

dataTrack™



A scalable energy monitoring solution that grows with you.



Predictive Maintenance
Monitor your data at a granular level and set outlier alarms



Easy to Use
Tailored to your devices. Ready in under 20 minutes



True Wireless Networking
No connection to local network or Wi-Fi required



Modular & Expandable
Connect up to 500 sensors per hub



Battery Powered
915 MHz LoRa-based radio technology for all sensors



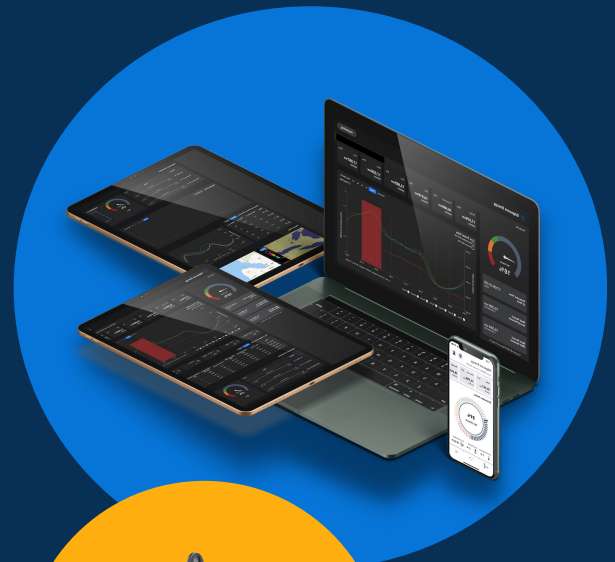
View Anywhere
Data is hosted on the web portal or iOS app

You Can't Control What You Can't Monitor

Using a Long Range (LoRa) radio frequency metering solution, your team will have access to all of your facility's live consumption data and costing from anywhere.

We've reduced the long and complicated installation process down to under 20 minutes. Monitor electricity, water, natural gas, machine vibrations, and more, without having to be there.

All equipment is shipped to you pre-labeled for each machine, and can be installed and set up by your current staff – no special electricians required.



Accurate, Accessible, Actionable

- All your data in one place. Integrated with Edgecom's pTrack, sTrack, and NOC
- See real-time data, down to 30 second granularity
- Daily, weekly, and monthly energy data visualization. From facility to device level
- Access all energy and utility data on one portal, capable of Scope 1 and Scope 2 emissions reporting
- Create baseline and savings report per facility or per device
- Outlier consumption and status alerts for predictive maintenance



Modernized Remote Monitoring

Connect any sensor to our gateway to see all corresponding data in real time hosted on our portal. Our API service allows for cross functionality across multiple platforms including building automation systems.



Sensors and
meters



LTE Gateway



Internet



IoT platform



User View

Technical Features

1. Independent and secure cellular network
2. LoRaWAN radio interface provides long range communication
3. Battery operated with non-volatile memory ensuring data is not lost during power failures
4. Multi purpose application support (e.g. Modbus reader, pulse counter, flood detector)
5. Compatible with the majority of 3rd party platforms, sensors and meters
7. Durable and water resistant gateway (IP68)



dataTrack™ Hub

The **hub** is the central point for your remote monitoring platform. Long Range (LoRa) radio frequency technology receives data for downstream IoT sensors and sends data to the cloud via LTE/4G. See real-time data on the portal.



Sensors and
meters



LTE Gateway



Internet



IoT platform



User View



KEY FEATURES

- True Wireless - Requires no access to WiFi or internal LAN Networks
- LoRaWAN technology to better manage obstacles and distances
- Typical radius up to 1000ft/300m+
- Additional boosters or antennae available for high obstruction areas
- Gathers real-time data for utility mains and downstream sensors
- All data collected are hosted on the cloud portal



Modular & Expandable
Connect up to 500 sensors per hub



Open API
Cross platform functionality,
connect to any legacy device

LoRaWAN has a long reach, low power consumption, and enables secure data transmission.



dataTrack™ Hub Spec Sheet - 1



Cellular Interface

- LTE
Cat M1
375 Kbps (DL), 375 Kbps (UL)
B12, B13, B28 (700 MHz), B20 (800 MHz), B5, B18, B19, B26 (850 MHz), B8 (900 MHz), B4 (1700 MHz), B3 (1800 MHz), B2 (1900 MHz), B1 (2100MHz)
B39 (1900 MHz)
- LTE Fdd
- LTE TDD

