

Smart Flow Logger



General Description

FLRT 11 is designed for defined input and measurement of flow rate & totalized water flow in open ducts and channels. It can be adapted to any type of weir or flume. It can also be used in conjunction with any type of flow meter as Flow Logger cum RTU.

Features

- Supplied with Ultrasonic Level Sensor or Radar Level sensor when used as Open Channel Flow Meter
- Facility to calibrate the Input range in nonlinear scale up to 200 steps
- TFT screen Display with touch screen operation and settings
- Built in totalizer function with optional relay contacts for high and low flow cut off
- Built in RTC with data memory of 1 to 24 months data log subject to logging rate
- USB Port to download the data manually on Pen Drive
- Optional digital output of RS485 Modbus RTU protocol
- Multiple AC & DC Supply system options 12V DC, 24V DC, 230V AC.
- Auxiliary supply of 12V DC, 24V DC for external sensor is available
- Optional RTU function with wireless GSM and GPRS communication
- Flow Reporter software available for remote monitoring, configuration and data retrieval from multiple locations

Applications

- Measurement and recording of flow in public and industrial sewage plants
- Monitor and control the municipal pumping stations
- Measure and record flow thru open channel, streams & rivers
- Can be used as Flow Logger/RTU in Wireless Data Acquisition system.

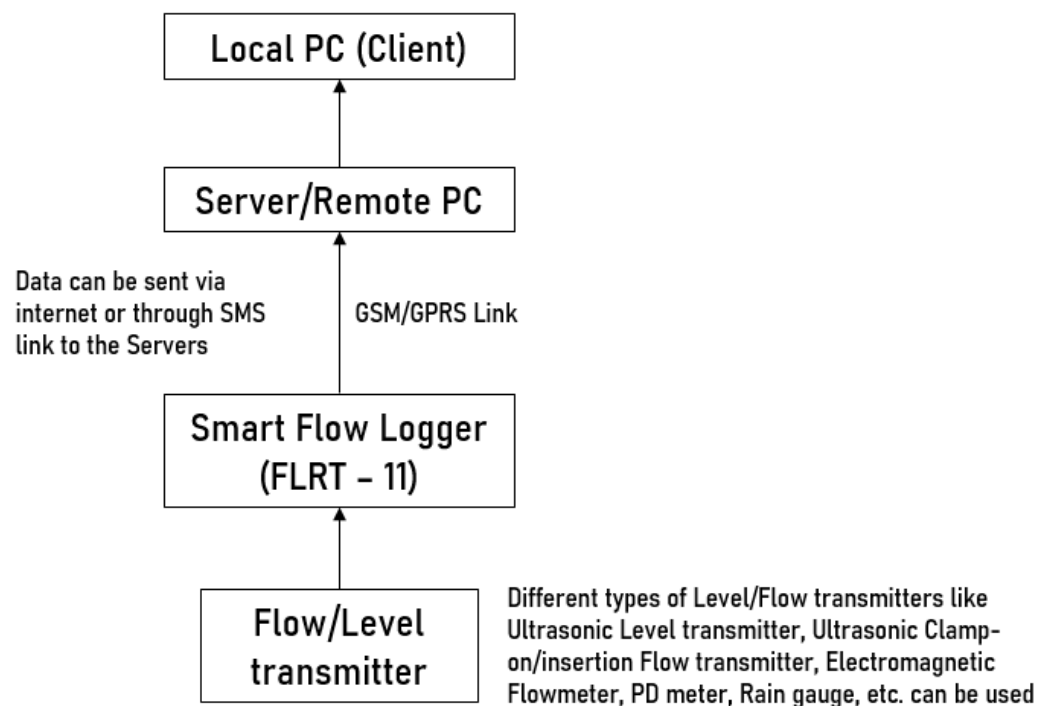
Function

When Input from Flow Meter, Flow sensor or Level transmitter in terms of Pulse, Digital or Analog signal is connected to FLRT 11, it can measure, calculate & totalize the flow based on one of the three following principles:

- Programmed formulas for different dimensions of the most common flumes and weirs such as Cut Throat, Parshall flumes and V-notch weirs based on ISO 1438
- In case of Flow measurement on the basis of Area Velocity calculation, Input range can be programmed in nonlinear scale up to 200 steps
- By simple zero & span setting, when used as Flow Logger with Flow Meter / Sensor having output range in linear scale.

When used as RTU, FLRT 11 can communicate to remote location via GSM or GPRS option at set frequency, from 1 second up to 24 hours.

System Architecture



Technical Specifications

Service	Flow Indicator, Totalizer, Flow Converter, Flow Logger & RTU
Input	Pulse, 4 to 20mA, RS485 Modbus RTU
Range	0 to 99999 LPM
Unit of measure (flow)	LPM, LPH, m ³ /m, m ³ /h
Unit of measure (totalizer)	L, KL, ML, m ³
Temperature	-25 to 60 °C
Supply	12 V DC, 24 V DC, 110 V AC, 220-240 V AC
Relays (optional)	2 Potential Free, High & Low cut off
Relay rating	2A, 230 V AC/ 0.5A, 24 V DC
Accuracy	+/- 0.5% FS
Averaging time	1 to 60 secs (Configurable)
Logging frequency	1 reading/sec up to 24 hours
Display	TFT Screen Size 4" to display characters up to 24 digits
Operation & setting	Touch Screen
Program	Non-volatile Flash, Linear & Non Linear
Modes	RUN mode, SETTING mode
User levels	2 Levels, Supervisor & Operator - Supervisor: Calibration, Modify, View Operator: View
Memory type & size	EEPROM 512KB, expandable up to 2GB
USB port	Pen Drive connectivity for data download
GSM / GPRS	900Mhz GPRS Modem with external antenna
Housing	Polystyrol, 185 x 240 x 115 mm (H*W*D)
Degree of protection	IP-65
Mounting	Indoor, Wall mounted