

# Model **SGL**

## Gear Type Liquid Level Transmitter



### Introduction

This is designed to measure the level of liquid such as water, diesel oil, bunker-c, etc. by using the buoyancy of float and spring force. When the float rises and falls, the gear mechanism connected to float through spring works to display the level on the front scale and an analog signal is also produced.

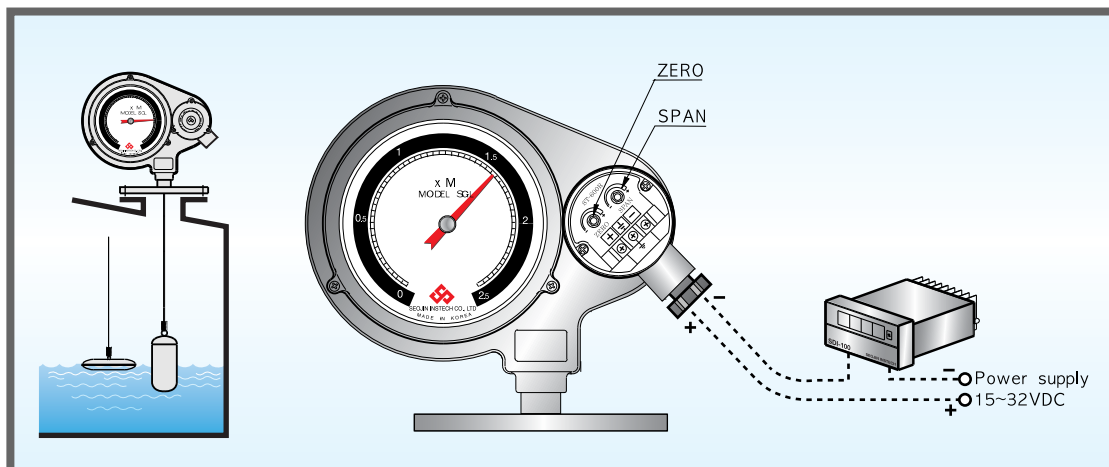
### Features

- Remote and local indications are available.
- Easy to carry and install.
- Compactness of this model permits installation in a cramped space where there is a limited headroom.

### Principle

When the tank is filling or emptying, the float rises and falls until the float and wire weight becomes equal to liquid buoyancy plus spring force.

That is, when the level rises, the spring is wound as the buoyancy increases and the load applied to wire decreases. When the level falls, buoyancy decreases and the load applied to wire increases. The front scale connected to float and wire through gear mechanism displays the level variation on the dial, and R/I converter outputs 4~20mA DC analog signal by using the built-in potentiometer.



