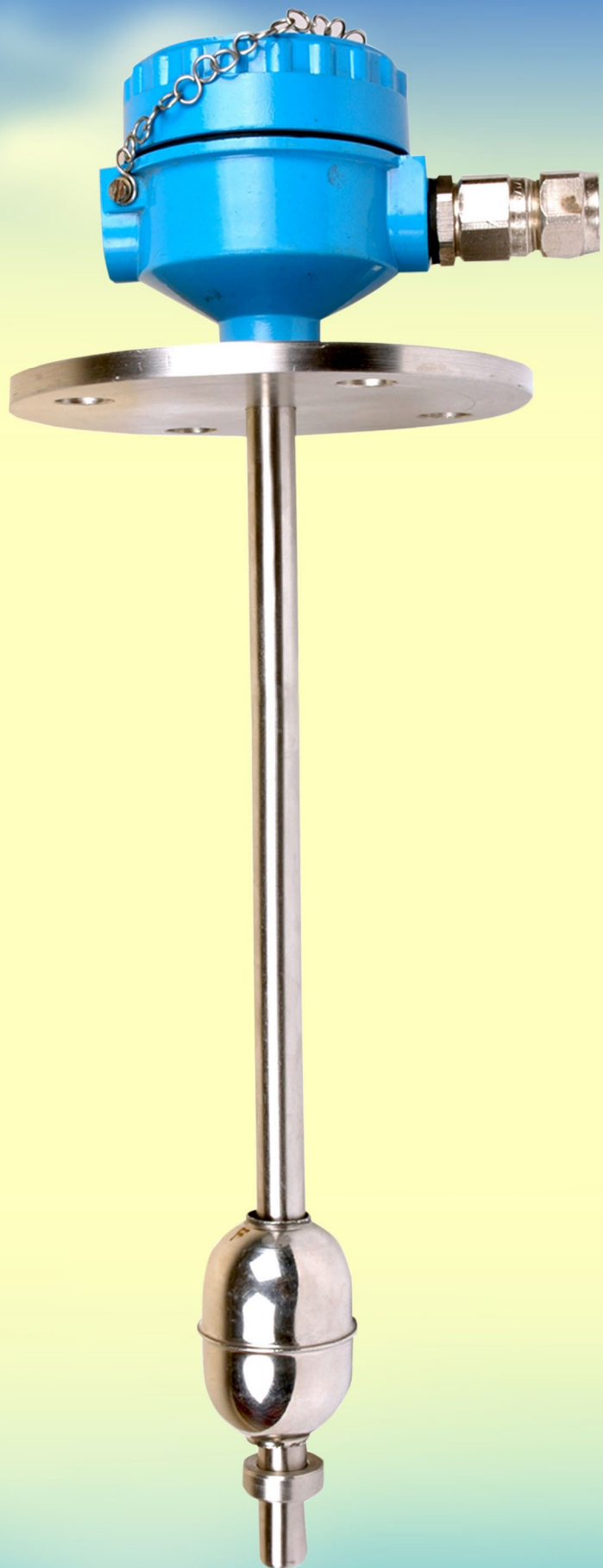


FLOAT OPERATED LIQUID LEVEL TRANSMITTER

..... for OEMs



Float Operated Liquid Level Transmitters

- # Length up to 5 metres
- # Alloys or Engineering Plastic Wetted parts
- # Analog Output
- # Field Calibration

CONSTRUCTION

Float Operated Liquid Level Transmitter consists of non magnetic sealed stem containing series of reed switches and resistors, float carrying magnet, mounting adaptor (or flange) and enclosure containing electronics.

OPERATING PRINCIPLE

Stem carrying series of reed switches and resistors forms a " Potentiometer " circuit which extends to the full indicating length of the transmitter. The reed switches are tapped at regular intervals and this tap off point is connected to electronics in enclosure. As the float travels through the indicating distance, the magnet located within it tap off the reed switches there by varying the resistance fed to the electronics, which in turn converts the change in resistance to industry standard analog output.

