



# Mini Float/Float Type Level Switch

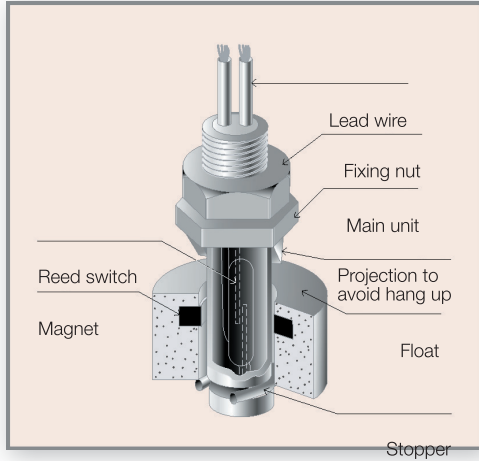
Model : SOL/ST- Point



**SeoJin Instech Co., Ltd.**

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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

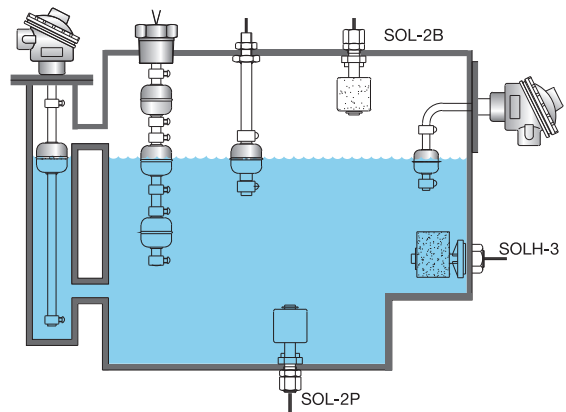
#### ► Level Controller

DESCRIPTION	Type	SOCKET
Switch(Output Voltage)		12V AC or 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)

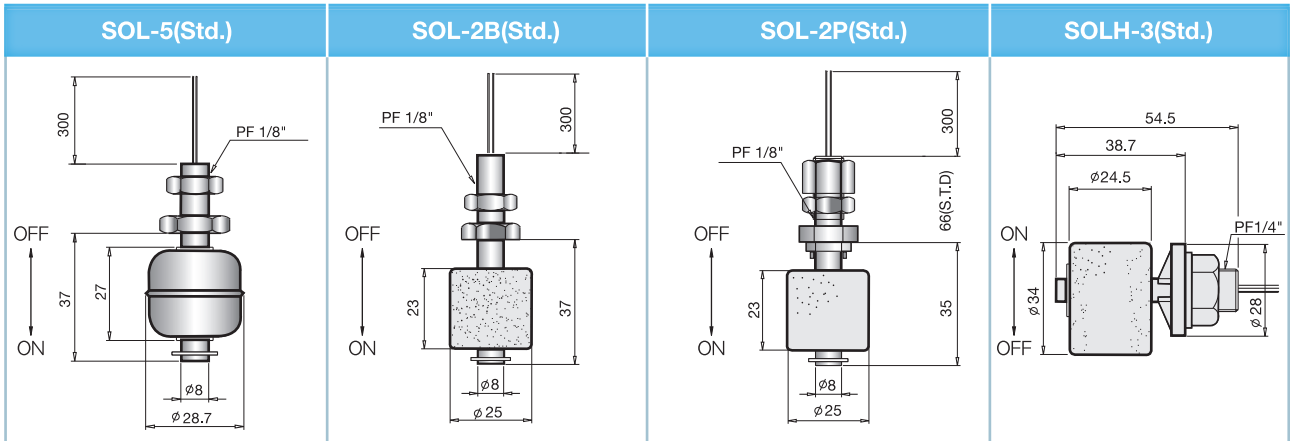
#### ► Level Switch

DESCRIPTION	Type	SOL-5	SOL-2B	SOL-2P	SOLH-3	SOL- V
Material	Stem	304SS or 316LSS	MB <sub>3</sub> BE <sub>2</sub> / Nickel plated	P.P	P.P	PVC
	Float	316LSS	NBR	P.P	P.P	PVC
	Stopper	316LSS	304SS	P.P	P.P	PVC
Operating Temperature		-10°C ~ 100°C	-10°C ~ 90°C		-10°C ~ 60°C	
Pressure Rating		10kgf/cm <sup>2</sup> Max.	5kgf/cm <sup>2</sup> Max.		1Kgf/cm <sup>2</sup> Max.	
Electric Rating (Resistive)	Max. Contact Rating	50W / 70VA				
	Max. Switching Current	0.5A				
	Max. Switching Voltage	300V AC / 350V DC				
Specific Gravity		0.8 Min.				
Lead Wire		#22AWG, 300mm				

