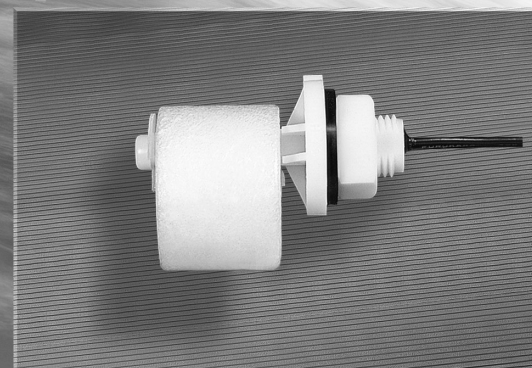


Model **SOL/ST-Series**

Float Type Liquid Level Sensor



Mini Float Type Level Switch (SOL - Series)

Solar House / Washing Machine / Chemical Machine / Fuel Tank / Lubricant Oil Tank
 Engine General Oil Tank / Hydraulic Pressure Machine / Manufacturing Machine
 Vending Machine, etc.

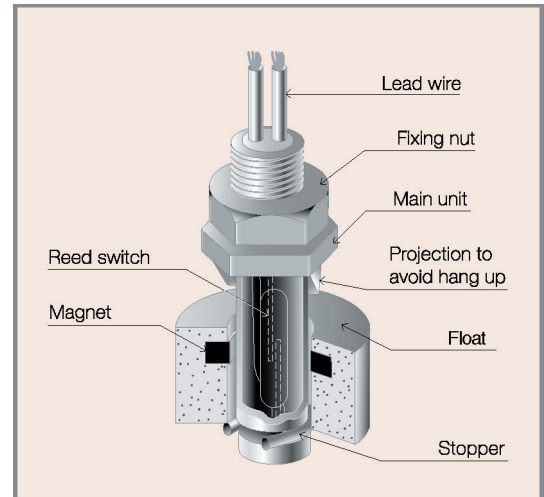
Features

- Compact Size
- Low Cost
- Reliability / Long Switch Life
- Usable With Wide Range Of Liquids
- Easy Installation

Principle

The SEOJIN INSTECH mini float type liquid level switches contain hermetically-sealed reed switches in the stem and a permanent magnet in the float.

As the float rises or falls with the level of the liquid, the reed switch is activated by the magnet in the float. The switch that operates, normally open or normally closed can easily be changed by reversing the float.

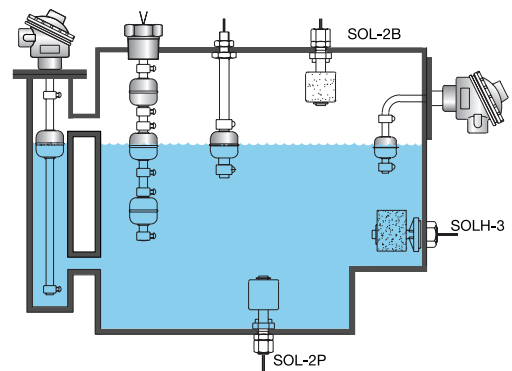


Specifications

Level Controller

| Description | Type | SOCKET |
|------------------------|------|--|
| Switch(Output Voltage) | | 12V DC |
| Contact Rating | | 250V AC, 5A |
| Power Supply | | 110 or 220V AC \pm 10%, 50/60Hz |
| Ambient Temperature | | -10 ~ +60 °C |
| Control Output | | SEC - 3U : H/AL or L/AL SLC - 100U : Control (Supply) |
| Material | | Base Plate : ABS + Glass Cover : ABS |
| Mounting Method | | Rack / Wall Mount |
| Dimensions(mm) | | 49(W) x 60(H) x 69(D) |

