

Techtrol Ultrasonic Level Transmitter for Liquids - 'Ultratrol'

It is a reliable, non-contact type transmitter for continuous level & distance measurement of liquids.

Salient Features

- Compact & easy to install
- No moving parts & minimum maintenance
- User friendly program thru built-in keys & LCD
- Easy to calibrate without process medium

Construction & Working

It consists of an ultrasonic transducer integral with microcontroller based electronics housed in an enclosure. The ultrasonic pulses are emitted from the transducer towards the liquid surface and reflected back to the sensor. Time of flight i.e. travel time of signal is measured by microcontroller based electronics to provide 4-20 mA output.

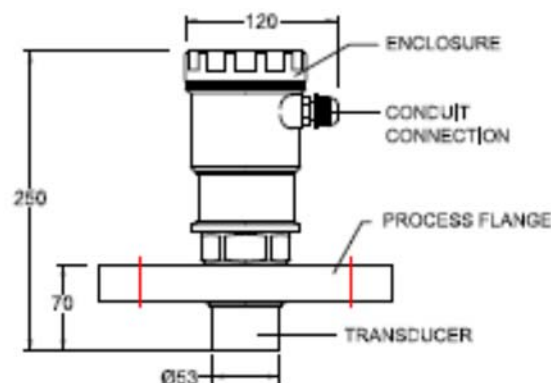
Note: X'mitter is not recommended for fuming & foaming liquids

Specifications

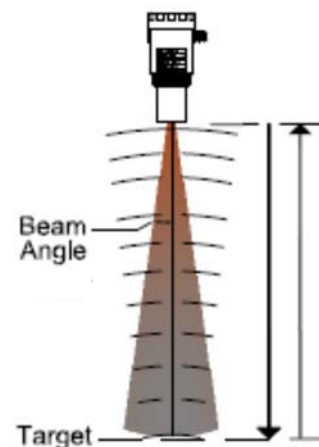
MODEL NO.	Ultratrol-1	Ultratrol-2
Measuring Range	5 meter	10 meter
Measuring Mode	Level, Distance	
Blanking Distance	450 mm	450 mm
Beam Angle	$8 \pm 2^\circ$	$10 \pm 2^\circ$
Power Supply	24 VDC + 10 %	
Power Consumption	0.5 W max	
Analog Output	4 to 20 mA, 2wire	
Max. Load	400 Ω @ 24 VDC	
Display	Integral 4 digit dot matrix LCD	
Accuracy/Resolution	± 0.5 % FSD / 1mm	
Transducer MOC	ABS	
Enclosure	ABS with polycarbonate window, IP65	
Cable Gland	M20 X 1.5	
Process Connection	2" BSP screwed x Flange 3"NB ASME 150# PP	
Optg. Temp.	-20 ~ 70°C	
Max Optg. Pressure	1 bar	
Accessories	Mounting Bracket (CS), Flanged Nozzle (CS), FRP Canopy, Signal cable, 2 core, 1 mm ² , PVC screened pair (in mtrs), Float Cell Assembly.	



