

ADR-Pressure

ADR-PRESSURE is an application ready Sigfox device that measures and transmits pressure data.

ADR-PRESSURE provides the connection to the global Sigfox IoT Network for reliable and secure communications.

The configuration of the device can be done via the network allowing the choice of transmission rate and operation mode. Specifically designed for the IoT world, depending on operating conditions and mode it can last up to 3 years without having to change the battery.



Operational Overview

The ADR-PRESSURE unit can be selected to work in various modes. Each mode will impact on battery life and which Sigfox data contract would be required.

Mode's of Operation (set via network)

Mode 1: Sample every X minutes/seconds, transmit every Y minutes selectable and within Sigfox contract – min, max, average period.

Mode 2: Set the lower and upper alarm limits sample every X minutes/seconds, transmit every Y minutes selectable and within Sigfox contract – min, max, average unless either high or low limits are breached for more than Z samples in which case send a sample immediately and start transmitting every A minutes until pressure within limits (stable) for more than B samples.

Highlights

- Pressure ranges : 0-10 bar or 0-20 bar (with 2 times over pressure absorption)
- Data through Sigfox compliant radio networks
- Long range connectivity
- Low power design with up to 3+ years autonomy (typically measured by no of transmissions, battery life = approximately 50 000 transmissions, depending on operating temperature)

Performances

- **RF Power:** 14dBm (25mW)
- **RF Sensitivity:** up to -127dBm
- **Interfaces:** Pressure transducer directly

Warnings

- Battery end of life
- Over temperature
- Tamper detect

Firmware

Sigfox network protocol

Transmission cycles: 2, 50, 100 or 140 uplinks per day

Downlink dependant on Sigfox contract

Data encryption: AES128 (Optional)

Software and Data Management

Data from the device can be provided or easily integrated into your own platform. It is possible to use the Adroit IoT platform as a gateway for already existing SCADA installations. Payload provided on request.

Peripheral Options

- Tamper detection possible
- GPS (Sigfox Network Resolution possible)

General Information

Sensor body stainless steel

Sensor options: 0-10 bar or 0-20 bar

Operating temperature: -20 °C / +65 °C

Sensor mounting thread 1/2" BSP

Cable length – 2m standard

Transmitter mounting options: screws, rivets, tie-wraps and 2-sided tape

Dimensions: 110 x 58 x 30 mm

Weight: 100grams

Housing: IP67

Antenna: All integrated (Internal)

Standards: EN 300-220, EN 301489, EN 60950, ICASA; CE

Standard Operation (can be modified on request)

Default Mode:

- Standard unit is programmed to sample every 1 minute and send two readings (30 min resolution - min,max and avg values) every 1 hour
- We can modify the resolution time and the transmission time will be resolution time * 2.

Device Lifespan:

- Battery life depending on operating conditions and mode, can last up to 3 years.