

VloT Node

Versatile Sensor Capabilities

Our sensor nodes are equipped with a diverse range of capabilities, ensuring comprehensive data capture tailored to various industrial requirements.

Customisation is key to meeting bespoke needs.



GPS Positioning

Precise location tracking for mobile assets and distributed infrastructure.



Temperature Readings

Environmental and equipment temperature monitoring for optimal performance.



Industrial Data Reader

Integration with 4-20mA Analog sensors for critical industrial parameters



Motion Detection

Alerts for unexpected motion/gesture/activity detection, ensuring enhanced security and operational safety



Customisable Sensors

Adaptable to incorporate additional sensor types as per specific project demands.



Salient Features of VloT Nodes

- **Over-the-Air (OTA) firmware updates**
- **ChirpStack v4.x server compatibility**
- **Ultra low-power**
- **Battery back**
- **Configurable polling intervals**
- **Data encryption and security**
- **API based integration**
- **Battery health monitoring**

VloT Node

Water Quality Sensor

Multi-Parameter Water Analysis

Water Parameters

- Chlorine: 0-10 ppm
- pH: 0-14 pH
- Turbidity: 0-4000 NTU
- Temperature: 0-50°C

Sensor Specifications

- Chlorine Accuracy: ± 0.1 ppm
- pH Accuracy: ± 0.1 pH
- Turbidity Accuracy: $\pm 2\%$ or 0.5 NTU
- IP Rating: IP68 (waterproof)

Key Features

- Multi-parameter water quality monitoring
- Waterproof IP68 design
- Automatic sensor calibration
- Real-time quality alerts
- Data logging and trending
- Regulatory compliance reporting



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Motion Sensor Device

Accelerometer & Gyroscope.

Sensor Type: 6-axis

Accelerometer

Sensitivity: Configurable
threshold

Key Features

Vibration and movement
detection

Tamper detection alerts

Fall Detection

Activity pattern analysis

Ultra-low power consumption

Configurable wake-on-motion

Real-time alert notifications



Temperature Sensor Device

Precision Environmental Monitoring

Temperature Monitoring

Range: -40°C to +85°C

Accuracy: $\pm 0.5^{\circ}\text{C}$ (typ)

Resolution: 0.1°C

Key Features

High precision temperature
monitoring

Configurable alarm thresholds

Historical data logging

Temperature trend analysis

Cold chain compliance

Real-time alerts

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Industrial 4-20mA Integrator

Analog Sensor

Interface

Analog Interface

Input Range: 4-20mA

current loop

Channels: 2 channels

Resolution: 12-bit ADC

Accuracy: $\pm 0.1\%$ FS

Key Features

Standard 4-20mA industrial interface

RS485 Modbus RTU

support

Multi-sensor integration

Configurable sampling rates

Data preprocessing and scaling

Industrial-grade reliability