TYPICAL APPLICATIONS

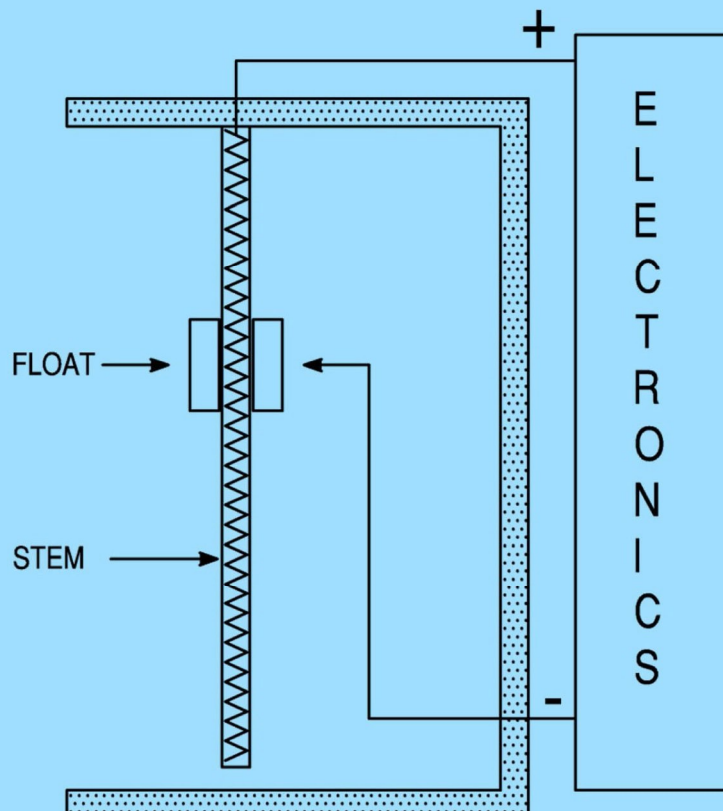
Consider our transmitters for all your continuous liquid level monitoring needs like Water, diesel, lube oils and fuels, chemical and petrochemical liquids. Here are just few areas where transmitters can be used.

- # Utilities
- # Beverage Industry
- # Medical
- # Pharmaceuticals
- # Food Processing
- # Breweries, etc.

LIMITATIONS

Float Operated Liquid Level Transmitters doesnot work satisfactorily in highly contaminated liquids and liquids with high viscosity.

For Sensors with more than 3 metres, it is recommended to provide anchoring at the bottom. Also splash gaurd is recommended where high turbulance of liquid exists. Consult us for further details.

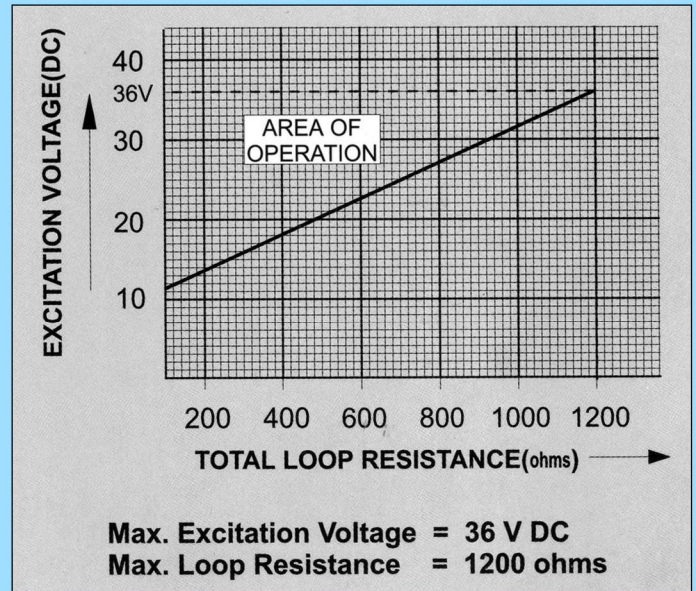


TECHNICAL DATA

Overall Length	: 300mm to 5000mm
Measuring Error	: ± 0.25 % of Span
Output Temperature Co-efficient	: $\pm 0.007\%$ / °C
Resolution	: 10mm
Ambient Temperature	: - 40°C to 60°C
Liquid Temp. Range	: - 40°C to 120°C
Liquid Min. Density	: 0.8 gm/cc
Max. Pressure	: 10 Kg/cm ²
Protection Category	: Weather Proof Ip66 to IS:2147 (or) Flame proof Gr. IIA & IIB to IS:2148
Terminals	: Max. 1.5mm ² Flexible
Cable Entry	: M20 for Weather Proof : 3/4" ET for Flame Proof (Glands not Supplied)
Current Output	: 2 Wire, 4.... 20 mA
Process Connection	: 2 1/2 " BSP (Threaded) : 2 1/2" ANSI 150# (Flanged)
Span Suppression	: Min. 30% of Span
Zero Elevation	: Min. 25% of Span
Excitation Voltage	: 10 - 36 V DC
Loop Resistance	: Max. 1200 OHMs (Ref. Excitation Voltage v/s Loop Resistance Graph)

Excitation required for 4.... 20 mA Transmitters.

The minimum excitation voltage required for operations of transmitters with 4....20 mA DC signals can be determined for a given total loop resistance from graph shown (Total loop resistance = The sum of DC termination resistance plus loop resistance). For Optimum Operation, the excitation voltage should be above the minimum load line for the related loop resistance.

