

Adventum Tech service: FlowSense

Sensors: FlowSense

Analytics: Liveload.app

Price is subject to project-specific parameters



The offer includes:

1. FlowSense sensor system
2. Wireless monitoring of construction groundwater level changes and environmental impacts
3. Real-time notification system for groundwater level changes
4. Access to Liveload.App system for analytics
5. Adventum Tech technical support
6. On-site delivery and sensor installation
7. Travelling costs
8. Base station and Data plan
9. Monthly Liveload.app subscription fee



FlowSense

Technical Datasheet



OVERDESIGN



CO2

FOOTPRINT
REDUCING



SAFETY
EXCELLENCE

Product Overview

FlowSense by Adventum Tech is a cutting-edge wireless monitoring system designed to track groundwater levels in real-time. By continuously measuring groundwater fluctuations, FlowSense prevents water-related structural risks, ensuring stability in deep excavations and underground structures.

Why Monitor Groundwater Levels?

Groundwater level monitoring is essential for:

- Preventing Structural Failures: Excessive groundwater lowering can cause soil shrinkage, leading to foundation settlement and instability in nearby structures.
- Avoiding Uncontrolled Water Infiltration: Inadequate dewatering results in continuous water ingress, complicating excavation and increasing pumping costs.
- Protecting Neighboring Buildings: Rapid changes in groundwater levels can trigger sinking, cracking, or collapse of adjacent properties.
- Ensuring Construction Efficiency: Maintaining stable groundwater levels optimizes dewatering operations and prevents costly delays.
- Complying with Regulations: Proper monitoring ensures adherence to environmental and geotechnical safety requirements.

Key Features

- Wireless Real-Time Monitoring: Continuously tracks groundwater levels and transmits data via LoRa or 4G LTE.
- Automated Alerts: Immediate notifications when groundwater reaches critical thresholds.
- Integrated Cloud Platform: All data is processed and visualized in LiveLoad.app for instant access and analytics.
- Long Battery Life: Rechargeable Li-ion battery provides extended operational capacity.
- Durable & Weatherproof: Designed to withstand harsh construction environments.
- Seamless Integration: Works alongside other Adventum Tech systems, such as SlabControl, QuakeControl, and GroundControl, for a comprehensive monitoring approach.



Technical Specifications

Parameter Details:

- Measurement Range: 0 – 50 meters groundwater depth
- Precision: ± 1 cm
- Signal Intensity: Customer-specific
- Protocol: LoRa / 4G LTE
- Data Transmission: Wireless (LoRa, LTE)
- Frequency: 868 MHz

Physical Specifications:

- Dimensions: 120 x 110 x 160 mm
- Weight: 900 g
- Battery Type: Li-ion, rechargeable
- Battery Life: 1 year

Available Accessories:

- Extended Battery
- PV Solar Panel
- Additional Data Logging Module

Benefits of FlowSense

Technical Benefits

- Real-time groundwater level monitoring
- Early warning system for water infiltration risks
- Improved excavation safety and efficiency
- Optimized dewatering and pumping strategies

Commercial Benefits

- Reduced risk of foundation failures and legal claims
- Optimized construction timelines and costs
- Competitive advantage in tendering
- Insurance benefits through documented risk mitigation

Environmental Benefits

- Prevents excessive groundwater extraction
- Minimizes impact on surrounding ecosystem
- Ensures compliance with environmental regulations



Software Integration

FlowSense data is seamlessly integrated into **liveload.app**, offering:

- Real-time data visualization and analysis
- Secure, cloud-based storage
- Project-specific dashboards
- Exportable reports for documentation
- Compliance monitoring



Contact Adventum Tech

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