



Partner for Level & Flow Measurement

## Battery Operated Ultrasonic Level Transmitter for Liquid

### Model-136 ULX

#### PRINCIPLE OF OPERATION

Ultrasonic level metering is based on the principle of measuring the time required for the ultrasonic pulse to travel from sensor to the surface of the liquid and then back. The ultrasonic sensor emits an ultrasonic pulse train and receives the echos reflected from the liquid surface. The received signal is processed by selecting the echo reflected by the liquid surface and calculating the time of flight, the distance to the liquid surface is measured.

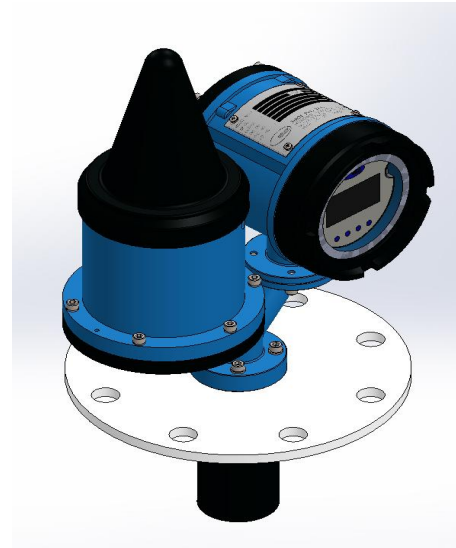
Ultrasonic Level sensor ,Amplifier & Transmitter module will wake up on request received from communication & data logger module ,take level measurement & returns the level data,device status & operating mode on serial interface.

#### APPLICATION

The Model 136 Ultrasonic Level Indicator Transmitter is specially designed to provide convenience of non-contact level measurement of Elevated storage reservoirs ,storage type vessels with some agitation and Open channel flow measurement. Distance and Percentage Level may also be displayed. Sophisticated design and rugged construction guarantees low maintenance.

#### Product Highlight

- ☞ Non Contact
- ☞ Time of Flight .
- ☞ Suitable for all Liquids
- ☞ Echo Wave Display
- ☞ Alarm / Status Output for Diagnostic Purpose



#### FEATURES

- ☞ Power Supply from Internal Installed Lithium Battery
- ☞ Built in data logger .
- ☞ Built in GSM Module
- ☞ Rugged Construction - Weatherproof IP 68
- ☞ 128 x 64 Graphical LCD Display
- ☞ Self diagnostic functions i.e. error messages on display provided to ease setting up
- ☞ Micro controller based Instrument
- ☞ All entries protected by password
- ☞ Temperature Indication
- ☞ Automatic Temperature Compensation
- ☞ Unaffected by product properties
- ☞ Dormancy mode for power saving during storage and transportation.

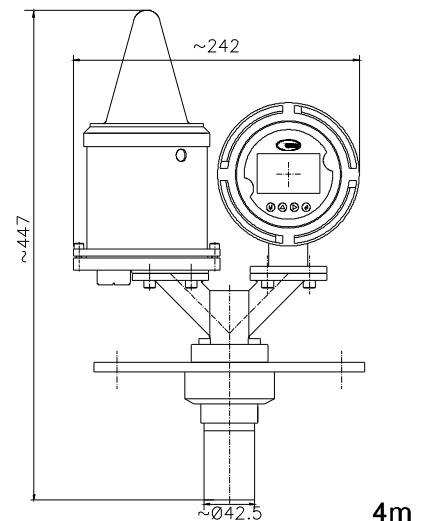
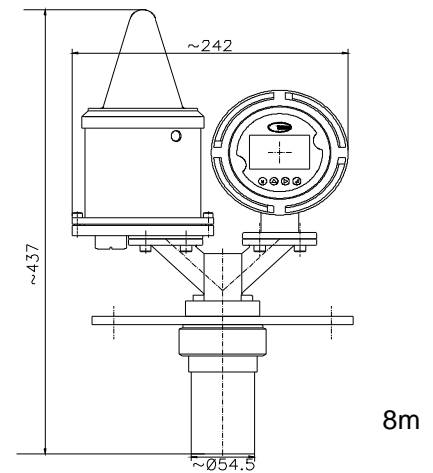
## SPECIFICATIONS

Measuring Range	4m / 8m
Power Supply	Internal Installed Battery ( 3.6V,19Ah X 5)
Battery Life	Up to 5 Years*
Dead Band (m)	0.25m for 4m, 0.35m for 8m
Process Connection	Flanged
Beam Angle	9° ± 2
Measuring Frequency	65 kHz- 4 m, 43 kHz- 8 m
Sensor Material	Polypropylene
Housing Material	Aluminium PU Painted
Ingress Protection	Weatherproof, IP 68
Storage Temperature	0° C to 70° C
Ambient Temperature	0° C to 55° C
Operating Pressure	Atmospheric
Sampling / Update Interval	Minimum 15 min to Maximum 24 Hrs
Accuracy	± 0.2% of the sensor range**
Repeatability	± 0.1%
Resolution	1mm for 4m & 8m
GSM Output	GSM Output: - Periodic (Data Send Interval) SMS on Maximum 10 Mobile Numbers
RS - 485 Output	2-Wire Half Duplex Modbus RTU Protocol with Configurable Baud Rates
USB Port	Used for configuration & fetching of logged data
Data Logger	With 512kb memory ( Can hold up to 29k records)
Display	128 x 64 Graphical LCD Display
Keyboard	Programming through 4 key
Cable Entries	Two Pin Circular Pg11 connector
Display Parameters	Distance, Level, % Level,volume,Flow,Linearised level

\* Battery Life depends upon the sampling interval and communication interval.

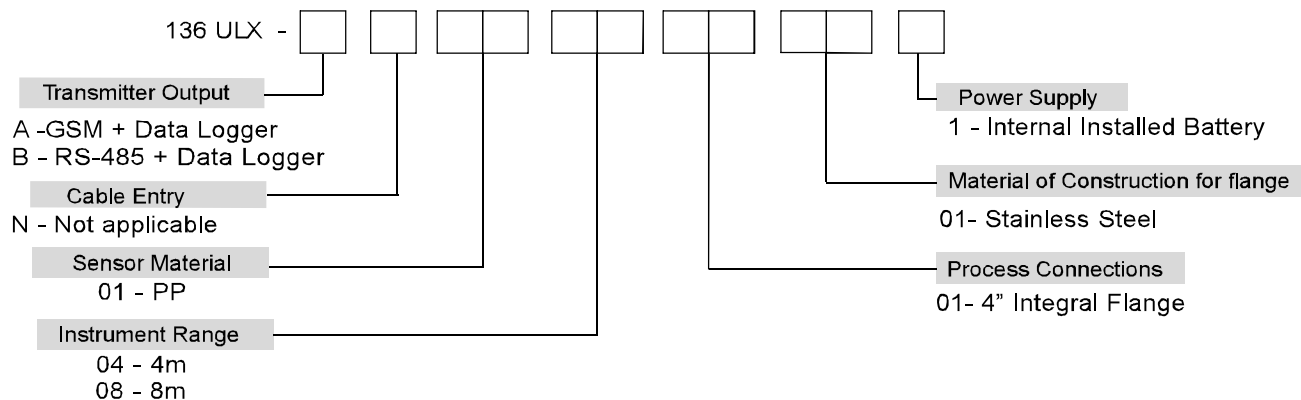
\*\* Under optimal conditions and stabilised sensor temperature.

## MECHANICAL DIMENSIONS



Note: All the dimensions are in mm unless specified

## ORDER CODE



\*\*\* Continuous developments may necessitate changes without notice.

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