FDX SenIQ US

SENSOR INTELLIGENCE solution

FDX SenIQ-US is an autonomous data logger designed for continuous remote monitoring in tanks, rivers, channels, underground chambers, and hydraulic networks.

THE PRODUCT

ABOUT

FDX-SenIQ-US is an autonomous data logger that integrates:

- High-precision ultrasonic level sensor
- Long-lasting battery
- Integrated IoT telemetry

Designed for continuous remote monitoring in tanks, rivers, channels, underground chambers, and hydraulic networks, it guarantees reliable operation even in demanding environmental conditions and at sites without electrical power or traditional connectivity.

Operating Principle

Level measurement is performed using a high-performance ultrasonic sensor: the device emits a sound pulse and measures the time it takes to return after reflecting off the liquid surface.

The level is calculated based on the return time, obtaining an accurate, non-contact reading of the fluid.

Configurable Independent Schedules:

- **Measurement Schedule:** records measurements at user-defined intervals.
- **Transmission Schedule:** sends the data to the server at user-programmed times.

Between measurements and transmissions, the equipment operates in ultra-low power consumption mode, maximizing autonomy and allowing years of maintenance-free operation.

KEY BENEFITS

ECO

Superior autonomy of over a year with internal batteries, without requiring external power, thanks to an ultra-low power design optimized for continuous field operation.

CLOUD

Cloud connectivity via 3G, LTE-CAT-M1, NB-IoT, utilizing a global multi-operator SIM to ensure maximum coverage, availability, and reliable data transmission.

HIGH PERFORMANCE

Built for extreme use with IP68 protection, resistant to prolonged immersion, dust, humidity, corrosive gases, and atmospheres with the presence of acids for safe operation in severe environments.

Typical Applications

- Level Monitoring in Elevated Tanks and Cisterns
- Level Control in Storm Drains and Channels
- Level Measurement in Rivers, Streams, and Water Bodies
- Water Resource Management in Rural and Urban Systems
- Drinking Water and Sanitation Networks
- Monitoring of Underground Chambers and Pumping Stations

Cloud & Analíitycs

Real-time data and smart analysis with **FDX-Cloud** for faster, more accurate decisions.

Familia de productos

FDX SenIQ RD

RADAR

FDX SenIQ PR

PRESSURE

FDX SenIQ CR

CURRENT

Technical Specifications

MEASUREMENT TECHNOLOGY	Ultrasonic
RANGE	0.5-10 meters
ERROR	+/- 2mm
COMMUNICATION	Local and Global Cellular Network
BANDS	3G/NB-IOT/CAT-M1
PROTOCOL	MQTT, MQTTS
INTERNAL BATTERIES	Internal Lithium Thionyl Chloride Batteries ($Li\text{-}SOCl_2$)
CONFIGURATION	Local Bluetooth / FDX CLOUD
PROTECTION RATING	IP68
MOUNTING	Wall bracket / eyelet for hanging
MINIMUM/MAXIMUM MEASUREMENT INTERVAL	1 minute / 24 hours
MINIMUM/MAXIMUM TRANSMISSION INTERVAL	1 minute / 24 hours
UPDATE FIRMWARE	Bluetooth
THREE-AXIS ACCELEROMETER	Yes — Tilt Detection
INTERNAL TEMPERATURE AND HUMIDITY SENSOR	YES
INTERNAL PRESSURE SENSOR	YES

FACTORY SUPPORT.
ASSISTANCE AND ADVICE ON INSTALLATION

CUSTOMIZABLE QUOTES
TAILORED TO YOUR INDUSTRY

www.fdx-ingenieria.com