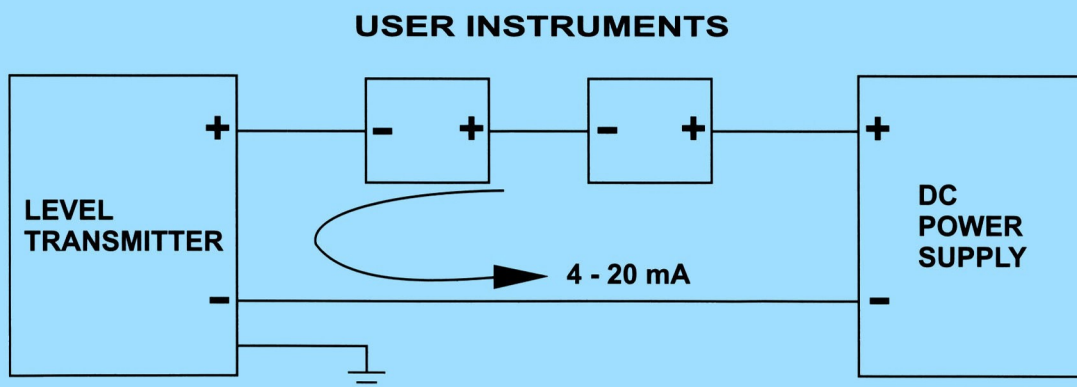


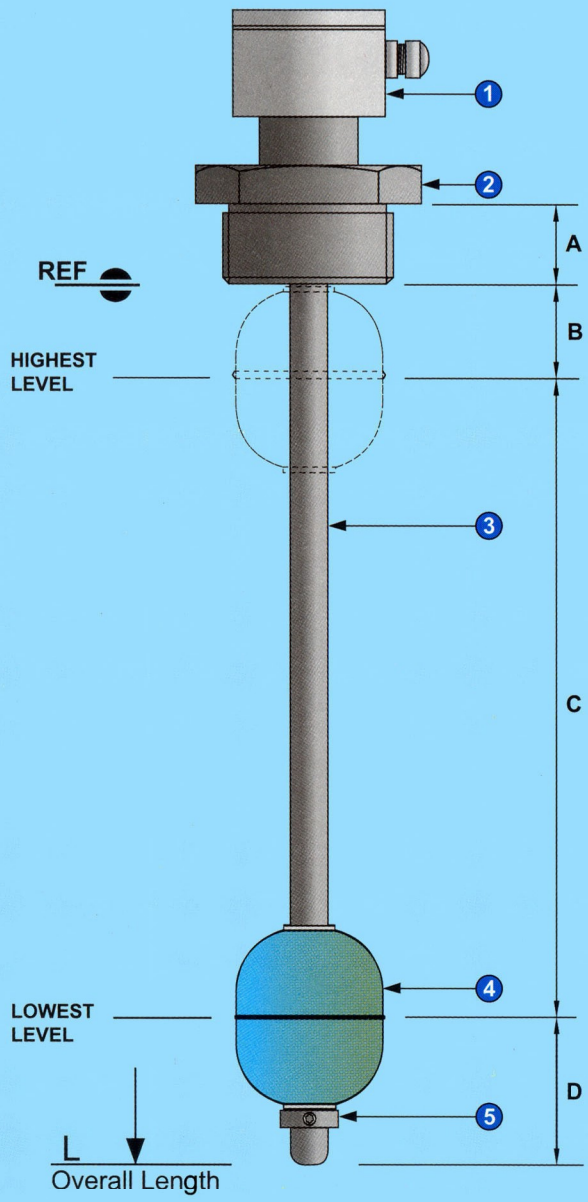
Also Excitation Voltage can be calculated Mathematically.

DC Excitation Voltage in volts $\geq 10 + 0.02R$

R = Total Loop Resistance in ohms.

TYPICAL WIRING





NOTE : Analog Output : 4 mA @ Lowest Level
 : 20 mA @ Highest Level

A (Thread Length) = 20mm
B (Top Dead Band) = 35mm
C (Indicating Length) = L - (B+D)
D (Bottom Dead Band) = 45mm

- 1 - Aluminium Enclosure**
- 2 - Mounting Adaptor**
- 3 - SS316 Stem**
- 4 - SS316 Float**
- 5 - SS316 Float Retainer**

We can also manufacture transmitters with various wetted parts like Polyurethane, PP, PVC, PTFE, etc against specific request.

ORDERING INFORMATION

FLT / _____ **/** _____ **/** _____ **/** _____ **/** _____

Float Operated Liquid Level Transmitter

PROCESS CONNECTION

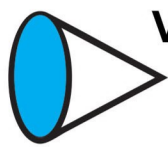
F - Flanged (2 1/2" 150# ANSI)
 S - Screwed (2 1/2" BSPM)
 O - Others (Specify)

ENCLOSURE

W - Weather Proof
 E - Flame Proof

LENGTH (in mm)

since continuous development is our policy, the above specification and details may change without prior notice CT-010/FLT/01-19/R 01



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