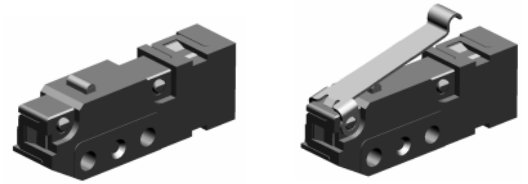


Compact-sized Snap Action Switches (Connector Connection Type) MQS-100 Series

Features

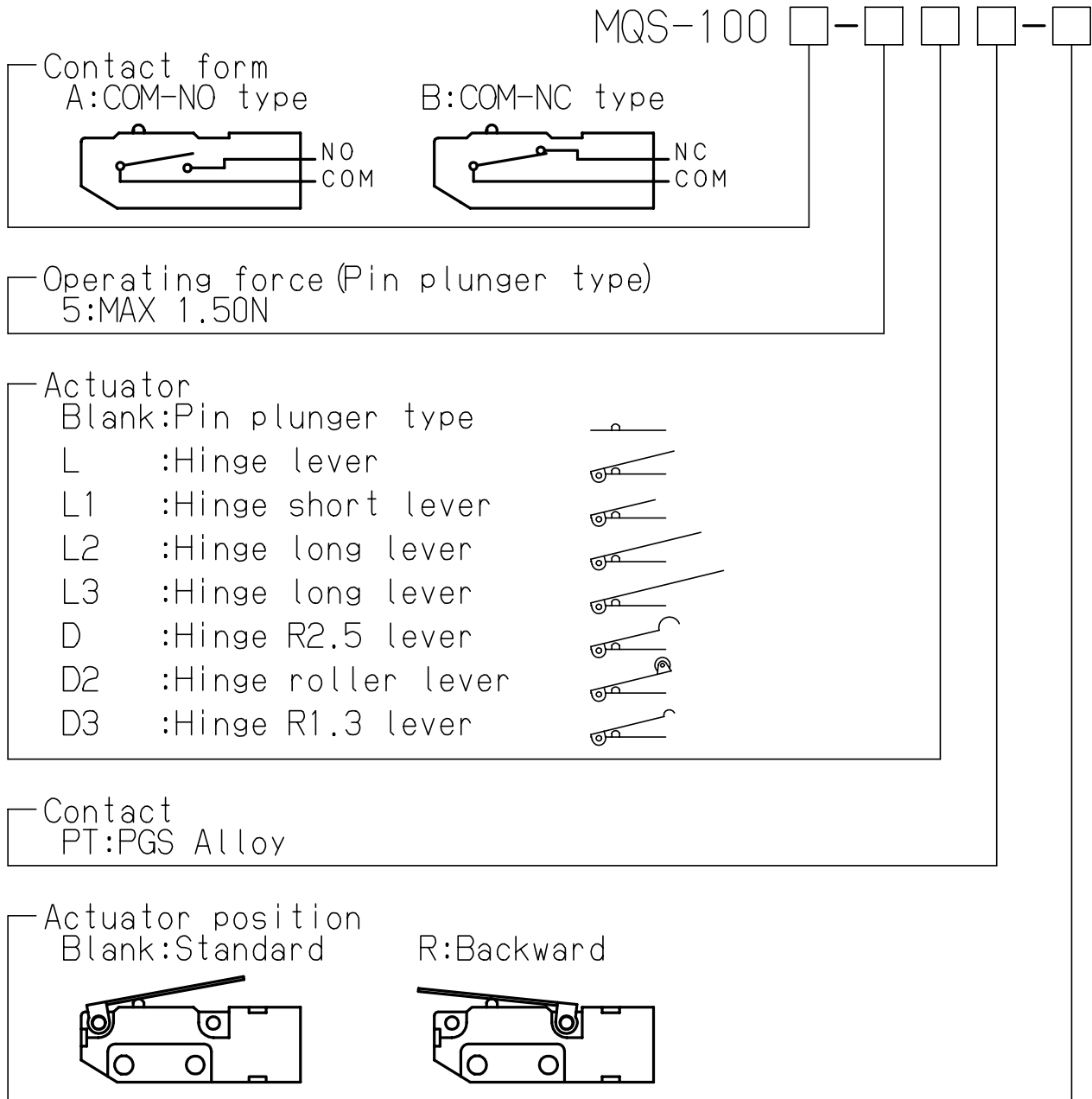
- ◇ S Model Micro Switch (Connector Connection Type).
- ◇ Mounting holes pitch is the same MQS-54/55 series.
- ◇ Mounting process is simplify by connector connection.
- ◇ Actuator position is 2 direction.



Applications

- ◇ Communication equipment (Telephone, Fax etc.)
- ◇ Home appliances (Air-conditioner, Washing machine, Cleaner etc.)
- ◇ For car (Shifter unit etc.)
- ◇ Amusement (Pachinko machine etc.)

