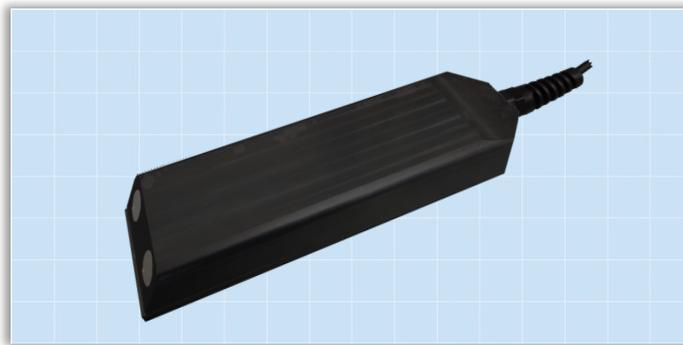


CROSS SMART SENSOR

DV7: Ultrasonic Velocity Sensor

Digital technology for optimized measures



FEATURES & BENEFITS

- Easy installation and fast setup with no velocity calibration required.
- Completely sealed sensor withstands submergence and prolonged surcharge conditions.
- Advanced, ultrasonic 1 MHz Doppler technology avoids signal dropouts and ensures high levels of measurement accuracy even in low flow, reversed flow, full pipe and relatively clean water conditions.
- Signal auto-correlation detection and processing technology significantly reduces the noise caused by interference, which improves anti-jamming capability of the instrument.
- RS485 with Modbus RTU protocol.
- Fully compatible with Delta-Phase View™ for easy setup and data logging.
- POM Housing, Optional SS 316L.

TYPICAL APPLICATIONS

- Flow rate / cross-sectional area flow meter
- With Doppler velocity sensor and ultrasonic level sensor used for sewage pipelines such as non-full pipe or open channel without primary device.
- Flow Meter
- Portable instrument with Doppler velocity sensor used for river course and sewage pipelines.

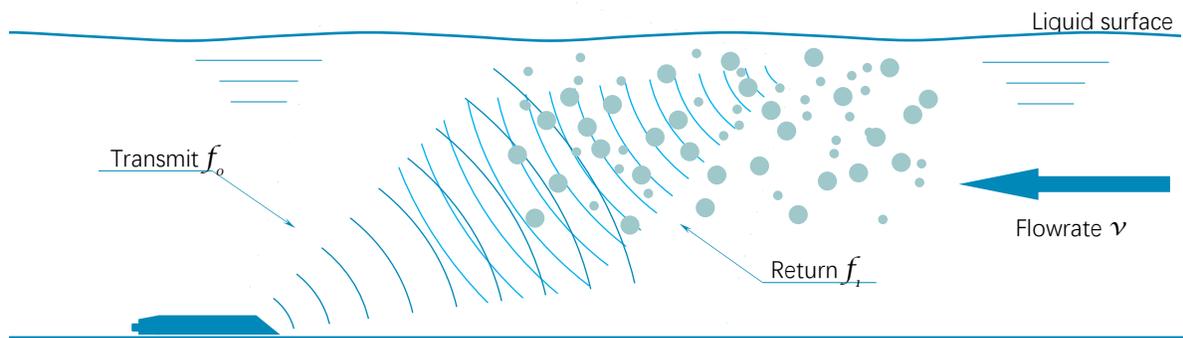


The DV7 submersible velocity sensor is based on the principle of Doppler Effect; it exploits the latest IDSR (Intelligent Doppler Signal Recognition) technology and innovative engineering design.

It outputs velocity value by employing the frequency shift between a transmitting ultrasonic wave and its echo caused by suspended particles or gas bubbles (discontinuities) in motion. The sensing elements are Doppler ultrasound twin 1 MHz piezoelectric crystals. The built-in electronic unit performs velocity calculation and outputs digital signal to a receiver like the Delta-Phase GDC.

The receiver combines with level signal of a known flume cross section to provide corresponding Area/Velocity flow measurement for open channel and non-full pipe application without primary device.

