1U2-PR-[ ]	MQS-55[ ]-3L1U2-PL-[ ]	MQS-55[ ]-3L1U2-W-[ ]
		0.59N	-	MQS-55[ ]-5L1U2-PR-[ ]	MQS-55[ ]-5L1U2-PL-[ ]	MQS-55[ ]-5L1U2-W-[ ]
		0.78N	-	MQS-55[ ]-7L1U2-PR-[ ]	MQS-55[ ]-7L1U2-PL-[ ]	MQS-55[ ]-7L1U2-W-[ ]
Hinge lever (L)	3	0.27N	-	MQS-55[ ]-1LU2-PR-[ ]	MQS-55[ ]-1LU2-PL-[ ]	MQS-55[ ]-1LU2-W-[ ]
		0.34N	-	MQS-55[ ]-3LU2-PR-[ ]	MQS-55[ ]-3LU2-PL-[ ]	MQS-55[ ]-3LU2-W-[ ]
		0.54N	-	MQS-55[ ]-5LU2-PR-[ ]	MQS-55[ ]-5LU2-PL-[ ]	MQS-55[ ]-5LU2-W-[ ]
		0.69N	-	MQS-55[ ]-7LU2-PR-[ ]	MQS-55[ ]-7LU2-PL-[ ]	MQS-55[ ]-7LU2-W-[ ]
Hinge long lever (L2)	4	0.25N	-	MQS-55[ ]-3L2U2-PR-[ ]	MQS-55[ ]-3L2U2-PL-[ ]	MQS-55[ ]-3L2U2-W-[ ]
		0.44N	-	MQS-55[ ]-5L2U2-PR-[ ]	MQS-55[ ]-5L2U2-PL-[ ]	MQS-55[ ]-5L2U2-W-[ ]
		0.49N	-	MQS-55[ ]-7L2U2-PR-[ ]	MQS-55[ ]-7L2U2-PL-[ ]	MQS-55[ ]-7L2U2-W-[ ]
Hinge long lever (L3)	5	0.20N	-	MQS-55[ ]-3L3U2-PR-[ ]	MQS-55[ ]-3L3U2-PL-[ ]	MQS-55[ ]-3L3U2-W-[ ]
		0.29N	-	MQS-55[ ]-5L3U2-PR-[ ]	MQS-55[ ]-5L3U2-PL-[ ]	MQS-55[ ]-5L3U2-W-[ ]
		0.39N	-	MQS-55[ ]-7L3U2-PR-[ ]	MQS-55[ ]-7L3U2-PL-[ ]	MQS-55[ ]-7L3U2-W-[ ]
Hinge R2.5 lever (D)	6	0.27N	-	MQS-55[ ]-1DU2-PR-[ ]	MQS-55[ ]-1DU2-PL-[ ]	MQS-55[ ]-1DU2-W-[ ]
		0.34N	-	MQS-55[ ]-3DU2-PR-[ ]	MQS-55[ ]-3DU2-PL-[ ]	MQS-55[ ]-3DU2-W-[ ]
		0.54N	-	MQS-55[ ]-5DU2-PR-[ ]	MQS-55[ ]-5DU2-PL-[ ]	MQS-55[ ]-5DU2-W-[ ]
		0.69N	-	MQS-55[ ]-7DU2-PR-[ ]	MQS-55[ ]-7DU2-PL-[ ]	MQS-55[ ]-7DU2-W-[ ]
Hinge R1.3 lever (D3)	7	0.27N	-	MQS-55[ ]-1D3U2-PR-[ ]	MQS-55[ ]-1D3U2-PL-[ ]	MQS-55[ ]-1D3U2-W-[ ]
		0.34N	-	MQS-55[ ]-3D3U2-PR-[ ]	MQS-55[ ]-3D3U2-PL-[ ]	MQS-55[ ]-3D3U2-W-[ ]
		0.54N	-	MQS-55[ ]-5D3U2-PR-[ ]	MQS-55[ ]-5D3U2-PL-[ ]	MQS-55[ ]-5D3U2-W-[ ]
		0.69N	-	MQS-55[ ]-7D3U2-PR-[ ]	MQS-55[ ]-7D3U2-PL-[ ]	MQS-55[ ]-7D3U2-W-[ ]
Hinge roller lever (D2)	8	0.29N	-	MQS-55[ ]-1D2U2-PR-[ ]	MQS-55[ ]-1D2U2-PL-[ ]	MQS-55[ ]-1D2U2-W-[ ]
		0.39N	-	MQS-55[ ]-3D2U2-PR-[ ]	MQS-55[ ]-3D2U2-PL-[ ]	MQS-55[ ]-3D2U2-W-[ ]
		0.59N	-	MQS-55[ ]-5D2U2-PR-[ ]	MQS-55[ ]-5D2U2-PL-[ ]	MQS-55[ ]-5D2U2-W-[ ]
		0.78N	-	MQS-55[ ]-7D2U2-PR-[ ]	MQS-55[ ]-7D2U2-PL-[ ]	MQS-55[ ]-7D2U2-W-[ ]