### Example of Mounting



## Overall Dimensions



## Ordering Information

### ■ Mini Float Type Level Switch

SOL - 1 A 1 A 1 A 1

#### HOUSING

- 1 = None (Std.)
- 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 = 316LSS
- C = Brass / Nickel plated
- D = P.P
- E = PVC

#### FLOAT MATERIAL

- 1 = 316LSS (Std.)
- 2 = NBR
- 3 = P.P
- 4 = PVC

#### 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.

# ST-□S

## Float Type Level Switch

### Features

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

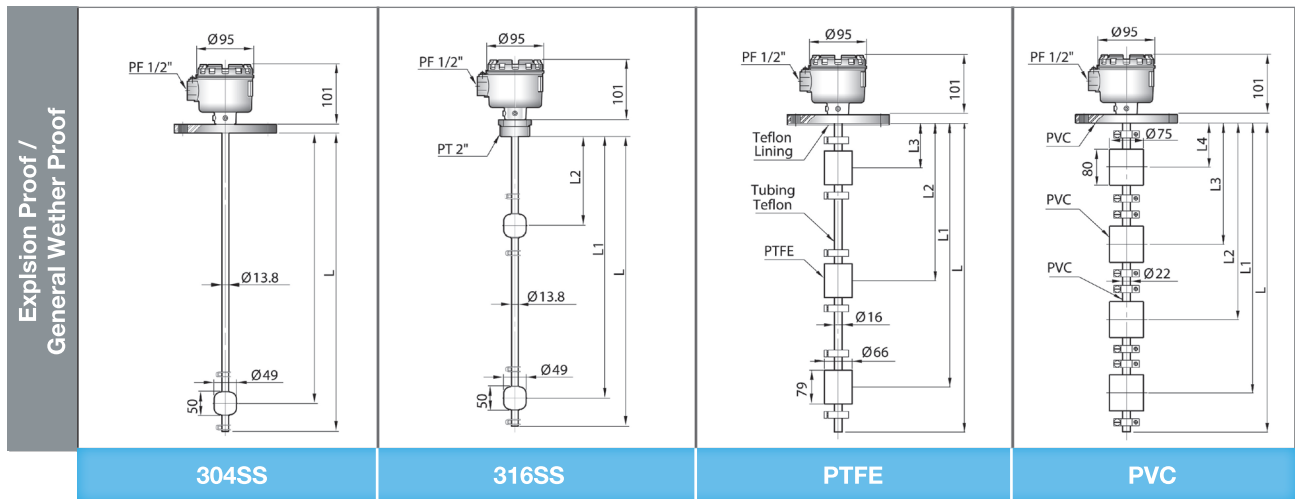
### Principle

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



### Specifications

#### ► Level Switch

DESCRIPTION		Type	304SS	316SS	PVC	PTFE
Electric Rating / SPST (Resistive)	Max. Contact Rating		50W / 70VA			
	Max. Switching Current		0.5A			
	Max. Switching Voltage		300V AC / 350V DC			
Electric Rating / SPDT(Resistive)	Max. Contact Rating		5W			
	Max. Switching Current		DC 0.4A / AC 0.28A			
	Max. Switching Voltage		125V AC / 175V DC			
Temperature	Electronics		-10 ~ +60 °c			
	Probe		-10 ~ +100 °c		-10 ~ +60 °c	-10 ~ +100 °c
Operating Pressure			10Kgf/cm <sup>2</sup> Max.		2Kgf/cm <sup>2</sup>	2" Float -1Kgf/cm <sup>2</sup>
Specific Gravity			0.65 Min.		0.5 Min.	0.75 Min.
Lead Wire			Weather Proof, Explosion Proof (Ex d II C T6, IP65)			