Mechanics

- Dimensions (W x H x D) 150 x 37.5 x 83 mm (5.9" x 1.48" x 3.27")
- Mounting DIN rail, wall
- Weight 500g
- Enclosure Rating IP30
- SD Card 1 x Micro SD Card Slot (WISE-6610-XXXXC Only)

Power Requirements

- Power Input 9 ~ 36 VDC
- Power Connector 4-way Molex mini-fit connector
- Power Consumption .82W-9W (9-36VDC/1A)

Environment

- Operating Temperature -40 ~ 75°C
- Storage Temperature -40 ~ 85°C
- Operating Humidity 10 ~ 95% RH

Regulatory Approvals

- EMC EN61000-4-2, Level 3 EN61000-4-3, Level 3 EN61000-4-4, Level 3 EN61000-4-5, Level 3 EN61000-4-6, Level 3 EN61000-4-12, Level 3 EN61000-4-11, voltage dip: 70%
- Shock IEC 60068-2-27
- Freefall IEC 60068-2-32
- Vibration IEC 60068-2-6
- RF FCC/RED/NCC

Accessories

- Power Supply BB-RPS-MO4-M (not included)
- LoRaWAN Antenna 1750008946-01 (included)
- LTE Antenna 1750009236-01 (cellular version included)



dataTrack™ Hub Spec Sheet - 2



WSN Support

- Standard
- Frequency
- ANT Connector

LoRaWAN
868/915/923MHz
RP-SMA Male connector x 1

LAN Interface

- Ethernet
- Connector
- Protection

10/100 Mbps, auto MDI/MDIX
1 x RJ45
1.5-kV built-in magnetic isolation protection

Digital I/O

- Port Type
- Port Connector

1x Digital Input On Voltage: 2.7V to 36VDC
4-way Molex mini-fit connector

General

- LED Indicators
- Reboot Trigger

PWR, DAT, WAN, ETH
Reset button

Software

- Network and Routing
- Configuration
- Network Security
- VPN Tunneling

DHCP server, NAT/PAT, VRRP, dynamic DNS client, DNS proxy, VLAN, QoS, DMVPN, NTP client/server, IGMP, BGP, OSPF, RIP, SMTP, SMTPS, SNMP v1/v2c/v3, backup routers, PPP, PPPoE, SSL, port forwarding, host port routing, Ethernet bridging, network server
SSH, Web Browser
HTTPS, SSH, VPN tunnels, SFTP, DMZ, firewall (IP filtering, MAC address filtering, inbound/outbound port filtering)
Open VPN client and server and P2P, L2TP, PPTP, GRE, EasyVPN, IPSec with IKEv1 and IKEv2

Cellular Interface

- LTE Bit Rate
- LTE Bands
- 3G Bit Rate
- 3G Bands
- No. SIM Slots
- ANT Connector

150 Mbps (DL), 50 Mbps (UL)
B20 (800 MHz), B8 (900 MHz), B3 (1800 MHz), B1 (2100 MHz), B7 (2600 MHz)
42.0 Mbps (DL), 5.76 Mbps (UL)
900, 2100 MHz
2 x Mini SIMs (2FF)
2 x RP-SMA female connectors



dataTrack™ Pulse Counter

The **Pulse Counter** is connected to the KYZ outputs from your gas, water, and electricity utility meters. The data is sent via Long Range (LoRa) radio frequency to the hub. See the data used by the utilities to create your bill, all in real time and on the portal



Meter Your Mains

Monitor water, gas, and electricity in real time



Maintain Your Costs

Get live utility costing without having to wait for the bill

KEY FEATURES

- Battery powered - no power supply required
- Collects information on gas, water, and electricity
- Easy installation, 2 wire output. One to “K” & other to “Y” or “Z” from meter KYZ output
- Strap on LoRa pulse counters available for certain water meter application
- Variance of +/- 1% accuracy



dataTrack™ Pulse Counter Spec Sheet



ELECTRICITY

- Input Power 2x3.6VER14505 AA Size lithium batteries (3.6V2400mah/section)
- Standby Current 25uA
- Receiving Current 11mA @3.3V (max)
- Transmitting Current 127mA/3.3V (Max)
- Battery Measurement Accuracy $\pm 0.1V$
- Pulse Resolution >50mA