Products Number system



□ Typical Specifications

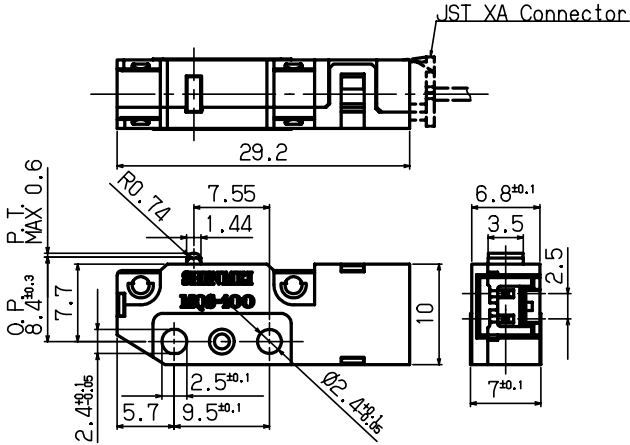
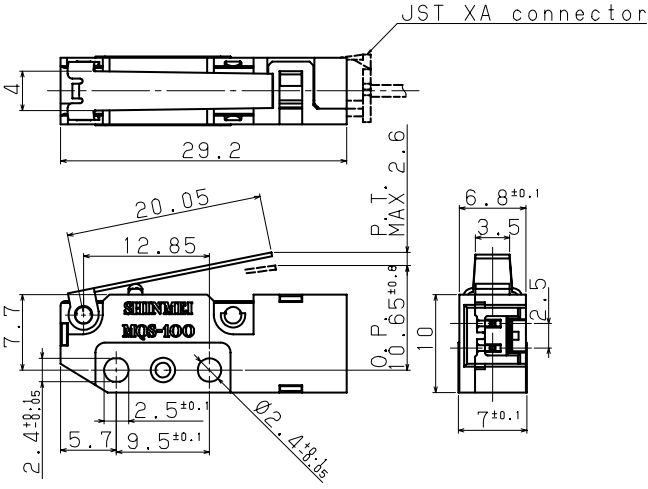
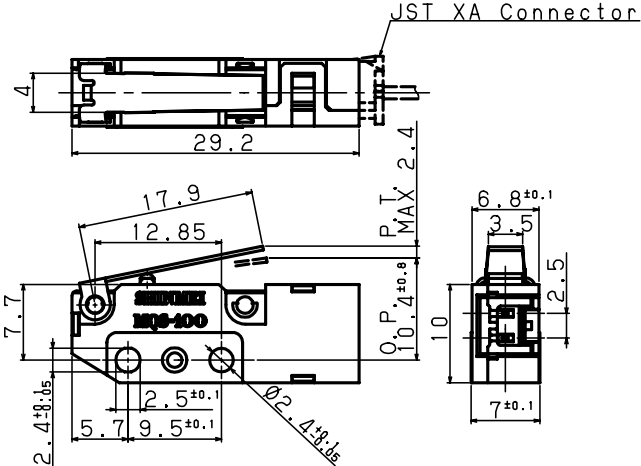
| Item | Specifications |
|--|--|
| Contact | PGS alloy contact type |
| Operating force (Pin plunger type) | MAX 1.50 N |
| Ratings (Resistive load) | 0.1A 30VDC |
| Mechanical life | 500,000 cycles |
| Electrical life | 200,000 cycles |
| Contact resistance (Initial) | MAX 100 milliohm *including lead wire and connector (AWG#28,length 50mm) |
| Insulation Resistance | MIN 100 megohm 500V DC |
| Withstanding voltage | 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 |
| Resistibility to vibration (Pin plunger type) | double amplitude : 1.5mm , frequency : 10 to 55Hz |
| Resistibility to shock (Pin plunger type) | MIN 300 m/s ² |
| Allowable operating speed (at no load) | 0.1 to 1000 mm/sec. |
| Max. operating cycle rate (at no load) | 400 times/min. |
| Operating temperature range | -25 to +85 degree Celsius |
| Ambient humidity | MAX 85%RH |