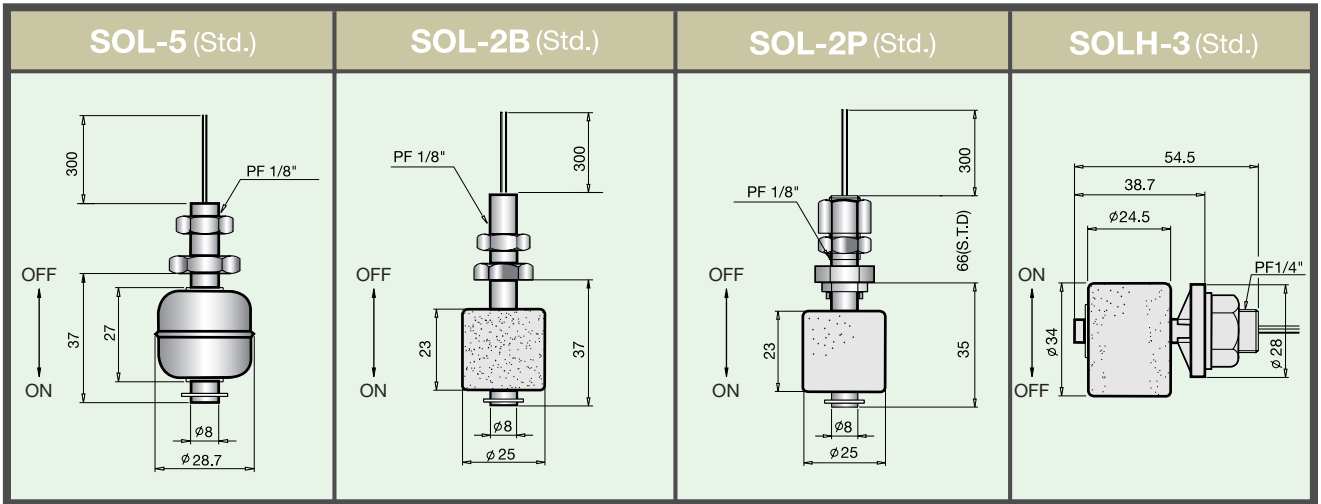
Example of Mounting



Level Switch

| Description | Type | SOL-5 | SOL-2B | SOL-2P | SOLH-3 |
|-----------------------|------|------------------------------|------------------------------------|---------------------------|------------|
| Material : Stem | | 304SS or 316SS | MBsBE ₂ / Nickel plated | P.P | P.P |
| Float | | 304SS or 316SS | NBR | P.P | P.P |
| Stopper | | 304SS or 316SS | 304SS | P.P | P.P |
| Operating Temperature | | -10 °C ~ 100 °C | | -10 °C ~ 90 °C | |
| Pressure Rating | | 10kgf/cm ² Max. | | 5kgf/cm ² Max. | |
| Mounting | | Vertical | | | Horizontal |
| Contact Capacity | | 350V DC, 0.7A / 300V AC 0.5A | | | |
| Specific Gravity | | 0.5 Min | | | |
| Lead Wire | | #22AWG, 300mm | | | |

Overall Dimensions



Ordering Informations

MINI FLOAT TYPE LEVEL SWITCH

SOL - 1 A 1 A 1 A 1

HOUSING

- 1 = None (Std.)
- 2 = ABS Head
- 3 = Thermocouple Head(Max.3 point)
- 4 = ADC Head(NEMA 4)

MEASURING PART LENGTH

- A = 0 ~ 57mm (Std.)
- B = 0 ~ 100mm
- C = 0 ~ 200mm
- D = 0 ~ 300mm
- E = 0 ~ 1000mm (Max.)

MOUNTING SIZE

- 1 = PF 1/8" None Housing (Std.)
- 2 = PF 1/4" None Housing
- 3 = PT 3/4"
- 4 = PT 1"
- OP = etc.

WET PART MATERIAL

- A = 304SS (Std.)
- B = 316SS
- C = Brass / Nickel plated
- D = P.P

FLOAT MATERIAL

- 1 = 316SS (Std.)
- 2 = NBR (Poly-urethane)
- 3 = P.P

NUMBER OF FLOAT

- A = 1 EA (316SS Std.)
- B = 2 EA (Min. Length 80mm)
- C = 3 EA (Min. Length 120mm)
- D = 4 EA (Min. Length 160mm)

FUNCTION

- 1 = 1 Point (Std.)
- 2 = 2 Point
- 3 = 3 Point
- 4 = 4 Point

■ When order, give us information on exact locations of relay point.

Float Type Level Switch (ST-□S)

Features

- Ideally suited on liquid tanks of oil, hydrochloric acid, sulfuric acid, etc.

Principle

Hermetically-sealed reed switches inside the stem are activated by the permanent magnet inside the float which rises and falls with the changes of liquid level.

Resistance value is changed according to the operation of reed switches.

Total resistance value is selected by the unit and transmit relay output.

Overall Dimensions

| Type | 304SS | 316SS | PTFE | PVC |
|----------------------------|-------|-------|------|-----|
| General / Intrinsic Safety | | | | |
| Explosion Proof | | | | |
| Wiring | | | | |

Specifications

Level Switch

| Description | Type | 304SS | 316SS | PVC | PTFE |
|--------------------|-------------|--|-------|----------------------|---------------|
| Contact Capacity | | 250V DC, 0.2A | | | |
| Temperature | Electronics | -10 ~ +60 °C | | | |
| | Probe | -10 ~ +100 °C | | -10 ~ +60 °C | -10 ~ +100 °C |
| Operating Pressure | | 10Kgf/cm ² Max. | | 2Kgf/cm ² | |
| Specific Gravity | | 0.65 Min. | | 0.5 Min. | 0.75 Min. |
| Enclosure | | Weather Proof, Explosion Proof(EX d IIB T5 or T4), Intrinsic Safety(EX ia IIB T6 or T5) | | | |

