6526 (Starflow): Water Flow Meter (Doppler)
(For measurement Flow, Total Flow, Velocity, Depth, Temperature)

Key Features:-
- Measures forward and reverse
- Measures Velocity, Depth, Flow, Total Flow, Temperature
- Programmable to compute flow in pipes and open channels
- Operates in water qualities from fresh water streams to primary sewage
- Communicates via RS-232 and SDI-12
- Battery powered - ideal for use in remote locations

Applications:-
- Irrigation
- Sewer monitoring
- Storm water monitoring
- Waste water treatment Plant monitoring
- Natural Streams and Rivers
- Drainage
- Estuary and tidal Studies
- Industrial Effluent Metering
- Nutrient Load Management

The Starflow Ultrasonic Doppler Instrument is a compact, easy-to-use system for measuring the velocity and depth of water in drainage channels, large pipes, and in rivers and streams. It is suitable for use in a wide range of water qualities, from sewerage and waste water to clean streams, potable water, and even sea water. The instrument measures forward and reverse flow conditions and may be programmed to compute Flow Rate and Total Flow in pipes (Minimum pipe size should be 300mm (12") diameter) and open channels. The Model 6526 Starflow combines an ultrasonic transducer assembly (profiled to reduce flow disturbance) with signal processing electronics. It is designed to be placed at (or near) the bottom of a water channel for "upward looking" measurement. A single cable connects instrument to a 12VDC power source.

Water velocity is measured by the Starflow ultrasonic Doppler principle which relies on suspended particles or small air bubbles in the water to reflect the ultrasonic detector signal. It measures **water velocity, depth, flow, total flow, Water temperature** enabling you to do a complete stream study with a single instrument. Water temperature is also measured so the instrument can adjust for the change in velocity due to speed of sound. Starflow contains a fully featured Micrologger with **512KB** of memory; enough for 300000 Data measurements. It will acquire instantaneous, **maximum, minimum and averaged readings**. Starflow is equipped with the SDI-12 communications facility, intelligent battery supervision, a modem interface and is fully programmable. The 6526LCD Starflow Liquid Crystal Display Module, interfaces with the 6526H Starflow ultrasonic flow meter. Doppler Instrument and displays the values obtained from the most recent scan on demand. The 6526LCD is packaged in a compact weatherproof polycarbonate enclosure, fitted with pre-wired SQL type connectors.

6526LCD Starflow Liquid Crystal Display

The 6526LCD Starflow Liquid Crystal Display (LCD) Module interfaces with Starflow Ultrasonic Doppler Instrument. It displays the values obtained from the most recent scan. The Starflow's software defines which parameters will be displayed. The 6526LCD is packaged in a compact weatherproof polycarbonate enclosure, fitted with pre-wired SQL type connectors. These connectors enable direct connection to an instrument, and computer/external power supply. The SQL connections are designed to be 'pass through' so that the computer can connect to the instrument without disconnecting the power or display. The module display is refreshed every scan (normally 15 seconds with a Starflow or 60 seconds) and will display a test message when power is applied until a message from the instrument is received. Pressing the button on the front panel resets the display.

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Technical Specification

Velocity
Velocity Range : 21 mm/s to 4500 mm/s bi-directional
Accuracy : 2% of measured velocity
Resolution : 1mm/s
Signal Path : 30° above horizontal

Depth
Depth Range : 0 to 5 meter
Resolution : 0 to 2.5m – 2.5mm, 2.5 to 5m – 5mm
Accuracy : ±0.25% of calibrated lower range
Type : Hydrostatic pressure sensor vented to atmosphere

Temperature
Temperature : -17°C to 60°C
Resolution : 0.1°C.

Flow Computation : Flow rate, totalised flow
Channel Type : Pipe, open channel, natural stream
Measurements : Measures Velocity, Depth, Flow, Total Flow, Water Temperature

Integrated MicroLogger
Storage Memory : 512kB, CMOS RAM
Data Storage : up to 300000 data
Log Interval : Programmable, 5s to 24 hours
Scan Rates : Programmable from 5 seconds to 5 minutes
Memory Duration : Log Interval (15 Min. 150 Days, 10 Min. 125 Days)
Communication : RS-232/USB (Optional)
SDI-12 : 1200bps instrument channel
Control : CMOS output trigger

General
Cable : 15 meters, 9 way vented (optional: User specified up to 100 meters)
Power Source : External battery 12V DC
Voltage : 12 VDC to 15 VDC,
Current : 70uA standby, 200mA active, 90mA communications
Average Power : 0.3 W (1 Min. scan rate)
Operating Temp : 0°C to 60°C water temperature
Pipe flow measurement : Minimum pipe size should be 300mm (12") diameter
Material : PVC body, stainless steel mounting plate
Dimensions : 290mm x 70mm x 25mm
Weight : 850g (2kg with 15m cable)

6526LCD: Digital Display Unit
Dimensions (HxWxD) : 115 x 105 x 55mm
Display Format : 4 lines x 16 characters
LCD Type : Supertwist (STN), yellow-green
Optimum Viewing : 6 o'clock
Power Supply : 8 to 18 VDC @ 20mA
Operating Temp : 0° to 50°C
Storage Temp : -10° to 60°C
Connectors : Type II Connectors SQL 7 pin connectors (male PC connection and female Starflow connection)
Serial Signal : HSIO Standard Synchronous Protocol – RS232 also available

Unidata Pty. Ltd. is based in the Perth, Australia, and specializes in design, manufacture, supply and support of new technologies for global environmental monitoring market a market which Unidata has been servicing for over 30 years.