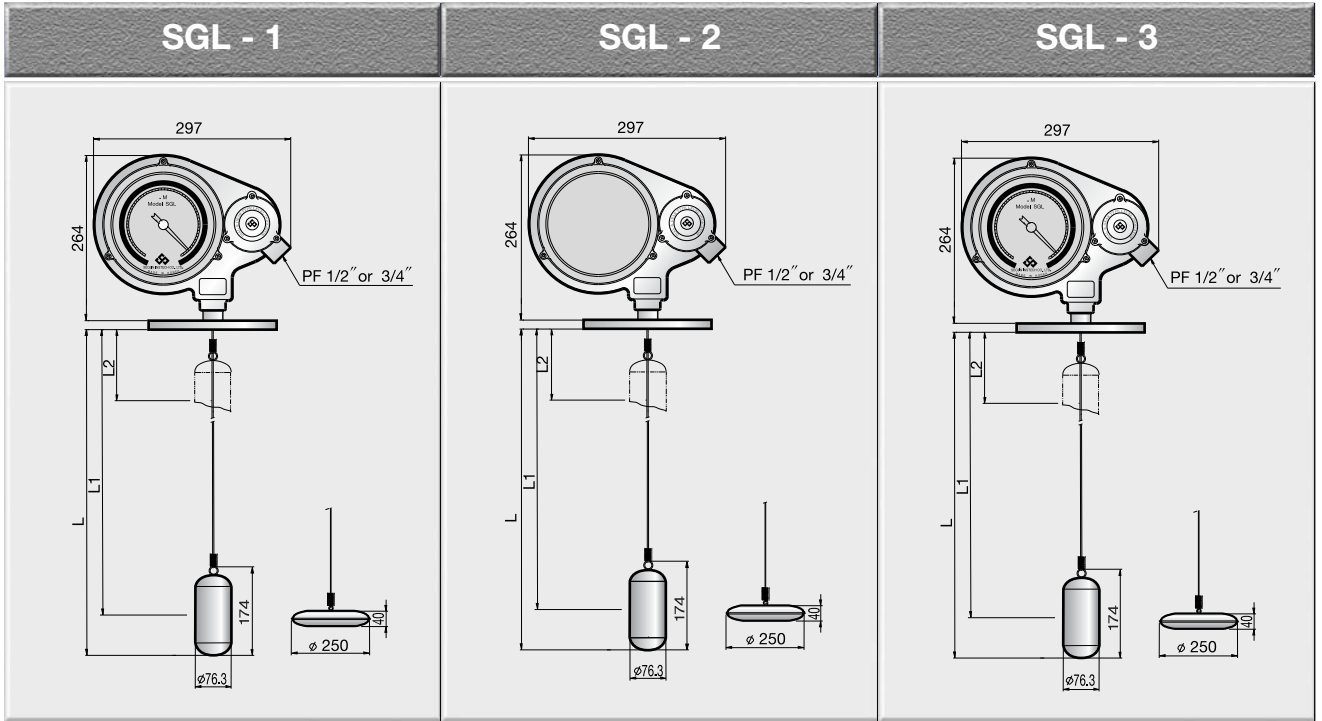
### Calibration

- 1 To measure current, supply the power after connecting (1) "-" terminal of ST-600R to "+" terminal of a multimeter, and (2) "-" terminal of a multimeter to "+" terminal of power supply.
- 2 Lower the float to 0% position, and make the multimeter read 4mA DC by adjusting the ZERO adjustment knob.
- 3 Raise the float to 100% position, and make the multimeter read 20mA DC by adjusting the SPAN adjustment knob.

#### Caution before the Installation

- Avoid : high temperature and pressure tank (85 °C Max.), high viscosity material and corrosive material.
- A chamber should be used if there is turbulence in the tank.

## Overall Dimensions



## Specifications

Description	Model	SGL - 1	SGL - 2	SGL - 3
Measuring material		Liquid / Oil		
Input Power		—	15 ~ 32V DC, 2 - Wire Loop Type	
Output		Dial Display	4 ~ 20mA DC	Dial Display & 4 ~ 20mA DC
Loop Impedance		—	450 Ω (24V DC)	
Calibration		—	Zero & Span	
Accuracy		±20mm ( Horizontal : ±10mm)		
Measuring Range		10m (Max.)		
Specific Gravity		Float : 0.6, Measuring Medium : Min. 0.8		
Temp. for Main body		-20 ~ +85 °C	-20 ~ +60 °C	
Temp. for sensing part		-20 ~ +85 °C		
Operating pressure		ATM.		
Float		ø76.3 × 174H for 3" Vertical (Std.), ø48.6 × 300(H) for 2" Vertical, ø250 × 40H for Horizontal (Option)		
Construction		Weather proof (IP 65)		
Material		Body : Unburnable ABS, Flange : 304SS or 316SS, Wire : 316SS, Float : 304SS or 316SS		

■ Please Contact SEOJIN INSTECH if you have a specific measuring medium

■ GEAR TYPE LIQUID LEVEL TRANSMITTER

SGL - 3 A 1 A 1 A

CONDUIT CONNECTION

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

TYPE OF FLOAT

- 1 = Vertical Type to insert into 3" Pipe
- 2 = Vertical Type to insert into 2" Pipe
- 3 = O.D 10" Horizontal Pipe

MOUNTING SIZE

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

MEASURING PART LENGTH

- |                    |                     |
|--------------------|---------------------|
| 1 = 0 ~ 1 M        | 6 = 0 ~ 6 M         |
| 2 = 0 ~ 2 M        | 7 = 0 ~ 7 M         |
| 3 = 0 ~ 3 M        | 8 = 0 ~ 8 M         |
| 4 = 0 ~ 4 M        | 9 = 0 ~ 9 M         |
| 5 = 0 ~ 5 M (Std.) | 10 = 0 ~ 10M (Max.) |

WET PART MATERIAL (FLOAT, WIRE, FLANGE)

- A = 304SS
- B = 316SS

OUTPUT

- 1 = Local Indication only
- 2 = 4~20mA DC Output (Non local indication)
- 3 = Local Indication & 4~20 mA DC Output

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