Level Controller

| Description | Type | Multi-Wire | 2 - Wire |
|------------------------|------|---|--|
| Sensor(Output Voltage) | | 12V DC | 15V DC |
| Contact Rating | | 250V AC, 5A | |
| Power Supply | | 110 or 220V AC $\pm 10\%$, 50/60Hz | 110/220V AC $\pm 10\%$, 50/60Hz |
| Ambient Temperature | | -10 ~ +60 °C | |
| Control Output | | SLC-100U : Control | SLCA-HL-2W : Bz,L/AL,Control, H/AL SLA-4P-Q : LL,L,H,HH (Bz,C1,C2,H/AL) |
| Fuse Rating | | N/A | 250V AC, 0.1A |
| Material | | Base Plate : ABS + Glass Cover : ABS | Unburnable ABS |
| Mounting Method | | Rack / Wall Mount | Wall Mount |
| Dimensions(mm) | | 49(W) x 60(H) x 69(D) | 87(W) x 156(H) x 68.2(D) |

Ordering Informations

■FLOAT TYPE LEVEL SWITCH

S T - 1 S A 1 A 1 A 1 A 1

CONDUIT CONNECTION

- 1 = PF 3/4" (Std.)
- 2 = PT 3/4"
- 3 = PF 1/2" (Ex/ADC-Std.)
- 4 = PT 1/2"
- OP= etc.

ENCLOSURE

- A = Weather Proof (ABS - Std.)
- B = Weather Proof (ADC)
- C = Explosion Proof (Ex d IIB T4)
- D = Intrinsic Safety (Ex ia IIB T5)

OPERATING TEMPERATURE

- 1 = -10 ~ +60 °C (Std.)
- 2 = -10 ~ +100 °C (Max.)

MOUNTING SIZE

- A = JIS 10K 80A 6t FF Flange (Std.)
- B = JIS 10K 100A 6t FF Flange (Std.)
- C = PT 2"
- D = JIS 10K 80A FF Flange
- E = JIS 10K 100A FF Flange
- OP = etc.

MEASURING LENGTH

- 1 = 0 ~ 1M
- 2 = 0 ~ 2M
- 3 = 0 ~ 3M
- 4 = 0 ~ 4M
- 5 = 0 ~ 5M (4.9M Max.)
(PVC: 0~3.9M Max.)

WET PART MATERIAL

- A = 304SS (Std.)
- B = 316SS
- C = PVC
- D = PTFE

TYPE OF WIRE CONNECTION

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

NUMBER OF FLOAT

- A = 1 EA (Std.) (Min. Length 80 mm)
- B = 2 EA (Min. Length 170 mm)
- C = 3 EA (Min. Length 250 mm)
- D = 4 EA (Min. Length 330 mm)
- E = 5 EA (Min. Length 410 mm)

NUMBER OF POINT (1M)

- 1S = 1 point
- 2S = 2 point
- 3S = 3 point
- 4S = 4 point
- 5S = 5 point

Float Type Level Transmitter (ST-600)

Features

- Municipal Water, Industrial Water, LPG Tank, Chemical Tank ...
- Easy installation and wide application.
- Applicable to chemical liquid with coating on stem, such as PVC, PTFE, etc.

Principle

Reed switches which are built in the sensor are operated by the magnet float which moves up and down on the stem according to the material level. At this time, resistance value from the resistors which are connected side by side with reed switches is changed between R1, and R10 according to the location of operating reed switch and this output value is transmitted to convertor and it is changed to mA by the convertor and transmitted to control unit to be indicated.

Overall Dimensions

| Type | 304, 316SS | PTFE | PVC |
|----------------------------|------------|------|-----|
| General / Intrinsic Safety | | | |
| Explosion Proof | | | |

■ Special Float : 2" - 316SS ($\phi 52 \times H60\text{mm}$) & NBR($\phi 40 \times H30\text{mm}$) with JIS 10K 50A FF Flange

Specifications

Level Transmitter

| Description | Type | 304SS | 316SS | PVC | PTFE |
|--------------------|-------------|--|-------|----------------------|---------------|
| Power Supply | | 15 ~ 32V DC | | | |
| Output Signal | | 4 ~ 20mA DC | | | |
| Temperature | Electronics | - 20 ~ +60°C | | | |
| | Stem | - 20 ~ +100°C | | - 20 ~ +60°C | - 20 ~ +100°C |
| Operating Pressure | | 10Kgf/cm ² | | 2Kgf/cm ² | |
| Calibration | | Zero and Span Selection | | | |
| Accuracy | | 15mm(Less Than 1.2m) / 25mm(Excess Than 1.2m) | | | |
| Specific Gravity | | 0.65 Min. | | 0.5 Min. | 0.75 Min. |
| Enclosure | | Weather Proof, Explosion Proof(EX d IIB T4), Intrinsic Safety (EX ia IIB T4) | | | |