\* The number represents ratings.

1 : 0.1A 30V DC / 0.1A 125V AC

2 : 2A 250V AC / 2A 30V DC



□ 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)	1	0.74N(75gf)	0.098N(10gf)	0.6mm	0.1mm	0.4mm	8.4 plus or minus 0.3mm
	3	0.98N(100gf)	0.147N(15 gf)				
	5	1.47N(150gf)	0.196N(20gf)				
	7	1.98N(200gf)	0.245N(25gf)				
Hinge short lever (L1)	1	0.29N(30gf)	0.020N(2gf)	2.5mm	0.5mm	0.8mm	8.8 plus or minus 0.8mm
	3	0.39N(40gf)	0.034N(3.5gf)				
	5	0.59N(60gf)	0.039N(4gf)				
	7	0.78N(80gf)	0.049N(5gf)				
Hinge lever (L)	1	0.27N(28gf)	0.017N(1.7gf)	2.8mm	0.8mm	1.2mm	8.8 plus or minus 0.8mm
	3	0.34N(35gf)	0.029N(3gf)				
	5	0.54N(55gf)	0.034N(3.5gf)				
	7	0.69N(70gf)	0.039N(4gf)				
Hinge long lever (L2)	3	0.25N(25gf)	0.025N(2.5gf)	3.5mm	1.0mm	1.6mm	8.8 plus or minus 1.2mm
	5	0.44N(45gf)	0.029N(3gf)				
	7	0.49N(50gf)	0.034N(3.5gf)				
Hinge long lever (L3)	3	0.20N(20gf)	0.010N(1gf)	6.0mm	1.8mm	1.7mm	8.8 plus or minus 3.0mm
	5	0.29N(30gf)	0.015N(1.5gf)				
	7	0.39N(40gf)	0.020N(2gf)				
Hinge R2.5 lever (D)	1	0.27N(28gf)	0.017N(1.7gf)	2.8mm	0.8mm	1.2mm	11.65 plus or minus 0.8mm
	3	0.34N(35gf)	0.029N(3gf)				
	5	0.54N(55gf)	0.034N(3.5gf)				
	7	0.69N(70gf)	0.039N(4gf)				
Hinge R1.3 lever (D3)	1	0.27N(28gf)	0.017N(1.7gf)	2.8mm	0.8mm	1.2mm	10.7 plus or minus 0.8mm
	3	0.34N(35gf)	0.029N(3gf)				
	5	0.54N(55gf)	0.034N(3.5gf)				
	7	0.69N(70gf)	0.039N(4gf)				
Hinge roller lever (D2)	1	0.29N(30gf)	0.020N(2gf)	2.5mm	0.5mm	0.8mm	14.5 plus or minus 0.8mm
	3	0.39N(40gf)	0.034N(3.5gf)				
	5	0.59N(60gf)	0.039N(4gf)				
	7	0.78N(80gf)	0.049N(5gf)				