The DV7 measures average velocity directly, no more tedious flow profiling work, and significantly reduces the cost of installation and operation for industrial and municipal wastewater pipeline applications provided that the liquid contains at least 50ppm with suspended solids larger than 30 micrometers.

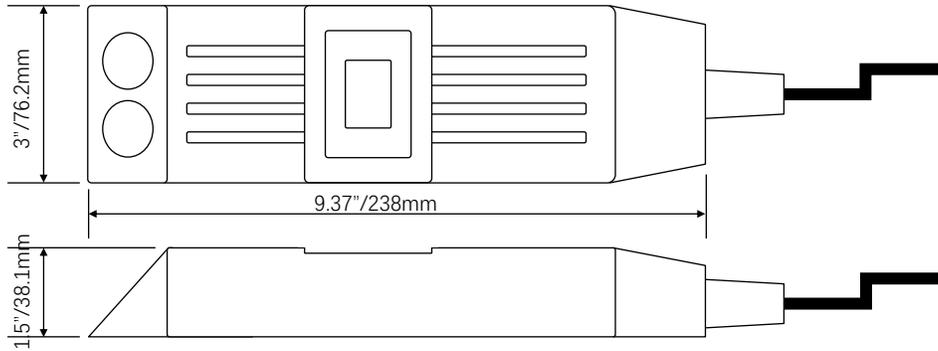


SPECIFICATIONS

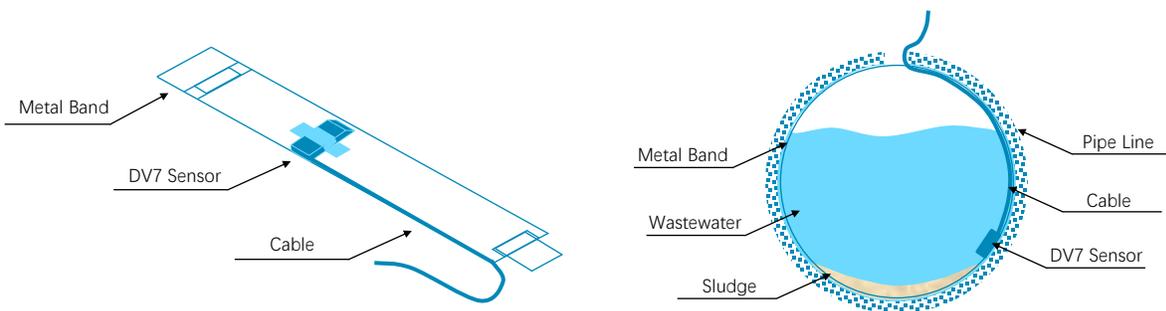
Principle	Doppler ultrasound Twin 1 MHz piezoelectric crystals
Accuracy	±2% of reading at the flowrate ≥ 1 ft/s (0.30m/s)
Repeatable	≤ ±0.8
Flow Range	0.083 to 33 ft/s (0.025 to 10 m/s) liquids.50 parts per million (PPM) of a minimum of 30 micron size suspended solids, turbulence or bubbles to ensure accurate, repeatable flow measurement.
Storage Temp.	-4 ~ 158°F (-20 ~ 70°C)
Operate Temp.	14 ~ 122°F (-20 ~ 50°C)
Power Supply	24 VDC (18 ~ 36 VDC) by GDC, 3W
Interface	RS485 Modbus RTU
Encloser Material	316SS
IP Rate	IP68
Diameter	3" × 9.37" × 1.5" (76.2×238×38.1mm)

Specifications subject to change without notice.

DIMENSION



INSTALLATION



ORDER CODE

DV7 Ultrasonic Doppler Velocity Sensor

- Standard
- P with static pressure
- PF with static pressure and flow calculating

- C10 10" Cable
- C20 20" Cable
- C30 30" Cable

More length please contact manufactory

DV7 - -C30



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