Mainstream IV

Portable Ultrasonic Area-Velocity Flowmeter

FLOW MEASUREMENT DATA LOGGING LEAK DETECTION PRESSURE CONTROL ENVIRONMENTAL MONITORING

KEY BENEFITS

- Quick to install – no weirs or flumes.
- Bi-directional flow measurement for forward and reverse velocities from 10mm/s up to 5m/s.
- Streamlined velocity probe eliminates fouling and reduces flow disturbances.
- High sensitivity extends applications to 'clean' water.
- Powerful, easy to use Winfluid PC software simplifies flow meter commissioning.
- Sophisticated ultrasound processing ignores spurious signals.
- Ultrasound signal quality monitor confirms measurement integrity.
- High capacity data logger for long term records of level, velocity and flow rate.
- Opto-isolated switch outputs for alarms and controls.
- Optional modem for dial-up access and internet connectivity.

The Mainstream IV Ultrasonic Area-Velocity Flowmeter provides accurate flow measurement for open channels and part filled pipes, making it an ideal water monitoring solution. The unit has multiple applications, including effluent monitoring, waste water treatment, industrial flow measurement, irrigation channels, river/stream flow measurement and water distribution. It uses the area-velocity method to give a continuous or time sampled measurement of fluid flow and is suitable for all water types, from clean water to raw sewage, in channels from 150mm to 3meters. It is suitable for any liquid containing bubbles or suspended solids, even in minute quantities.

Signals from the probe are analysed using patent pending Phase Coherence Processing which only accepts signals containing verified velocity information. A high quality signal confirms the integrity of the measurement and the liquid level is measured by a submerged pressure transmitter or ultrasonic sensor. The flow cross-sectional area is deduced from the liquid level measurement and a stored description of the pipe or channel cross-section. The flow velocity is multiplied by the flow cross sectional area to give the flow rate, and integrated to give the total discharge.

Data is displayed on a large character LCD display screen. The unit is powered by a rechargeable battery and can store approximately 250,000 measurements corresponding to more than six months data at 2 minute intervals. It is also available with an optional integrated modem with internet connectivity. Keenly priced and simple to install, Mainstream IV is the ideal solution for high quality environmental monitoring, ensuring accuracy, reliability and convenience.

EASY TO INSTALL | LCD DISPLAY | DIGITAL | HIGHLY ACCURATE

Fcs
Fluid Conservation Systems

For more information call (513) 831-9335
or visit www.fluidconservation.com

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Power Inputs	Internal 12V battery. Connectors for external 12V and 24V supplies.
Internal Battery	Low cost exchangeable deep discharge 12V 7.5 Ah rechargeable battery.
	One year endurance when operated at 1 measurement per minute. Optional internal 12 A battery available
Battery Charger	Internal Battery must be exchanged or re-charged by an external battery charger
External 12V supply	Connection for external 12V battery pack for extended measurement period
External 24V supply	Connection for external 15-28V power input compatible with solar panels and industrial 24V supplies.
Power Supply Monitor	Power monitoring circuits track supply status. Supply voltages canbe displayed on LCD, viewed via the Winfluid software, stored in the data logger, and used to control switch outputs. Power supply condition visible on status LED.
File System	Flash file system with 4 Mbyte capacity and data retention of 20 years.
File Content	Configurable to record any combination of power supply voltages, level sensor loop current, level, area, ultrasound signal quality, velocity and flow rate, plus forward, reverse and total flow quantities
Recording Mode	Proprietary data compression algorithm for extended logger capacity and rapid data retrieval
Recording Interval	Configurable from 5 seconds to 1 hour.
Data Capacity	Logger holds more than one year of data when recording all available measurements at one minute intervals.
Retrieval Time	Less than 15 seconds to retrieve one month's data recorded at 1 minute intervals
Local	RS232 compatible interface with automatic baud rate detection.
	Supports 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600 and 115200 baud.
Software	Winfluid software for system configuration, diagnostics, realtime measurement display and data retrieval.
On/Off Switch	Push to start - push to stop. Requires 10 seconds continuous pressure to switch flowmeter off to prevent accidental de-activation.
Status LED	High intensity flashing LED indicates system operation and battery status without opening enclosure or entering manhole. LED also indicates activity on communications port
LCD	Two line x 16 character LCD. Automatic activation when integral light sensor detects enclosure is open. Configurable display sequence includes date, time, and any combination of measurement data Country specific caption text and date/time format.

FCS reserve the right to change the specification of any product without prior notice.

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