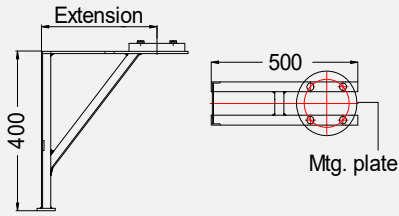
Schematic & Dimensions



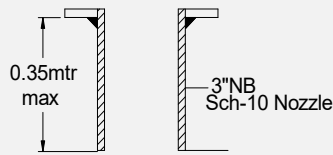
Operating Principle



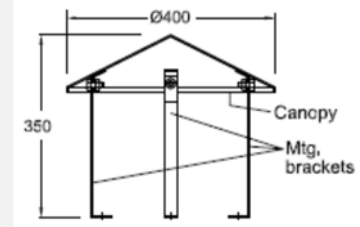
Accessories



1. Mounting Bracket (CS)
Easy Installation on Open Tanks

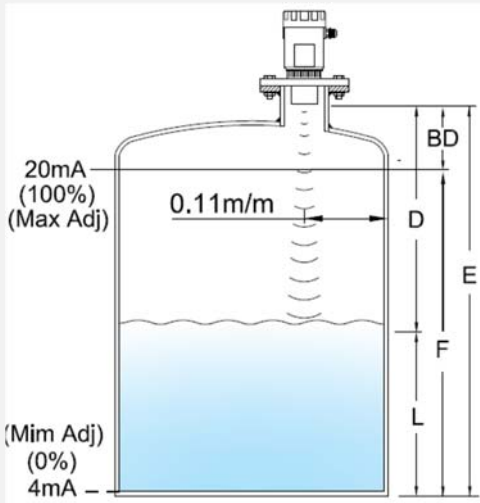


2. Flanged Nozzle (CS) 3" or 4" NB
Easy Installation on Closed Tanks



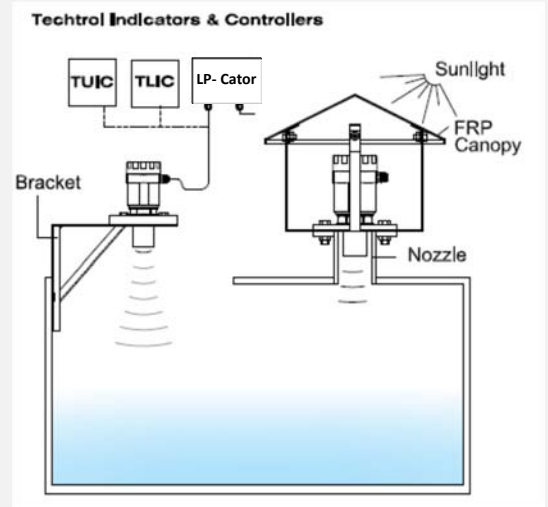
3. FRP Canopy
Protects LCD/Electronics from sunlight for outdoor installation

Installation



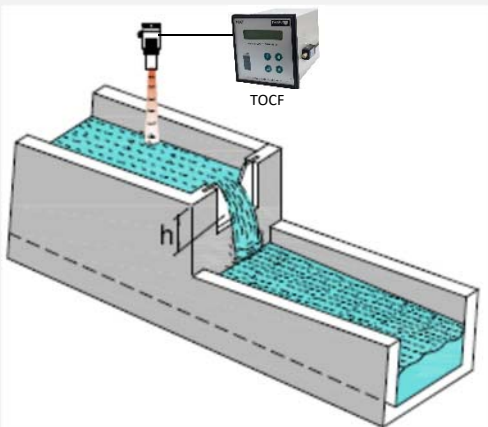
Closed Tank with Flanged Nozzle

BD - Blanking Distance
F - Measuring Span
E - Input Bottom Dist.
= Total Range from Transducer Face
D - Distance,
L - Level (E-D)

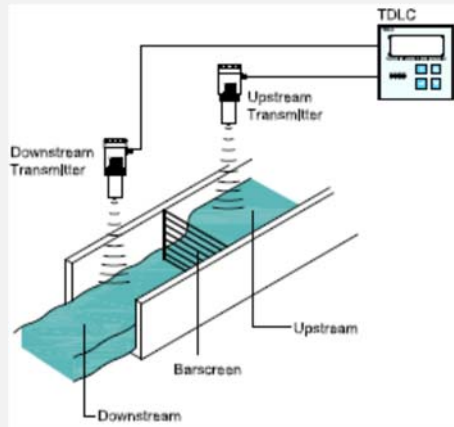


Open Tank with Mounting Bracket

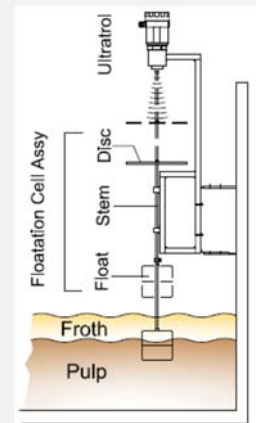
Applications



Open Channel Flow Measurement on Flume/V Notch/ Weir



Differential Level Measurement for Bar Screen using Two Ultratrol



Float Cell Assembly + Ultratrol for Interface Level Measurement

Open/ Closed Tanks, Cooling, Water Tower, River/Canal/Basin/Dam/Reservoir Level, Sumps, WTP, ETP, STP, Open Channel Flow, Differential Level Control (Bar screen), Loss of Head, Interface Level (Froth/Foam).

Services

Raw, Waste, Effluent, Sewage, Filtered, Treated, Sea Water, Coolant, Oil and Slurry

Model Identification

		Ultratrol -		
Range				
5 mtrs		1		
10 mtrs		2		
Process Connection				
3" NB ASME 150# Flange , PP			1	
4" NB ASME 150# Flange , PP			2	
Others			0	

Accessories to be ordered separately

1. Mounting Bracket, CS
2. Flanged Nozzle CS, 3" or 4"NB, Sch 10
3. FRP Canopy
4. Signal Cable, 2 core, 1 mm², PVC screened pair (in mtrs)
5. Float Cell Assembly

Techtrol Level Indicators & Controller - for remote or local indication and control. It is available in panel mounted or wall mounted (weather proof or Ex-proof) version. Refer catalog for details

1. **Techtrol Loop Powered Indicator – ‘LP-Cator’**
2. **Techtrol Level Indicator Controller – ‘TLIC’**
3. **Techtrol Universal Indicator Controller – ‘TUIC’**

Ordering Information

Model No x Liquid x Measuring Range x Operating Temperature & Pressure

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