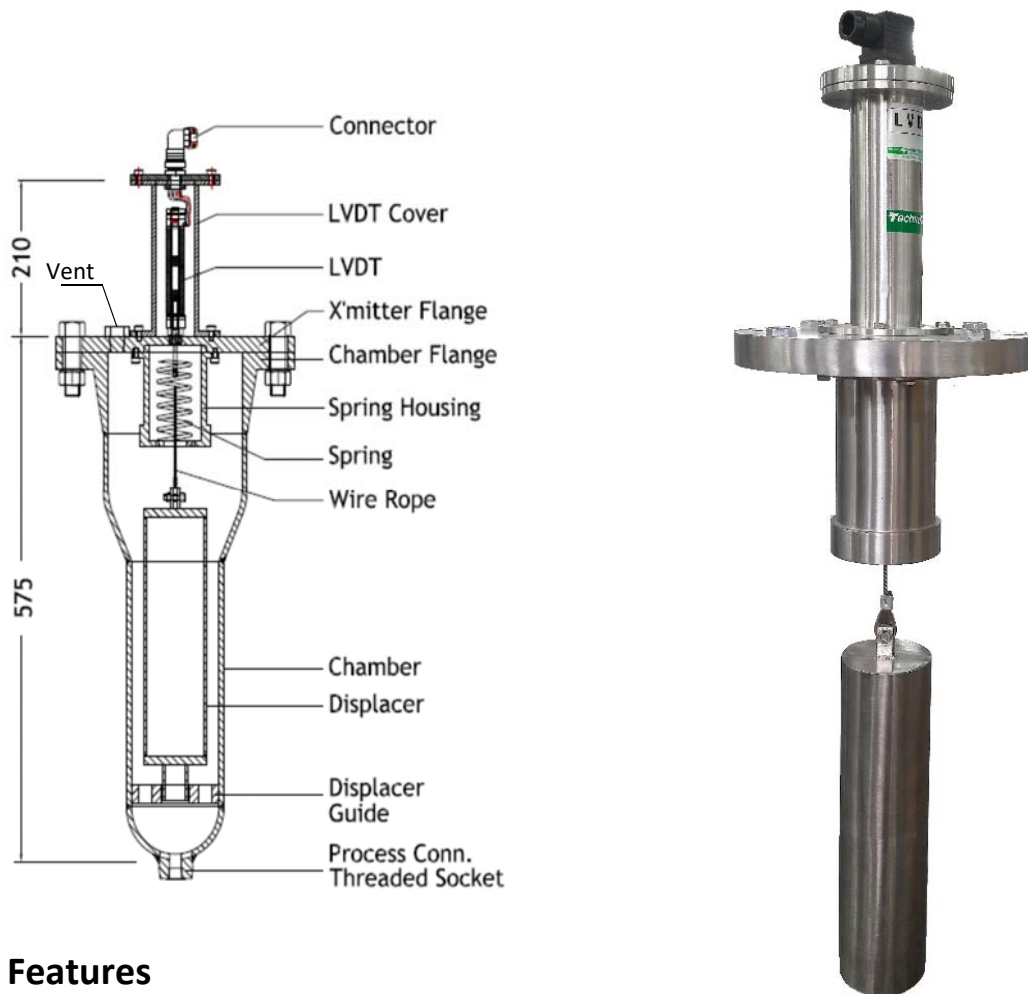


Displacer Level Transmitter with LVDT- 'DTL'

Level transmitter, works on Archimedes principle of buoyancy using displacer and LVDT technology alongwith microcontroller based remote electronics, suitable for radiated zone in nuclear power plants.

Fig 1



Salient Features

- Easy to install
- Resistance to vibration
- Radiation qualified
- Factory calibrated with isolated outputs of 3 nos.

Construction & Operation (fig 1)

It consists of a displacer attached to a LVDT core through spring housed in seal pipe and separate Microcontroller based signal convertor. According to change in liquid level, displacer moves in vertical motion due to change in buoyant force. The core attached to a displacer also moves within LVDT to generate resultant signal which is connected to signal convertor to provided three isolated outputs.

Specifications

Technology : LVDT

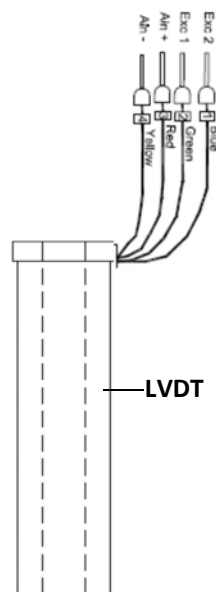
Level Transmitter

Measuring Range : 250 mm (Higher range on request)
 Transducer : LVDT (Radiation resistance qualified)
 I/P Excitation Volt : 3 Vrms x 2.2 KHz frequency
 Mechanical Stroke : ± 6 mm
 Sensitivity : 35 mV/V/mm
 Accuracy : ± 5 mm (± 2 mm on demand)
 LVDT Cover : SS316L
 Connector : 7 pin circular receptacle socket & right angle plug
 Transmitter Flange : 4" NB ASME 150# RF
 Spring : Inconel X750
 Spring Housing : SS316L
 Displacer : SS316L x $\varnothing 73$ x 280 mm HT
 Wire Rope : SS316L x $\varnothing 3$ mm
 Chamber bottom : SS316L x 4" Sch. 40 with dish end
 Chamber Flange : SS316L x 4" NB ASME 150# RF
 Process Connection : SS316L x Flanged or Socket weld or Threaded socket
 Vent Plug : $\frac{1}{2}$ " NPT Plug

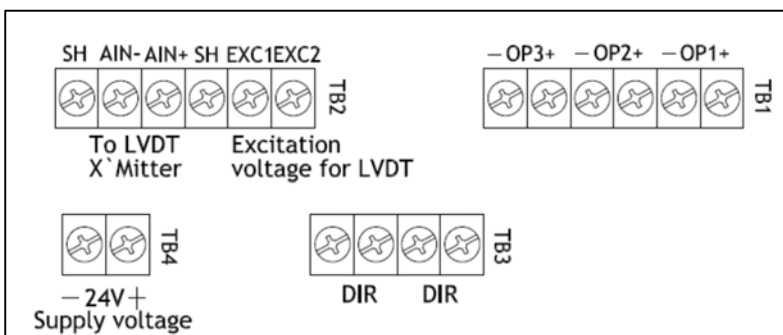
Signal Convertor

Mounting : 19" Rack Mountable
 Supply : 24 VDC ± 10 %
 Input : Signal from LVDT
 Supply for X'mitter : 3 Vrms x 2.2 KHz frequency
 Output : 1. 0 to 10V DC (Null to one extreme position)
 2. a) -10 to +10V DC (One extreme position other extreme position)
 b) 0 to 10 V DC (Selectable thru jumper)
 3. 0 to 10V DC (Null to one extreme position)
 Accuracy : ± 0.2 % FS
 Indication : Green LED – Power ON; 7 Segment LED Display- 4-1/2"
 : Amber LED- DIR/ Red LED *DIR*
 Zero and Span adjustment for each o/p and display.

Termination LVDT



Termination Signal Convertor



Applications –

Radioactive dirty water, clean water