## Specifications

### ► Level Controller

DESCRIPTION	Type	Multi-Wire	2-Wire
Sensor (Output Voltage)		12V DC	15V DC
Contact Rating		250V AC, 5A	
Power Supply		110or 220V AC±10%, 50/60Hz	110/220V AC ±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 Information

### ■ Float Type Level Switch (304SS/316SS/PTFE)

ST - 1S A 1 A 1 A 1 B 3

#### CONDUIT CONNECTION

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

#### ENCLOSURE

- B = Weather Proof (ADC)
- C = Explosion Proof (Ex d II C T6, IP65)

#### 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.)

#### WET PART MATERIAL

- A = 304SS (Std.)
- B = 316LSS
- 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)

\* PTFE is the same as PVC

#### NUMBER OF POINT (1M)

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

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

## Ordering Information

### ■ Float Type Level Switch (PVC)

ST- 1S A 1 C 1 A 1 B 3

#### CONDUIT CONNECTION

- 1 = PF 3/4"
- 2 = PT 3/4"
- 3 = PF 1/2" (Std.)
- 4 = PT 1/2"
- 5 = NPT 1/2"
- 6 = NPT 3/4"
- OP=etc.

#### ENCLOSURE

- B = Weather Proof (ADC Std.)
- C = Explosion Proof (Ex d IIC T6, IP65)

#### OPERATING TEMPERATURE

- 1= -10 ~ +60 °C(Std.)

#### MOUNTING SIZE

- A = JIS 10K 80A FF Flange (Std.)
- B = JIS 10K 100A FF Flange (Std.)
- OP = etc.

#### MEASURING LENGTH

- 1 = 0 ~ 1M
- 2 = 0 ~ 2M
- 3 = 0 ~ 3M
- 4 = 0 ~ 4M (3.9M Max.)

#### WET PART MATERIAL

- C = PVC

#### TYPE OF WIRE CONNECTION

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

#### NUMBER OF FLOAT

- A = 1 EA (Std.) (Min. Length 110 mm)
- B = 2 EA (Min. Length 300 mm)
- C = 3 EA (Min. Length 450 mm)
- D = 4 EA (Min. Length 600 mm)
- E = 5 EA (Min. Length 750 mm)

#### NUMBER OF POINT (1M)

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

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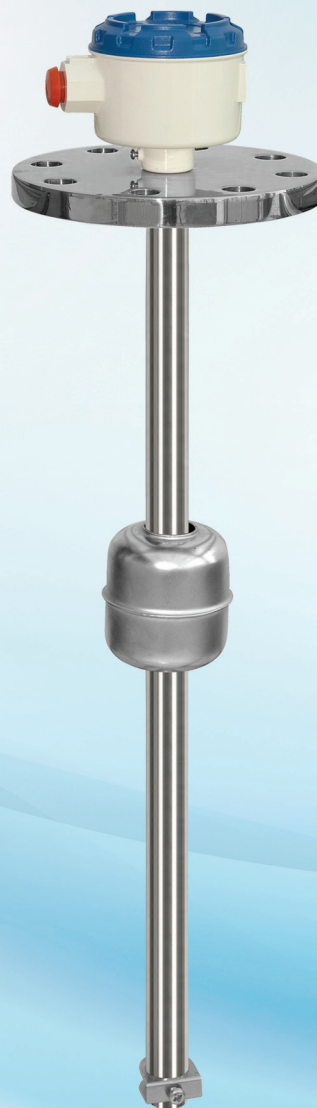
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■ Specifications subject to change without notice

