



OPEN CHANNEL FLOW MEASUREMENT

FlowSys & Aqualogger

Logger/transmitter unit with
high resolution DFU
transducer



Features:

- Fully BS 3680 compliant measurement for flumes and weirs
- User-friendly : easy installation and configuration
- Accommodates Flow, temperature and pH monitoring
- 56 days of memory
- 24-point look up table for non-standard devices
- Versatile windows based reporting software
- High resolution 80 KHz sensor

Benefits:

- Easy operation and programming
- Practically maintenance free
- No moving parts
- No sensor fouling due to non contact operation
- 3 off 24 hr summaries may be displayed whilst still operating
- Integration with GPRS provides remote monitoring of all parameters
- Automatic generation of hard copy reports within a 1-24hr period

Applications:

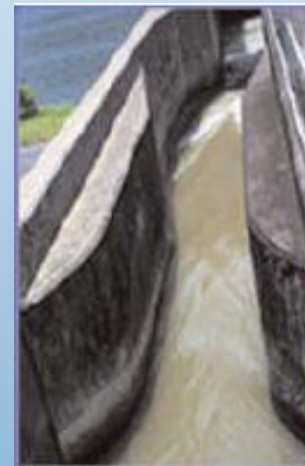
- Municipal & Industrial Effluent monitoring
- Drainage & irrigation ditch monitoring
- Complete solution for trade effluent data logging of pH, T, Flow
- Flow pacing of samplers

FlowSys-Aqualogger is a downward facing ultrasonic (DFU) level sensor, flow converter & logger, measuring flow in open channels in conjunction with a variety of primary devices, or custom calibrated against head using a programmable 24 point look up table.

Four programmable relays are available and may be used for flow paced sampling, and high /low alarms for pH/Temp/flow. One analogue output for flow rate is also provided.

Data display is via a 4 line x 20 character backlit scrolling display giving: Flow rate, total flow, interval flows, distance to water surface, pH & Temp (where applicable), date and time.

The internal data logger has 125K non volatile memory giving 56 days data at 5 minute intervals, (expandable to 4mB & 3 yrs). Data download is either direct to PC, or remotely via modem, and a full analytical software package for tabular and graphical analysis comes with each unit



Typical
installation
scenarios



System

Operational Principle:	Downward facing ultrasonic interface detection and depth calculation
Range:	distance of interface from sensor 0.25m to 6m
Resolution:	1mm
Accuracy:	Better than $\pm 0.1\%$ of measured distance
Data Storage:	125K mB expandable to 4 mB
Pre-programmed primary devices:	V-notch thin plate weir, rectangular thin plate weir, rectangular BS Flume.
Non standard structures:	24 point programmable look up table

Transmitter/Controller Specification

Mechanical Construction:	Dimensions (hwxwd):	217 x 263 x 132 mm
	Weight:	<1 kg
	Materials:	Polycarbonate
	Ambient conditions:	± 20 to $+50^{\circ}$ C
	Weather Protection:	IP 65
Outputs:	Display:	48 line x 20 character backlit LCD
	Current loop:	1 off 4 ± 20 mA, galvanic isolated (max. 500 Z)
	Relay outputs:	4 off SPCO 5A 230VAC non inductive
		1 off lost echo relay
Inputs:	4± 20mA:	1 off for pH measurement
	Data interface:	RS 232/422 for communications and data download
Power requirements:	Supply voltage:	230 / 115 V AC, or factory set at 24VAC/DC
	Load:	20VA

Sensor assembly Specification

Mechanical Construction:	Materials:	HDPE
	Weight:	0.6Kg
	Dimensions:	71mm max dia. 72mm depth + 30mm stub
	Cable length:	Specify at order. Max= 50m. (greater distances are possible but require extra hardware – please consult at time of order)
	Mounting:	Threaded stub: M20 (male) + damping washers
	Distance to TWL:	Recommended that sensor surface be at least 600mm above TWL
	Operating Frequency:	80KHz
	Dead Band:	250mm
	Beam angle:	6 $^{\circ}$ about central axis
	Ambient Temp:	± 20 to $+40^{\circ}$ C
	Accessories:	Sensor sun shade for outdoor applications Sensor mounting bracket

Ordering Information

When placing an order it is important to indicate the following requirements to our sales staff:

1. Is transmitter to be wall mount or rail mount? If rail what is rail diameter? Do you want a rail mounting kit?
2. How far is the sensor from the transmitter?
3. Is a sensor mounting bracket required?
4. Is a sun shade required?
5. What power supply Voltage is to be used?
6. Is a secondary housing for the transmitter required for extra protection?
7. Do you require a primary device or advice on suitability?

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