■ Level Controller

| Description | Type | 2 - Wire | | |
|------------------|-----------------------------------|---|------------------|-------------|
| Model | SLI-100U | SLIC-4P | SLIC-4P | SLIC-4PD |
| Power Supply | 110V/220V AC $\pm 10\%$, 50/60Hz | | | |
| Contact Rating | 250V AC, 5A | | | |
| Input Signal | — | 4 ~ 20mA DC | 4 ~ 20mA DC Loop | 4 ~ 20mA DC |
| Ambient Temp. | 0 ~ +60°C | | | |
| Control Output | Power Supply(24V DC) | Bz, L/AL, Control, H/AL, 2-Step, 3-Step | | |
| Mounting Method | Rack / Wall Mount | Wall Mount | Panel Mount | |
| Cutting Size(mm) | 49(W) x 60(H) x 69(D) | 87(W) x 156(H) x 68.2(D) | DIN 48 x 96 | |

■ Level Indicator

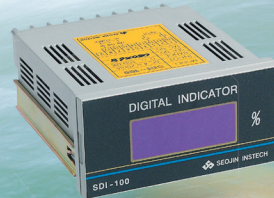
| Description | Type | SAI-100 (Analog) | SAI-100EX (Explosion Proof) | SDI-100 (Digital) | SVI-100 (Vertical) |
|---------------------|------|--|--------------------------------|----------------------|-----------------------|
| Mounting Method | | Panel Mount | Wall / Standing | Panel Mount | |
| Input Signal | | 4 ~ 20mA DC | | | |
| Internal Resistance | | 98 Ω | | 10 Ω | 2.5 Ω |
| Scale Range | | 0 ~ 100% | | | |
| Ambient Temperature | | -20 ~ +60°C | | | |
| Weight | | Approx. 450g | Approx. 10.7Kg | Approx. 670g | Approx. 1.5Kg |
| Cutting Size (mm) | | $\phi 100$, $\square 89$, Hole 4X $\phi 6$ | Stanchion Mount(50A) | DIN 44 X 92 | 50.7(W) x 152.3(H) |
| Application | | for Panel Local Indication | | | |



SLI-100U



SLIC-4PD



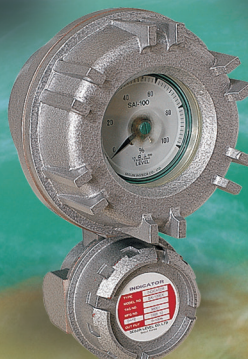
SDI-100



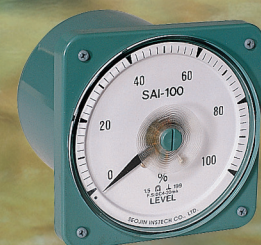
SAR-24A



SLIC-4P



SAI-100EX



SAI-100

■ FLOAT TYPE LEVEL TRANSMITTER

ST-600 A 1 A 1 A 1 A

CONDUIT CONNECTION

- A = PF 3/4" (Std.)
- B = PT 3/4"
- C = PF 1/2" (Ex/ADC-Std.)
- D = PT 1/2"
- OP = etc.

ENCLOSURE

- 1 = Weather Proof (ABS-Std.)
- 2 = Weather Proof (ADC)
- 3 = Explosion Proof (Ex d IIB T4)
- 4 = Intrinsic Safety (Ex ia IIB T5 or T6)
- 5 = Lighting Surge Protection

SPECIFIC GRAVITY OF LIQUID

- A = ϕ 79 (More than 0.85 Std.)
- B = ϕ 102 (0.6 ~ 0.84)
- C = ϕ 95 (Less than 0.59)

MEASURING RANGE

- 1 = 0 ~ 1M
- 2 = 0 ~ 2M
- 3 = 0 ~ 3M
- 4 = 0 ~ 4M
- 5 = 0 ~ 5M
- 6 = 0 ~ 5.9M (Max.)

OPERATING TEMPERATURE

- A = -10 ~ + 60 °C (Std.)
- B = -10 ~ +100°C (Max)

MOUNTING SIZE

- 1 = JIS 10K 80A 6t FF Flange (Std.)
- 2 = JIS 10K 100A 6t FF Flange (Std.)
- 3 = JIS 10K 80A FF Flange
- 4 = JIS 10K 100A FF Flange
- 5 = PT 2" Socket
- OP= etc.

WET PART MATERIAL

- A = 304SS (Std.)
- B = 316SS
- C = PVC
- D = PTFE

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