# Float Type Level Transmitter

Model : ST-600



# ST- 600

## Float Type Level Transmitter

### Features

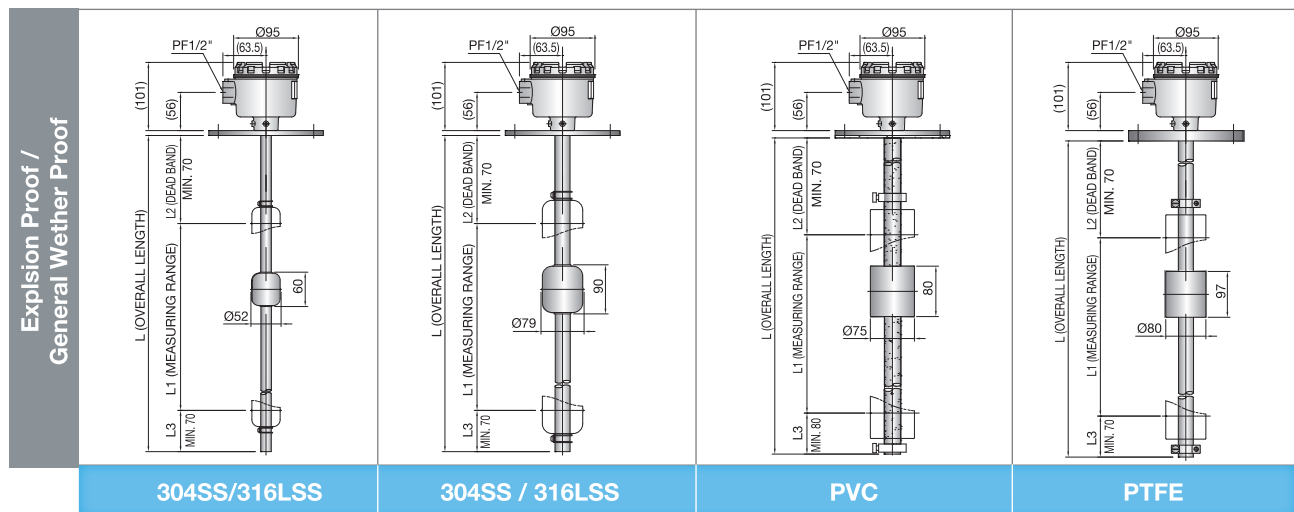
- Municipal Water, Industrial Water, LPG Tank, Chemical Tank ...
- Easy installation and wide application.
- Applicable to chemical liquid with coating on stem, such as PVC, PTFE, etc.

### 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



■ Special Float : 2" - 316SS (Ø52 x H60mm) & PVC(Ø50x H80mm) with JIS 10K 50A FF Flange




### Specifications

DESCRIPTION		Type	304SS	316LSS	PVC	PTFE
Power Supply			15 ~ 32V DC			
Output Signal			4 ~ 20mA DC			
Temperature	Ambient		-20 ~ +60°C			
	Process		-20 ~ +150°C		-20 ~ +60°C	-20 ~ +150°C
Operating Pressure			10kgf/cm <sup>2</sup>		2Kgf/cm <sup>2</sup>	0.5kgf/cm <sup>2</sup>
Accuracy			10mm(Less Than 1.2m) / 20mm(Excess Than 1.2m)			
Specific Gravity			0.7 Min.		0.5 Min.	0.85 Min.
Viscosity			Max. 1000 cP			
Enclosure			Weather Proof, Explosion Proof (Ex d IIC T6, IP65)			
Material	Housing		ADC12			
	Stem		304SS	316LSS	304SS+PVC Coating	304SS+PTFE Coating
	Float		304SS	316LSS	PVC	PTFE






## Specifications

### ► Level Controller

DESCRIPTION	Type	2 - Wire		
		SLI-100U	SLIC-4P	SLIC-4PD
Model				
Power Supply		110V/220V AC ±10%, 50/60Hz		
Contact Rating		250V AC, 5A		
Input Signal		-	4 ~ 20mA DC(2 Wire), 4 ~ 20mA DC24V(3 Wire), 1 ~ 5V DC(Option)	
Ambient Temp.		0 ~ +60°C		
Control Output		Power Supply(24V DC)	Buzzer, L/AL, Control, H/AL, 2-Step, 3-Step	
Specific Gravity		Rack / Wall Mount	Wall Mount	Panel Mount
Enclosure		49(W) x 60(H) x 69(D)	87(W) x 156(H) x 68.2(D)	92(W) x 47(H) x 100(D)

