



## FLOAT LEVEL INDICATOR

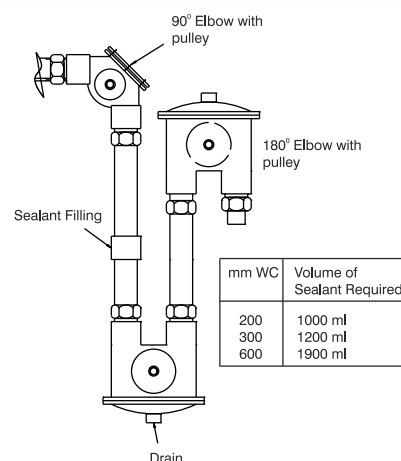
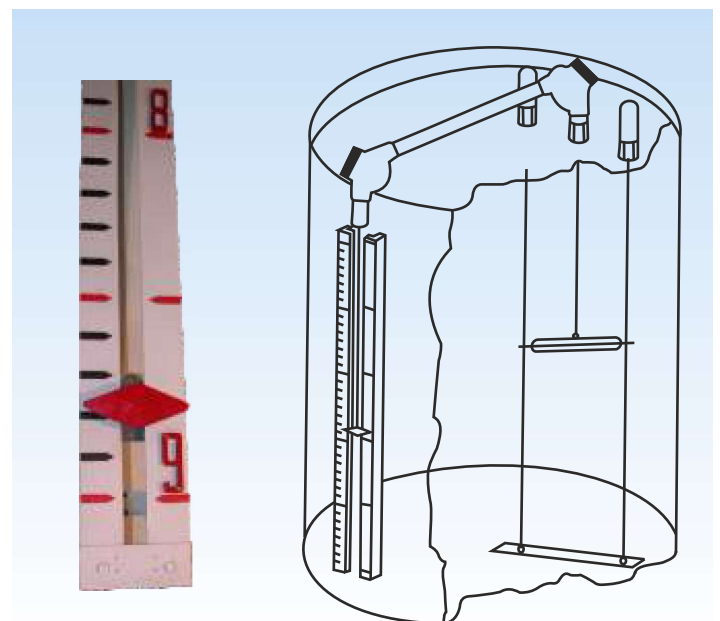
SIGMA tank level indicators are float operated target type suitable for liquid level gauging of fixed roof, floating roof, open type vertical storage tanks and underground sumps for water, oil, solvents etc. The tank level indicators are of simple construction and are easy to install. They are very sturdy and require no maintenance. A float operated tank indicator comprises of a float that is located within guide cables. The guide cables whose ends are fastened on to an anchor bar are kept straight and wrinkle free by tension devices. The anchor bar is either grouted or welded to the tank bases. The float cable is wound over a set of pulleys, which are secured in the pulley housing. One end of the float cable bears the float and the other end carries a pointer assembly incorporating a counter weight for balance. Tank level indicator float operated type is for fixed roof, floating roof, open top and under ground storage tanks.

### Sigma Advant-edge

- ✓ Simple and rugged in construction.
- ✓ Good readability from a long distance.
- ✓ Easy installation.
- ✓ Can accommodate a range of specific gravities.
- ✓ For larger ranges and minimum mounting space, the Half scale type is a classic solution.
- ✓ Liquid seals for volatile and fuming processes.

### Specifications

Type & Range	: Full Scale / Half Scale, up to 20 m / specified
Graduation	: At every 100 mm in raised Aluminum
Specific Gravity	: 0.7 and above.
Operating Temperature	: up to 300°C / specified
Float	: SS 304/SS 316/ MS Rubber Lined /SS316 Teflon lined/PP/PVC/ specified
Guide Wire	: SS 304 / SS 316 / Nylon / PP
Tension Spring Assembly	: Carbon Steel / SS 304 / SS 316.
Anchor Bar	: CS / SS 304 / SS 316.
Pulley	: SS 304/SS 316/Brass/CF8/CF8M.
Pulley Housing	: AL / CI / SS.
Guide Tube	: CS / SS.
Scale	: Figures in raised Aluminum.
Pointer	: AL / SS.
Counter weight	: CI / SS.
Marking Strip	: Nylon / PP.



Liquid seals are used for application where

- Product stored is volatile
  - Inert gas blanketing in tank
  - Vapor pressure is in excess but less than above listed mm of Water column
- Approximate volume of sealing liquid is produced in the table.

Note: Transformer oil / liquid paraffin is provided if required.



## FLOAT LEVEL INDICATOR WITH LEVEL SWITCH

The various advantages of the float level indicator is to provide continuous liquid level measurement for bulk storage applications is further enhanced by the addition of level control. SIGMA float level indicator cum switch is specifically engineered to reduce maintenance and enhance reliability. FLI with Level Switch is the best solution in critical areas where it is not possible to use Level Switches in the inside of the tank. Typical application area includes Floating Roof Tanks, Underground Sumps where switching is not possible internally / externally.

