WORKSTERS

Smart RADAR

Use Cases: Manholes / Flows / Overflows / Pipe flow monitoring

Robust. Long-living.
Uncompromised data quality.

Smart Radar

A self-contained device that uses a radar pulse to measure the level of water and other liquids without additional probes.

- **Low maintenance**
  Battery can last up to 10 years. Configured, operated, and updated over the air.
- **Built safe and strong**
  Operation range of -40°C to 85°C, IP69k resistance, safe for potable water environment.
- **Advanced technology**
  Built-in accelerometer, GPS location, NB-IoT (Cat. NB1/NB2), LTE Cat. M1, and GPRS.

DBE CERTIFIED DISADVANTAGED BUSINESS ENTERPRISE

SBA 8(a) Certified

HUBZone CERTIFIED

SBA WOSB Woman Owned Small Business

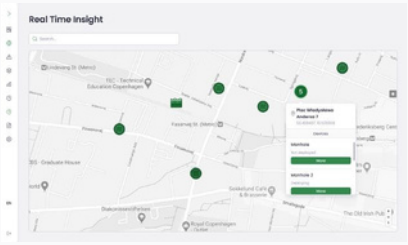
ISO 9001 IAPMO R&T

Smart RADAR

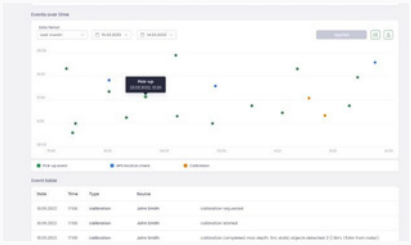
Use Cases: Manholes / Flows / Overflows / Pipe flow monitoring

Smart Alarm features +

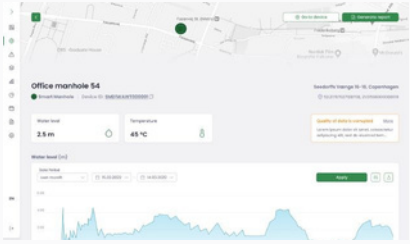
Distributed installations localisation



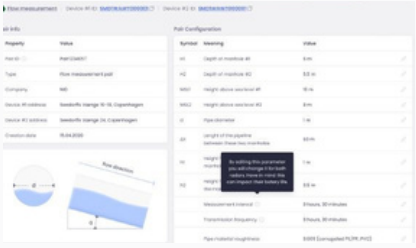
Events and maintenance tracking



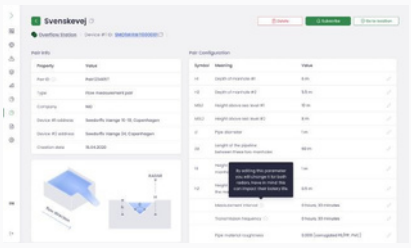
Data management and visualisation



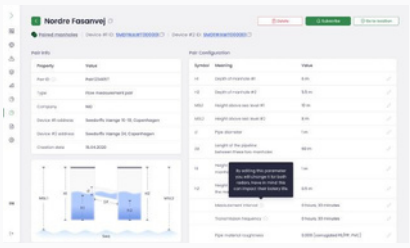
Flow monitoring



Overflow monitoring



Pipe flow monitoring



Key features:
Measurement range: up to 9 metres
Lifecycle: up to 9 years
Sensor resolution: 1mm
Connectivity: LTE-M1, NB-IoT, GPRS
Protection class: IP69K
Material: High-density PE
Certifications: CE Class-B, RED, RoHS

Hardware specification:
High-performance ARM® Cortex®
60 GHz Pulsed Coherent Radar (PCR)
Integrated accelerometer
Integrated ambient temperature sensor
Integrated NFC Chip and coil
Operating range: -30 °C to +60 °C
Built-in storage for 100,000 measurement

Connectivity specification:
• Rel. 14 LTE Cat NB2
• Rel. 14 LTE Cat M1 with CE Mode B
• EDGE, GPRS
• GPS, Cell ID

Hardware specification:
Ultra-low power consumption:
down to 50 µA deep sleep
Includes 40,000 mAh LiMNO2 battery
EMI/ESD protected device

Software specification:
Zephyr® Industry-Standard Real-Time Operating System (RTOS),
Flexible I/O operations,
Firmware Upgrade Over-The-Air (FOTA)
MQTT Transmission protocol
Data Access via Open APIs

The Smart Radar sensor is based on a unique patented technology enabling millimetre accuracy with very low power consumption operating in the 60 GHz unlicensed ISM radio band.
The Smart Radar provides robust performance. The radar auto-calibrates and can be configured differently to optimise sensor performance in varying use cases and environments.
Depending on environmental conditions, obstacles, and other factors, the radar is capable of detecting distance to planar water surfaces up to 10 meters away.

