

ADR-Thermo

Air Quality Sensor

ADR-Thermo is an application ready Sigfox enabled transceiver allowing to transmit and manage Air Quality sensor data.

ADR-Thermo provides a connection to a national and global network infrastructure for reliable and secure communications.

The configuration of the transceiver can be done via the product or network allowing the choice of periodicity, alerting, and data encryption.

ADR-Thermo further supports a downlink function to the device for switching functionality. Powered through a Li-SOCL2 battery, it allows standard autonomy up to 10 years.



Highlights

- Temperature, Humidity & CO2 data through Sigfox compliant radio networks
- Perfect for Smart Building applications
- Accurate Readings via quality probes
- Long range connectivity
- Low Cost Low power design with up to 10+ year autonomy

Performances

- SF RF power: 14dBm (25mW)
- SF RF sensitivity: up to -127dBm

Warnings

- Battery end of life
- Over temperature
- Tamper detect (Optional)

Firmware

SIGFOX network protocol

Transmission cycles: 2, 50, 100 or 140 update links per day

Data encryption: AES128 (Optional)

Software and Data Management

Data from the device, transmitted via the Sigfox cloud infrastructure to the backend server platform with built in device support can be provided or easily integrate the device into your own platform.

Peripheral Options

- Digital and Analog IO
- Bluetooth (BLE)
- GPS
- Accelerometer

Typical Applications

- Cold Chain Management
- Smart City and Buildings
- Smart Agriculture

General Information

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

Mounting Options: Screws, rivets, tie-wraps and 2-sided tape

Dimensions: 110 x 58 x 30 mm

Weight: 100 grams

Housing: IP67

Antennas: All Integrated (Internal)

Standards: ICASA, EN 300-220, EN 301-489, EN 60950; CE

Standard Operation (can be modified on request)

CO2 Mode:

- Default unit is programmed to sample every 10 minutes and send Temperature, Humidity and CO2 (min, max and avg readings) every 60 minutes
- We can modify the transmission time but not the sample time.

Temperature Probe Mode:

- Default unit is programmed to send 4 temperature readings every 1 hour with 15 min temperature samples
- We can modify the sample time and the transmission time will be sample time * 4.

Humidity Mode:

- Default unit is programmed to sample every 1 minute and send Temperature and Humidity (min, max and avg readings) every 30 minutes
- We can modify the transmission time but not the sample time.

Device Lifespan:

10 years battery life depending which mode is used.