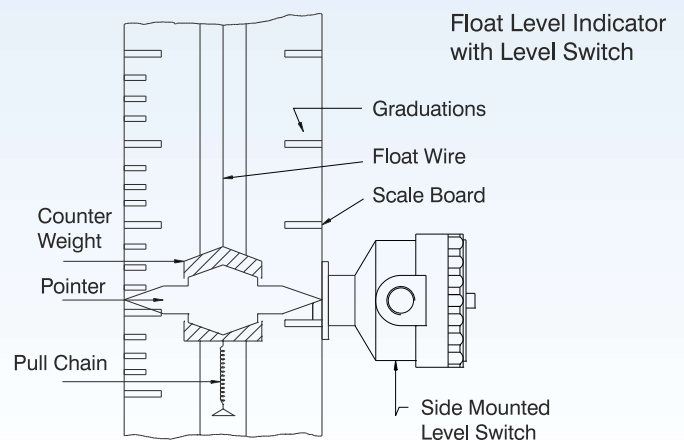
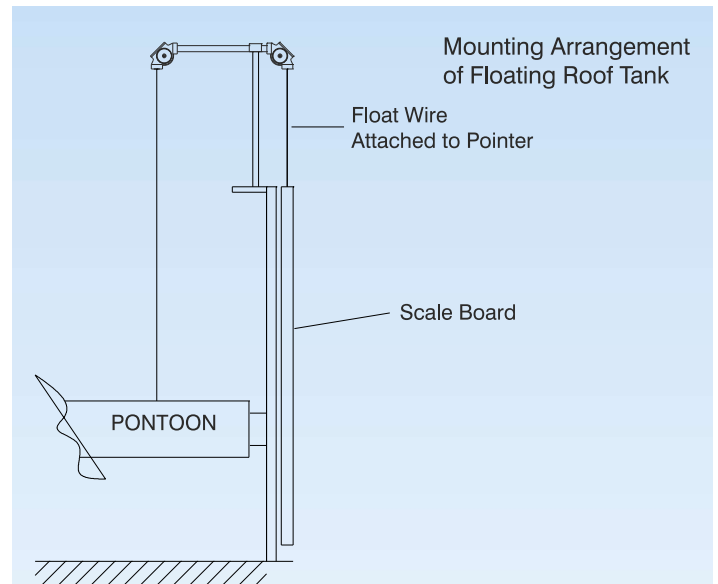
The principle of the float level indicator is to transmit movement of the float to the pointer over a set of pulleys by means of a float wire/cable. The pointer houses a magnet. A side mounting level switch is attached to the side of the board of the float level indicator. As the pointer moves closer to the magnetic field, the repelling magnet inside the switch housing actuates a set of micro-switches. The magnet latch remains in the new position until the pointer comes back within the repelling magnetic field to actuate the micro-switches.

### Sigma Advant-edge

- ✓ Ease of maintenance, major cost reductions
- ✓ No specific restrictions on the number of switches.
- ✓ Virtually non contact type of switching.
- ✓ Dangerous liquids are not drawn into any external chamber.  
NO PROCESS CONTACT.
- ✓ Switching area is isolated from the process liquids.
- ✓ Set point can be changed at any point of time by simply moving the level switch to the desired switching level.
- ✓ Once the board is installed, the switching point required is directly available on the board. Makes installation fast
- ✓ No nozzles to blank for maintenance.
- ✓ No isolation valves to control.
- ✓ No tank downtime for maintenance of level switch.
- ✓ Extreme scalability – Process temperature / pressure / chemical compatibility issues with regular switches directly fitted to the tank are eliminated.

### Specifications

Type	: 2 SPDT, Micro, 10 A @ 250 V AC / 0.2 A @ 250 V DC
On / Off Differential	: within 25 mm
Switch enclosure	: Die cast Aluminum IP 67 / Flame proof Group IIC
Cable Entry (Dual)	: 3/4" ET / 1/2"NPT
Fitting Components	: AISI 304





Model Number Coding for Float Level Indicator (optional Level Switch)

FLI	Type	Design	Connection	Material of Float	Special Feature	Range in meter
Float Level Indicator	F - Full Scale H - Half Scale	O - Overhead U - Sump / Underground F - Floating Roof	F-Flanged T- Threaded S-Socket Weld B-Butt Weld	4-SS304 6-SS316 4L-SS304L 6L-SS316L P-PP V-PVC T-Teflon S-Specified Material	N-None V - Vapour / Liquid seal Assembly L - Lining / Coating on Float S - Level Switch	Specify

**Model Decoding example: FLI-F-O-F-4-V-4m**

**Float Level Indicator, with**

- Full Scale Type
- Overhead Design
- Connection Flanged (specify Connection Details & Size)
- SS 304 Float
- Vapour / Liquid Seal Assembly
- 0 - 4 m

**Note**

All the Float Level Indicators / Float Level Indicator with Level Switches mentioned in this catalogue are our standard design. If the standard items do not meet your requirements, we can modify them to meet your specifications and would appreciate the opportunity of making suggestions to cover your application, based on engineering principles. SIGMA reserves the right to modify specification / design from time to time, which is deemed suitable for the product without prior intimation.

**Note**

- Model Coding is categorized as per the specification of the product, for ease of selection and ordering.
- In case of choosing multiple specification under a specific category, mention the 2nd / 3rd code with a bracket, after the 1st code.
- For ordering Level Switch with Float Level Indicator, specify the number of Level Switches required.
- In case of doubt, contact SIGMA for assistance in arriving at the model code / for specification.