FDX SenIQ PR

SENSOR INTELLIGENCE solution

FDX SenIQ-PR is an autonomous data logger designed for continuous, efficient, and reliable remote monitoring, even in severe environmental conditions.

THE PRODUCT

ABOUT

FDX-SenIQ-PR is an autonomous data logger for hydraulic applications that integrates:

- Up to two piezoresistive pressure sensors
- Two pulse inputs for flow meters or counters
- Long-lasting battery
- Integrated IoT telemetry

Designed for continuous, efficient, and reliable remote monitoring, even in severe environmental conditions and locations without conventional power or 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

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

- Pressure Monitoring in Drinking Water Networks
- Leak Detection and Transient Events (Water Hammer)
- Flow and Consumption Telemetry
- Supervision of Pumping and Distribution Systems
- Pressure Control in Pressure Reducing Valves

Cloud & AnalITYCS

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

Product Family

FDX SenIQ RD

RADAR

FDX SenIQ US

ULTRASONIC

FDX SenIQ CR

CURRENT

Technical Specifications

DIAMETER	HEIGHT	WEIGHT
140mm	160mm	0,5Kg

MEASUREMENT TECHNOLOGY	Piezoresistive
RANGE	0 – 10 bar (other ranges available)
ERROR	±0,5 % FS @ 25 °C
PULSE COUNTER	2 Up to 30 Hz (ultra-low power consumption mode) or 2 Up to 1kHz (low power consumption mode)
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	Lcoal Bluetooth / Remote FDX Cloud
PROTECTION RATING	IP68
MOUNTING	Wall bracket / eyelet for hanging
MINIMUM/MAXIMUM MEASUREMENT INTERVAL	1 min – 24 h (sampling every 10 s, calculation of max., min., and average)
MINIMUM/MAXIMUM TRANSMISSION INTERVAL	1 minute / 24 hours
UPDATE FIRMWARE	Bluetooth
THREE-AXIS ACCELEROMETER	Yes
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