## Model

# SQ-Series 

Quick Float Type Level Switch

## introduction

Quick Float Level Switch and Controller are used for automatically controlling liquid level in tanks.

## Principle

## SQM

Activation of the switch takes place when the reed switch passes through the center of the doughnut shaped magnet.

## SQH

Micro switch lever is activated by the weight of a rolling ball within a capsule inside the tilting float.

## Fertures

Installation is simple, and ON/OFF positions may be easily changed at the job site.
■ It can be used to control level of clean, waste or sanitary water.
■ It has been widely used in the final stage of sanitary water processing system.
■ It can be readily installed at the job site where ceiling levels are low.
Control signal output is precise despite its low price.


| Contact Type | A | B | A\&B |
| :---: | :---: | :---: | :---: |
| Micro Switch (Type: H) |  |  |  |
| Mercury Switch (Type: C) |  |  |  |

(Sticker for classification mark)


## Bincensions

SQM - 4A1B1B1

## Specilications

Switch

| Description Type | SQM | SQH | SQC | SQE |
| :---: | :---: | :---: | :---: | :---: |
| Switch Type | Reed Switch | Micro Switch | Mercury Switch |  |
| Contact Rating | 0.4A, 100V AC | 3A,250V AC/5A,125V AC | 1A 120V AC |  |
| Temperature | $-10^{\circ} \mathrm{C} \sim+70^{\circ} \mathrm{C}$ |  |  | $-10^{\circ} \mathrm{C} \sim 150^{\circ} \mathrm{C}$ |
| Operating Pressure | $2 \mathrm{kgf} / \mathrm{cm}^{2} \mathrm{Max}$. |  |  | $10 \mathrm{~kg} / \mathrm{cmi}^{2}$ |
| Specific Gravity | 0.7 | 0.9 |  | 0.75 |
| Activation Angle | $\pm 30^{\circ}$ | $\pm 25^{\circ}$ | $\pm 25^{\circ}$ | $\pm 25^{\circ}$ |
| Measuring Range | 20 m Max. |  |  |  |
| Float Material | ABS Resin |  |  | 316SS |
| Cable Material | VCT (PVC RUBBER) |  |  | SILICONE RUBBER |
| Float Size | $\varnothing 50 \times 68$ | $\phi 73 \times 105 \mathrm{H}$ |  | $\phi 67 \times 120 \mathrm{H}$ |

Level Controller

| Description Type | Multi-Wire |  | 2 - Wire |
| :---: | :---: | :---: | :---: |
| Sensor(Output Voltage) | $\begin{aligned} & \text { SEC-3U } 12 \mathrm{~V} \mathrm{AC} \\ & \hline \text { SQ-2U } 12 \mathrm{~V} \mathrm{DC} \end{aligned}$ | 15 V DC | 24 V DC |
| Contact Rating | 5A, 250V AC |  |  |
| Power Supply | 110 or220V AC $\pm 10 \%, 50 / 60 \mathrm{~Hz}$ | 110/220V AC $\pm 10 \%, 50 / 60 \mathrm{~Hz}$ |  |
| Control Output | SEC-3U : Control (Supply) <br> SQ-2U : Control (Drain) |  | SQ-4U-2W : Bz,L/AL,Control, H/AL SLA-4P-Q : LL,L,H,HH (Bz,C1,C2,H/AL) |
| Fuse Rating | - | 0.25A, 250V AC |  |
| Material | Base Plate: ABS + Glass Cover :ABS | Unburnable ABS |  |
| Mounting Method | Rack / Wall Mount | Wall Mount |  |
| Dimensions (mm) | $49(\mathrm{~W}) \times 60(\mathrm{H}) \times 69(\mathrm{D})$ | $87(\mathrm{~W}) \times 156(\mathrm{H}) \times 68.2(\mathrm{D})$ |  |

## Precaution

- This level switch must not be uesd for liquids containing ester or ketone because they can dissolve the float material.
- This level switch must not be used with aromatic hydrocarbons, such as benzene, toluene, and xylene because they can dissolve the float material.
- Animal and vegetable oils must not be used because they may embrittle the PVC coating material used on wires.
- Extra care should be taken when handing and transporting SQH, for the micro switches are quite sensitive to shock and vibration.
- This switch should not be used for high pressure and/or high temperature tanks.
- This switch should not be used in contact with adhesive chemicals.


## Oroering/informations

## ■QUICK FLOAT TYPE LEVEL SWITCH

| SQ | H | 1 | A | 1 | A | 1 | A | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

CONDUIT CONNECTION
$1=$ PF $1 / 2^{\prime \prime}$ (Std.)
$2=$ PT $1 / 2^{\prime \prime}$
$3=\mathrm{PF} 3 / 4^{\prime \prime}$
$4=$ PT $3 / 4^{\prime \prime}$
$\mathrm{OP}=$ etc.

## MATERIAL OF WEIGHT

$A=$ PVC Std. $(\varnothing 60 \times 110 H)$
$B=$ SUS304 ( $\varnothing 60 \times 80 H)$
$C=$ SUS316 ( $\emptyset 60 \times 80 H)$
$\mathrm{OP}=$ etc.
MEASURING CABLE LENGTH
$1=0 \sim 5 \mathrm{M}$ (Std.)
2 = Cable Extension(SPST per 1M)
3 = Cable Extension(SPDT per 1M)
$\mathrm{OP}=$ etc.

> MOUNTING SIZE(Include Eye-Bolt \& Rope)
> A $=$ PF $2^{\prime \prime}$ ABS Socket Type (Std.)
> B $=$ PF $2^{\prime \prime}$ ABS with JIS 10K 80A FF HDPE Flange
> $C=P F 2^{\prime \prime} A B S$ with JIS 10K 80A FF PVC Flange
> $D=P F 2^{\prime \prime} A B S$ with JIS 10K 100A FF HDPE Flange
> $E=P F 2^{\prime \prime} A B S$ with JIS 10K 100A FF PVC Fange
> OP = etc.(ADC Head or Other Flange)
> ※ ADC Head (Only Muilt-wire)

## TYPE OF WIRE CONNECTION

1 = Multi Wire (Std.)
$2=2-$ Wire

## OUTPUT

A = Normal Open A Contact (Std.)
B $=$ Normal Close B Contact
C = Normal Open \& Close

## NUMBER OF FLOAT

$$
1=1 \text { Points }
$$

$2=2$ Points
$3=3$ Points
$4=4$ Points
$5=5$ Points

## TYPE OF SWITCH

## M = Reed Switch Type, 2 "Float

H = Micro Switch Type, 3 " Float
C = Mercury Switch Type, 3" Float
$E=$ Mercury Switch Type, 3" 316 SS Float (A or B Contact)

When placing an order, selected ordering number should be indicated on the purchase order sheet