FREQUENCY

- Frequency Range 928MHz
- TX Power US915 20dbm
- Receiving Sensitivity -136dBm (LoRa, Spreading Factor=12, Bit Rate=293bps)
- Antenna Type Built In antenna
- Communication Distance Up to 10 km (visible linear obstacle-free transmission distance, actual transmission distance depends on the environment)
- Data Transfer Rate LoRa: 0.3kbps~50kbps
- Modulation LoRa
- Supportable LoRaWAN Band US902-928

PHYSICAL

- Main Body Dimension Host body: L: 129 mm *W: 67 mm *H: 41 mm
- Host Body Weight apx 200g
- Environment -20C~ 70C
- Temperature Range
- Environment Humidity <90%RH (No condensation) Range
- Mounting Screw



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Strap-on Water Sensor

Spec Sheet



Water Sensor

- | | |
|---------------------------|---------------------------------------|
| • Water Resistance | Waterproof & Submersible |
| • Power Requirements | 2xD Cell Batteries |
| • Wireless Connection | 300ft - Automatic / LTE Connection |
| • Compatible Water Meters | 3/4" - 4" |
| • Dimensions | 4.0 x 3.0 x 3.5 in (105 x 81 x 88 mm) |
| • Weight | 500g |
| • Warranty | 1-year limited warranty |



dataTrack™ CT Meter

The **CT Meter** is used to gather electricity current (amperage) measurement from machines with a simple clip-on sensor. The data is sent via Long Range (LoRa) radio frequency to the hub. See the data on your consumption and cost, all live on the portal



Calculated Consumption
Data is translated into kilowatts and cost for your visualization.



Fitting Your Needs
Varying sizes available, tailored to your machines and needs.

KEY FEATURES

- Battery powered - no power supply required
- Easy installation with simple clip-on CTs
- 3 standard sizes are available, with options of a larger split core as required
- 75A (100mA – 75A) 250A (1A – 250A) 630A (10A – 630A)
- Variance of +/- 1% accuracy



dataTrack™ CT Meter Spec Sheet



ELECTRICITY

- Input Power 2x3.6VER14505 AA Size lithium batteries (3.6V2400mah/section)
- Standby Current 25uA
- Receiving Current (max) 11mA @3.3V
- Transmitting Current (Max) 127mA/3.3V
- Battery Measurement Accuracy $\pm 0.1V$
- Current Resolution 1mA
- Current Measurement Range 10A to 630A (depending on the current transformer configuration)

FREQUENCY

- Frequency Range 928MHz
- TX Power US915 20dbm
- Receiving Sensitivity -136dBm (LoRa, Spreading Factor=12, Bit Rate=293bps)
-121dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
- Antenna Type Built In antenna
- Communication Distance Up to 10 km (visible linear obstacle-free transmission distance, actual transmission distance depends on the environment)
- Data Transfer Rate LoRa: 0.3kbps~50kbps. FSK: 1.2kbps~300kbps
- Modulation LoRa/FSK (Note: You can choose one of them)
- Supportable LoRaWAN Band US902-928

PHYSICAL

- Main Body Dimension Host body: L: 112 mm *W: 88.19 mm *H: 32 mm Sensor: H:84.8*L:40.8*W:48mm
- Host Body Weight apx 141g
- Sensor Weight apx 365.4g
- Sensor External Wiring Length apx 900mm
- Environment Temperature Range -20C~ 55C
- Storage Temperature Range -40C~ 85C
- Environmental Humidity Range <90%RH (No condensation)
- Mounting Screw / Magnet



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Vibration Sensor

The **Vibration Sensor** utilizes Long Range (LoRa) radio frequency to monitor vibration and temperature. Simply place on equipment such as pumps, HVAC system, motors, and more. See real-time notifications on the portal.