WORKSTERS

Smart ALARM

Use Cases: Septic Tanks / Pumping Stations / Sewage and Water Pools

Smart Hydrant Cap

A 5G replacement for the standard end caps fire hydrants that does much more than keeping water from leaking.

- **Tampering detection**
  Thanks to a built-in accelerometer, it detects unauthorized interaction and sends an alert.
- **Condition monitoring**
  Sensors detect water pressure, temperature, and humidity changes to prevent failures.
- **Long-lasting**
  Rugged high-endurance battery lasts up to 10 years thanks to low-consumption sleep cycles.

Cloud computing and analytics

Thousands of devices. Around-the-clock monitoring. Massive amounts of data. It all requires perfect orchestration of hybrid resources.

- **Orchestra**
  Provides secure, automated networking and hybrid cloud resources interconnectivity.
- **NB-IoT and LTE-M**
  Data processed by the devices is sent to the cloud using the best available Telco networks.
- **Secure authentication**
  Access provided by a single sign on (SSO) solution designed on top of OAuth 2.0.

Online Platform

Total control over the devices in a few clicks. Here you can interact with data insights, reports, get alerts and manage maintenance windows.

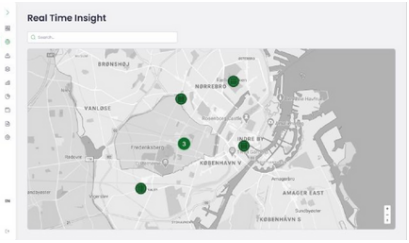
- **Bird's-eye view**
  Check the status of all devices in few glances and get notified about potential issues.
- **Mobile application**
  Workforce can use NFC to interact with devices and log maintenance activities.
- **Broad range of APIs**
  Data can be easily injected into existing IT infrastructure or third-party solutions.

Smart ALARM

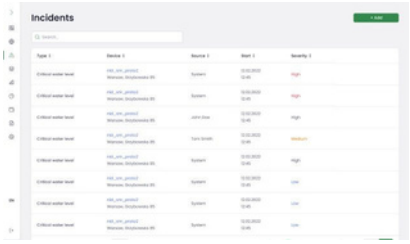
Use Cases: Septic Tanks / Pumping Stations / Sewage and Water Pools

Basic features +

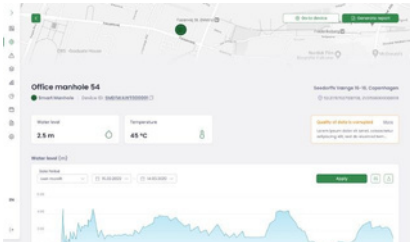
Distributed installations localisation



Incidents management



Data management and visualisation



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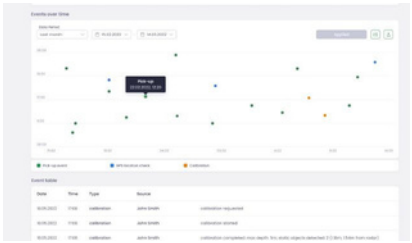
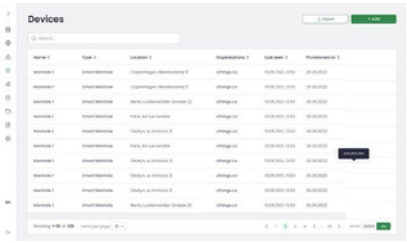
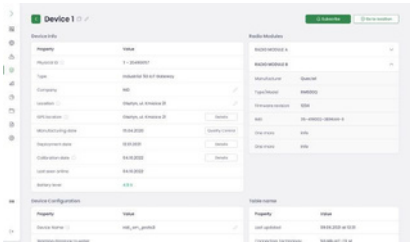


Devices management



Configurations management



Key features:
Measurement range: up to 8 metres
Lifecycle: up to 8 years
Sensor resolution: 1mm
Connectivity: LTE-M1, NB-IoT, GPRS
Protection class: IP69K
Material: High-density PE
Certifications: CE Class-B, RED, RoHS

Hardware specification:
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Operating range: -30 °C to +60 °C
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Low power consumption:
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EMI/ESD protected device

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