### ► Level Indicator

DESCRIPTION	Type	SAI-100 (Analog)	SAI-65	SAI-100EX (Explosion Proof)	SDI-100 (Digital)
	Model				
Mounting Method		Panel Mount		Wall / Standing	Panel Mount
Input Signal		4 ~ 20mA DC			
Internal Resistance		98Ω			10Ω
Scale Range		0 ~ 100%			
Ambient Temperature		-20 ~ +60°C			
Weight		Approx. 450g	Approx. 450g	Approx. 10.7Kg	Approx. 670g
Cutting Size (mm)		Ø100, □89, Hole 4XØ6	Ø66, □64, Hole 4XØ5	2" pipe Yoke Mount (50A/2")	93(W) x 45(H) x 110(D)
Application		for Local Panel Indication			

## Ordering Information

### ■ Float Type Level Transmitter (304SS/316SS)

ST-600

A

1

A

1

A

2

C

#### CONDUIT CONNECTION

A = PF 3/4"  
 B = PT 3/4"  
 C = PF 1/2" (Std.)  
 D = PT 1/2"  
 E = NPT1/2"  
 F = NPT3/4"  
 OP=etc.

#### ENCLOSURE

2 = Weather Proof (ADC)  
 3 = Explosion Proof (Ex d IIC T6, IP65)

#### SPECIFIC GRAVITY OF LIQUID

A = Ø79 (More than 0.85 Std.) : 304SS or 316SS  
 B = Ø102 (0.6) : 316SS  
 C = Ø95 (Less than 0.65) : 316SS  
 D = Ø52 (0.98) : 316SS

#### MEASURING RANGE

1 = 0.5 ~ 1M  
 2 = 0.5 ~ 2M  
 3 = 0.5 ~ 3M  
 4 = 0.5 ~ 4M  
 5 = 0.5 ~ 5M  
 6 = 0.5 ~ 5.9M (Max.)

#### OPERATING TEMPERATURE

A = -20 ~ + 60°C (Std.)  
 B = -20 ~ +150°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  
 6 = JIS 10K 50A FF Flange (Float OD : Ø52)  
 7 = ANSI #150 3" RF Flange  
 8 = ANSI #150 4" RF Flange  
 OP = etc.

#### WET PART MATERIAL

A = 304SS (Std.)  
 B = 316LSS

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

## Ordering Information

### ■ Float Type Level Transmitter (PVC)

ST-600 C 1 A 1 B 3

#### CONDUIT CONNECTION

- 1 = PF 3/4
- 2 = PT 3/4
- 3 = PF 1/2 (Std.)
- 4 = PT 1/2
- 5 = NPT1/2"
- 6 = NPT3/4"
- OP = etc.

#### ENCLOSURE

- B = Weather Proof (ADC)
- C = Explosion Proof (Ex d IIC T6, IP65)

#### MEASURING RANGE

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

#### OPERATING TEMPERATURE

A = -20 ~ + 60°C (Std.)

#### MOUNTING SIZE

- 1 = JIS 10K 80A FF Flange
- 2 = JIS 10K 100A FF Flange
- 3 = JIS 10K 50A FF Flange (Float OD : Ø52)
- 4 = ANSI #150 3" RF Flange
- 5 = ANSI #150 4" RF Flange
- OP = etc.

#### WET PART MATERIAL

- C = PVC
- Float Ø75 (S.G. 0.62)

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

## Ordering Information

### ■ Float Type Level Transmitter (PTFE)

ST-600    D    1    A    1    B    3

#### CONDUIT CONNECTION

- 1 = PF 3/4
- 2 = PT 3/4
- 3 = PF 1/2 (Std.)
- 4 = PT 1/2
- 5 = NPT1/2"
- 6 = NPT3/4"
- OP = etc.

#### ENCLOSURE

- B = Weather Proof (ADC)
- C = Explosion Proof (Ex d IIC T6, IP65)

#### 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 = -20 ~ +60°C (Std.)
- B = -20 ~ +150°C (Max.)

#### MOUNTING SIZE

- 1 = JIS 10K 80A 6t FF Flange
- 2 = JIS 10K 100A 6t FF Flange
- 3 = JIS 10K 80A FF Flange
- 4 = JIS 10K 100A FF Flange
- 5 = ANSI #150 3" RF Flange
- 6 = ANSI #150 4" RF Flange
- OP = etc.

#### WET PART MATERIAL

- D = PTFE
- Float Ø80 (S.G. 1.0)

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