□ Operating characteristic (Actuator position Standard)

| No. | Actuator | O.F. MAX. | R.F. MIN | P.T. MAX | M.D. MAX | O.T. MIN | O.P. |
|-----|-----------------------------|-----------|----------|----------|----------|----------|----------------------------|
| 1 | Pin plunger type (Blank) | 1.50 N | 0.25 N | 0.6 mm | 0.1 mm | 0.4 mm | 8.4 plus or minus 0.3 mm |
| 2 | Hinge lever (L) | 0.60 N | 0.05 N | 2.6 mm | 0.8 mm | 1.2 mm | 10.65 plus or minus 0.8 mm |
| 3 | Hinge short lever (L1) | 0.65 N | 0.05 N | 2.4 mm | 0.5mm | 1.1 mm | 10.4 plus or minus 0.8 mm |
| 4 | Hinge long lever (L2) | 0.50 N | 0.02 N | 3.6 mm | 1.0 mm | 1.3 mm | 11.25 plus or minus 1.2 mm |
| 5 | Hinge long lever (L3) | 0.26 N | 0.01 N | 5.7 mm | 1.6mm | 2.3 mm | 12.1 plus or minus 2.2 mm |
| 6 | Hinge R2.5 lever (D) | 0.50 N | 0.06 N | 2.6 mm | 0.8 mm | 1.2 mm | 13.3 plus or minus 0.8 mm |
| 7 | Hinge roller lever (D2) | 0.50 N | 0.06 N | 2.4 mm | 0.8 mm | 1.2 mm | 15.7 plus or minus 0.8 mm |
| 8 | Hinge R1.3 lever (D3) | 0.50 N | 0.06 N | 2.6 mm | 0.8 mm | 1.2 mm | 12.2 plus or minus 0.8 mm |

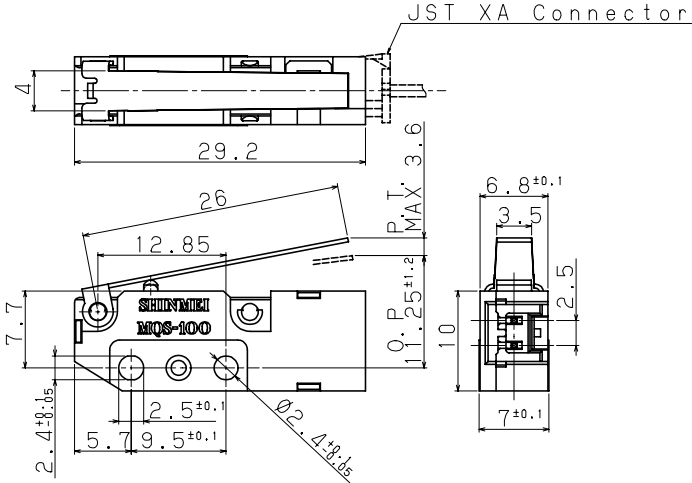
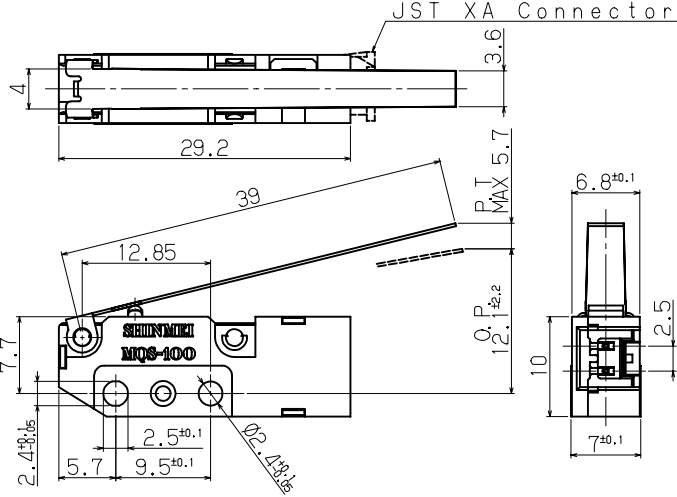
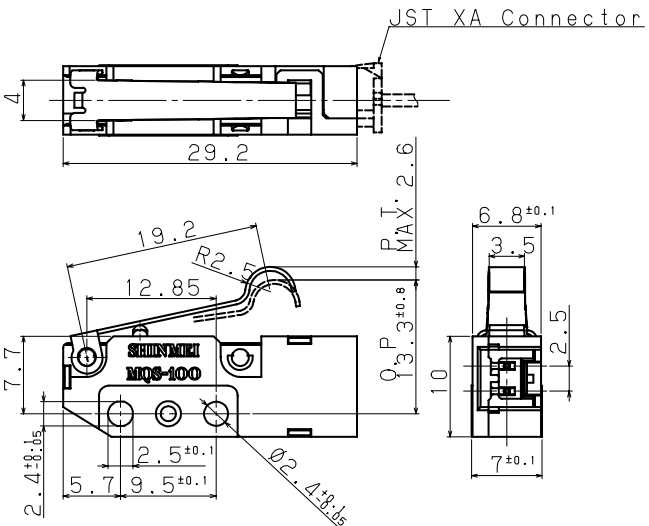
Dimensions