Terminal dimensions

Unit : mm

Lead wire terminal	PC board terminal
	<p>PC board pattern</p>
#110 quick-connect terminal	PC board terminal right angle
	<p>PC board pattern</p>
<p>Notes. COM-NO type is with NC terminal cut.</p>	
PC board terminal left angle	Water protected type with hermetic sealed terminal
<p>PC board pattern</p>	

**Dimensions**

Unit : mm

No	Style	Operating characteristic	
1	<p>Pin plunger type</p>	P.T. MAX	0.6mm
		M.D. MAX	0.1mm
		O.T. MIN	0.4mm
		O.P. From fixing hole	8.4 plus or minus 0.3mm
		O.P. From fixing face	11.8 plus or minus 0.4mm
2	<p>Hinge short lever L=5mm</p>	P.T. MAX	2.5mm
		M.D. MAX	0.5mm
		O.T. MIN	0.8mm
		O.P. From fixing hole	8.8 plus or minus 0.8mm
		O.P. From fixing face	12.2 plus or minus 0.9mm
3	<p>Hinge lever L=7.15mm</p>	P.T. MAX	2.8mm
		M.D. MAX	0.8mm
		O.T. MIN	1.2mm
		O.P. From fixing hole	8.8 plus or minus 0.8mm
		O.P. From fixing face	12.2 plus or minus 0.9mm

Dimensions

Unit : mm

No	Style	Operating characteristic	
4	<p>Hinge long lever L=13.1mm</p>	P.T. MAX	3.5mm
		M.D. MAX	1.0mm
		O.T. MIN	1.6mm
		O.P. From fixing hole	8.8 plus or minus 1.2mm
		O.P. From fixing face	12.2 plus or minus 1.3mm
5	<p>Hinge long lever L=26.1mm</p>	P.T. MAX	6.0mm
		M.D. MAX	1.8mm
		O.T. MIN	1.7mm
		O.P. From fixing hole	8.8 plus or minus 3.0mm
		O.P. From fixing face	12.2 plus or minus 3.1mm
6	<p>Hinge R2.5 lever L=6.3mm</p>	P.T. MAX	2.8mm
		M.D. MAX	0.8mm
		O.T. MIN	1.2mm
		O.P. From fixing hole	11.65 plus or minus 0.8mm
		O.P. From fixing face	15.05 plus or minus 0.9mm

Dimensions

Unit : mm

No	Style	Operating characteristic	
7	<p>Hinge R1.3 lever L=6.3mm</p>	P.T. MAX	2.8mm
		M.D. MAX	0.8mm
		O.T. MIN	1.2mm
		O.P. From fixing hole	10.7 plus or minus 0.8mm
		O.P. From fixing face	14.1 plus or minus 0.9mm
8	<p>Hinge roller lever L=5mm</p>	P.T. MAX	2.5mm
		M.D. MAX	0.5mm
		O.T. MIN	0.8mm
		O.P. From fixing hole	14.5 plus or minus 0.8mm
		O.P. From fixing face	17.9 plus or minus 0.9mm

Notes

- The appearance and specifications of the product may be modified without prior notice to improve its performance.
- This catalog shows only outline specifications. When using the product, please obtain formal specifications.
- Please see appendix [Cautions in Using Switches].
- Fix the switch by M2.3 screw with torque less than 29.4 N-cm(3 kg-cm)  
Fixing with spring washers and adhesive are recommended to avoid the loose of the screw.
- 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.
- O.T. (Over travel) shall be set between 80% and 100% of O.T. specifications.
- In connecting lead wires, care should be taken not to apply tension to terminal.
- 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.
- Please design usage of switch in proper operation even if any standard value of operational characteristics changes by plus or minus 20 % .
- No dust, high humidity and organic gas should be found in the storage location.
- Please confirm the performance on actual operation by simulation with actual environment environments for high reliability.