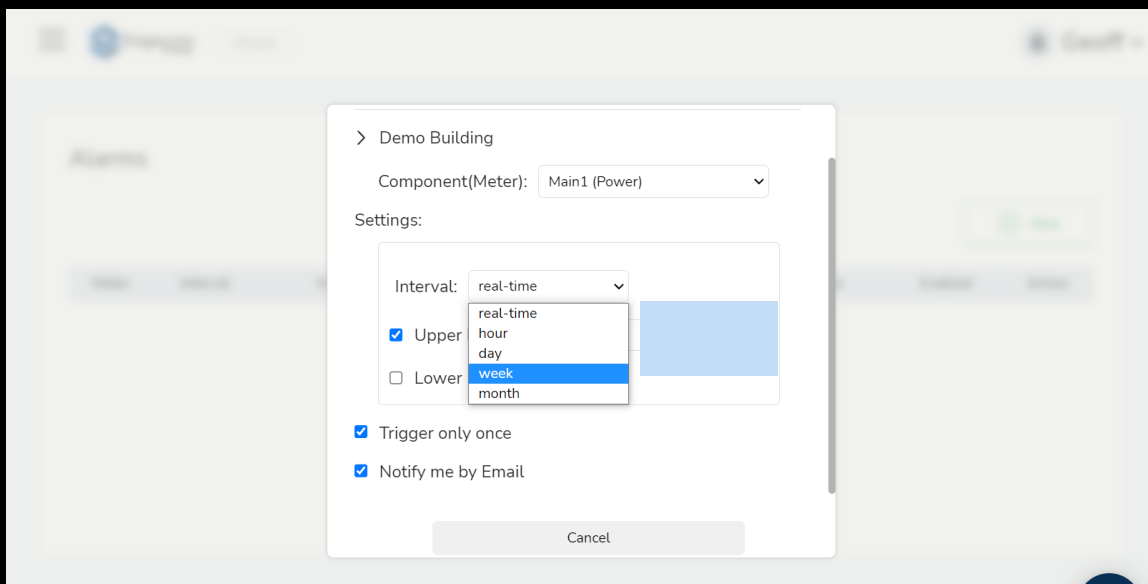
Preventative Maintenance
Customized threshold alarms for machine health monitoring



Customized Alerts
Set alarms based on live outliers or daily and weekly averages

KEY FEATURES

- Battery powered - no power supply required
- 3-axis accelerometer and temperature sensor
- Temperature sensor measurement range between -20°C ~ 120°C
- Sensitivity -148dB
- Stud mount or Magnet base
- Under 5% variance



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Vibration Sensor

Spec Sheet p1



Wireless Communication

- Frequency Band EU 863-870 (MHz) / US 902-928 (MHz)
- Spreading Factor 7~12
- Transmit Power Up to 20dBm
- Topology Star (LoRa/LoRaWAN)
- Sensitivity -148dB
- Data Rate 50 kbps at FSK mode EU | 21.9 kbps at SF7 mode US/TW | 5.47 kbps at SF7 mode for JP

General

- Power Input 3.6V AA Battery *2pcs (Not included)
- Battery Life 2 years (once per hour data update interval time)
- LED Indicator Power, Tx
- Configuration Interface Micro-B USB
- IP Class IP66
- Mounting Stud mount, Mounting pad and Adhesives
- Dimensions (HxD) 84.7 x 48.3 mm
- Certification CE (RED), FCC, NCC, TELEC, VCCI, BSMI, RCM, ANATEL

Environment

- Operating Temperature -20°C ~ 80°C (Battery powered)
- Operating Humidity 10% ~ 95% RH
- Storage Temperature -25°C ~ 90°C
- Storage Humidity 5% ~ 95% RH

Temperature Sensor

- Measurement Range -20°C ~ 120°C
- Accuracy -2°C with 85°C
- (TA = 27°C, Directly contact with heat source. Metal Base of WISE-2410) -5°C with 120°C



dataTrack™ Vibration Sensor Spec Sheet p2



3-Axis Accelerometer Sensor

• Axis	X-Y-Z
• Frequency Range	10~1000Hz
• Amplitude Range	±16g
• Statistical Time-Domain	Velocity RMS, Acceleration (RMS & peak), Displacement, Kurtosis, Crest factor, Skewness, Standard deviation
• Output Data Rate	6600Hz
• Resolution	10 bit (all g range)
• Accuracy	Under 5%
• Noise	±40mg
• Nonlinearity	±0.5 %
• Cross-Axis Sensitivity	±1 %
• Sensitivity Change Due to Temperature	±0.02 %/°C

Smart Condition Monitoring Sensor

• WISE-2410-NB	Wireless Smart Condition Monitoring Sensor - US 902-928 (MHz)
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Accessories List

• 1760002647-01	Bat.Cylindrical 3.6V/2500mAh AA Li/SOCI2
• 25F7000004N000	Magnet base D30XH9mm for installation
• WISE-2410-MTB01	Metal base for installation

Unit: mm

