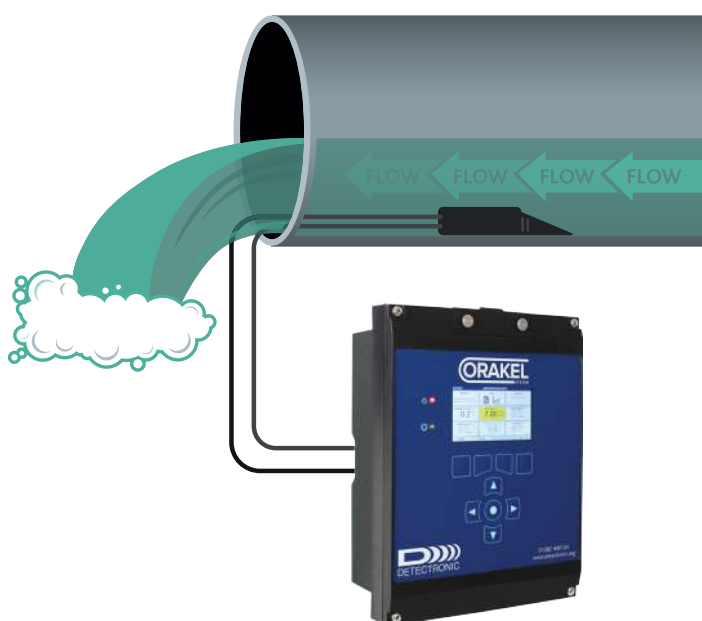


ORAKEL

SYSTEM

SUBMERGED AV FLOW SENSOR

The ORAKEL Submerged Area Velocity (AV) Flow Sensor is a robust, doppler velocity sensor that uses ultrasonic technology to measure wastewater flow with industry-leading accuracy and reliability.



HOW IT WORKS

Installed within the open channel, the sensor simultaneously uses ultrasound waves to measure the velocity of the liquid flow and pressure sensing technology to establish depth. Pre-configured dimensions of the pipe or channel are used to determine the overall volume of flow.

A built-in temperature sensor provides greater accuracy of measurement.

Multiple sensors can be monitored from each ORAKEL control unit.

APPLICATIONS

Designed to measure volumetric flow of raw sewage, industrial effluents and storm waters.

Due to its robust construction, the **ORAKEL Submerged AV Flow Sensor** can be used in open channels, combined sewers and storm sewers pipes.

Rugged design allows for depth and velocity measurements in the most hazardous of circumstances; the velocity profiled sensor reduces the risk of fouling and ragging.

KEY FEATURES

- Market-leading accuracy
- Resists fouling and corrosion
- Cost effective, requiring little maintenance
- Versatile sensor installation - easy to place in the channel
- The **ORAKEL** control unit allows up to 15 additional sensors to be included



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TECHNICAL SPECIFICATION

Velocity Sensor

Dual piezoelectric elements.

Depth Sensor

Hydrostatic pressure.

Integrated Temperature Compensation

Titanium diaphragm isolated silicon sensor.

Physical

Sensor cable 10m as standard, up to 20m if required.

Environmental

Sensor module protection: IP68.

Operating temperature: -20°C to +60°C.

Approvals

CE approved.

Performance - Velocity Sensor

Velocity range: 0.03m/s to 4.00m/s (resolution 1mm/s).

Linearity: $\pm 1\%$.

Velocity Sensor Accuracy: $\pm 2.5\%$ FS ($\pm 1\%$ in calibrated range 0.05m/s - 2.00m/s).

Performance - Depth Sensor

Range: 0.0m to 6.0m (resolution 1.0mm).

Linearity: 0.1% BSL.

Accuracy: $\pm 0.2\%$ FS ($\pm 0.1\%$ in calibrated range 0.03m - 2.00m).

Also available in a 4-20mA loop-powered version with ATEX Ex ia Zone 0 approval.

THE ORAKEL SYSTEM



The **ORAKEL System** is the ultimate fluid measurement product range.

Created as a modular system with a wide range of sensors that can be added to measure various characteristics for a truly bespoke and cost effective solution.

- Two types of high specification control units available
- On-screen graphing
- 9 buttons for easy navigation
- Secure website viewing option available
- 4-20mA and Modbus outputs available
- Multilingual options
- Connects up to 2 sensors as standard; expandable up to 16 sensors

To learn more about the **Detectronic ORAKEL System** and how it can help your business, get in touch:

Call: **+44 (0)1282 449 124**

Email: **sales@detectronic.org**

Visit: **www.detectronic.org**