Unit : mm

| No | Style | Operating characteristics | |
|----|---|---------------------------|------------------------------|
| 1 | <p>Pin plunger type</p>  | P.T. MAX | 0.6 mm |
| | | M.D. MAX | 0.1 mm |
| | | O.T. MIN | 0.4 mm |
| | | O.P. From fixing hole | 8.4 plus or minus 0.3 mm |
| 2 | <p>Hinge lever (L)</p>  | P.T. MAX | 2.6mm |
| | | M.D. MAX | 0.8mm |
| | | O.T. MIN | 1.2mm |
| | | O.P. From fixing hole | 10.65 plus or minus 0.8mm |
| 3 | <p>Hinge Short lever (L1)</p>  | P.T. MAX | 2.4mm |
| | | M.D. MAX | 0.5mm |
| | | O.T. MIN | 1.1mm |
| | | O.P. From fixing hole | 10.4 plus or minus 0.8mm |

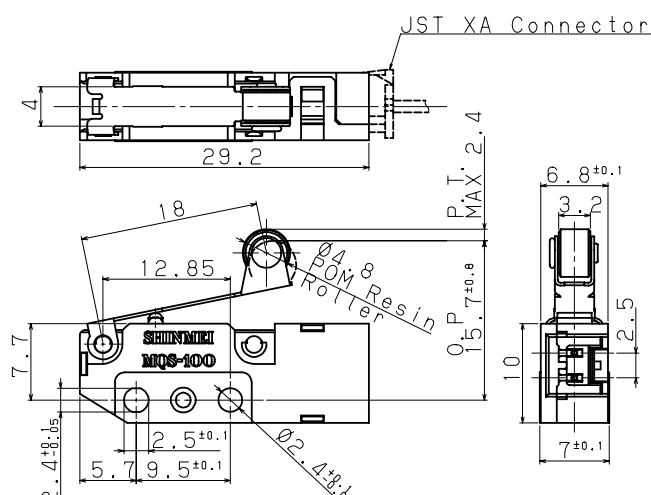
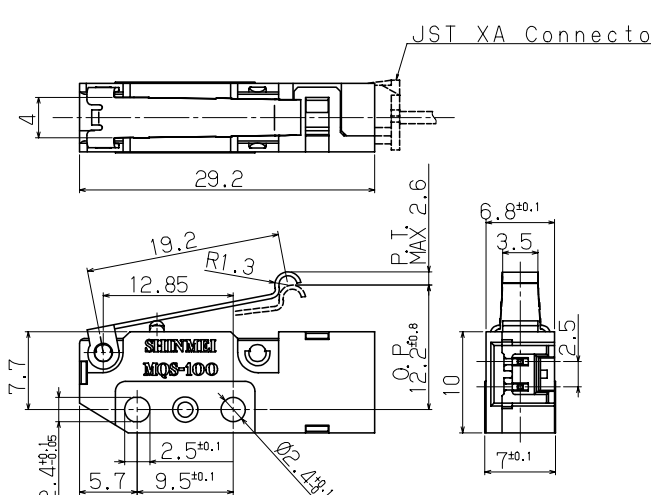
Dimensions

Unit : mm

| No | Style | Operating characteristic | |
|----|--|--------------------------|---------------------------|
| 4 | Hinge long lever (L2)  | P.T. MAX | 3.6mm |
| | | M.D. MAX | 1.0mm |
| | | O.T. MIN | 1.3mm |
| | | O.P. From fixing hole | 11.25 plus or minus 0.8mm |
| 5 | Hinge long lever (L3)  | P.T. MAX | 5.7mm |
| | | M.D. MAX | 1.6mm |
| | | O.T. MIN | 2.3mm |
| | | O.P. From fixing hole | 12.1 plus or minus 2.2mm |
| 6 | Hinge R2.5 lever (D)  | P.T. MAX | 2.6mm |
| | | M.D. MAX | 0.8mm |
| | | O.T. MIN | 1.2mm |
| | | O.P. From fixing hole | 13.3 plus or minus 0.8mm |

Dimension

Unit : mm

| No | Style | Operating characteristic | |
|----|--|--------------------------|--------------------------|
| 7 | Hinge roller lever (D2)  | P.T. MAX | 2.4mm |
| | | M.D. MAX | 0.8mm |
| | | O.T. MIN | 1.2mm |
| | | O.P. From fixing hole | 15.7 plus or minus 0.8mm |
| 8 | Hinge R1.3 lever (D3)  | P.T. MAX | 2.6mm |
| | | M.D. MAX | 0.8mm |
| | | O.T. MIN | 1.2mm |
| | | O.P. From fixing hole | 12.2 plus or minus 0.8mm |

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.
- 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.
- Please use JST XA connector for wiring.
Contact : SXA-001T-P-0.6
Housing : XAP-02V-1
- Please insert straight connector in. When inserted diagonally, near insert entrance, insertion force may become stronger.
- When attached connector, please consider it that load all the time do not be added to connector and lead wire.
Contact fault may occur.