



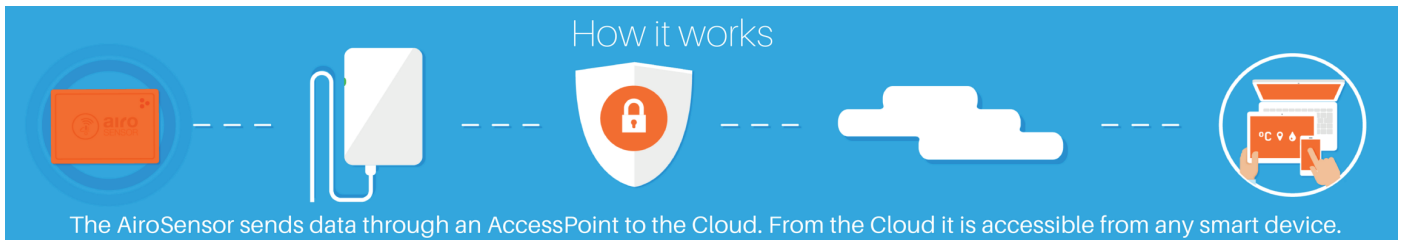
# SenseAnywhere Data Loggers

# AiroSensor by SenseAnywhere: A cloud based, wireless temperature monitoring system.

The AiroSensor leads a new generation of ultra-low power, wireless temperature data loggers. Providing accurate temperature and humidity monitoring information and offering automatic, transfer to the cloud, temperature monitoring has never been easier! The easy to use, robust, wireless loggers are set up in under 10 minutes, offer a 10-year battery life and do not require 'backing up'. Alarm settings can be easily set to suit individual requirements and provide instant warnings via Email or SMS. Reporting and quality compliance is a breeze using the intuitive, free software and report templates.



## How it works



The AiroSensor sends data through an AccessPoint to the Cloud. From the Cloud it is accessible from any smart device.



### Temperature / Humidity

The AiroSensor features an accurate temperature and optional humidity sensor. Continuous logging and automatic wireless transfer of measurements means reporting and quality compliance has never been easier. No manual intervention is needed. Now your report requires data from just one source instead of data from all refrigerators used in the distribution chain. If things are temporarily stored outside of the required conditions, you will know when it happened and for how long, helping you to judge if the shipment is still within acceptable limits. Alerts can be configured to allow you to receive a SMS or email as soon as the Sensor goes out of specification.



### Accelerometer

The AiroSensor also has an accelerometer. The Accelerometer is used to detect movement. The sensitivity of the motion detection is remotely programmable and will allow tuning motion detection for the asset it is connected to. Besides motion position (tilt) or shock can be detected. All these events are instantly transferred when the data logger is in range of an AccessPoint. The accelerometer can be used to track running hours, use at odd times and unauthorised use. It functions as theft protection of valuables that should not move e.g. in a museum or public building. The temperature and humidity sensors will also track the environmental conditions of your valuables.



### AccessPoints

When the loggers are out of range of an AccessPoint, e.g. when they are attached to goods that are in transit, temperature and humidity data is stored in the device's non-volatile memory. As soon as the data loggers come in range of an AccessPoint they automatically start off-loading their data. Arrival and departure times are also stored. All information is at hand without opening the package. The AiroSensor can store up to 15,000 temperature and humidity measurements, at five minute intervals which means that the logger can be out of range of an AccessPoint for more than 50 days.



### Cloud

Reliably collecting real-time data from many locations globally can be a challenging task. We use state of the art Cloud computing with Microsoft's Azure infrastructure, a database with SLA of 99.9% which is backed-up every 5 minutes, to fulfil this task. The real-time redundant database can offer the scalability, reliability, security and redundancy that is needed for these kind of applications. Through secure API's the data can then be shared and forwarded instantly to a WMS, TMS or ERP system. We work with system integrators to help customers implementing our data loggers in their applications.



### Security

The wireless communication between the AiroSensor and the network is a 2-way communication. The data logger will automatically discover the AccessPoints at a given location. The AiroSensor transmits its data to a central database waiting for a confirmation of good reception. The protocol features re-transmission attempts and duplicate packet filtering so no event gets lost. This reliable Wireless Short Packet protocol together with the accelerometer can take up the task to use the AiroSensor as a reliable motion detector to protect valuable assets in and outside.

# AiroSensor Accessories:

## AccessPoints

The AccessPoint a plug and play device that connects SenseAnywhere's wireless Sensors to the Cloud service. We have a mobile AccessPoint with a cellular modem, perfectly suited for transport and remote locations. As well as a GPS receiver module which enables you to locate your loggers real-time. And a dust- and weatherproof AccessPoint making it very suitable for outdoor use.

## Pt100 Interface

This smart probe interface featuring a digital SenseAnywhere Bus interface has been especially designed to connect an existing 4-wire Pt100 Probe to the SenseAnywhere Monitoring System.

## SAB Temperature PT100 Probe

Smart probe featuring a digital SenseAnywhere Bus interface has been especially designed to be used in ultra-low temperature environments down to -200°C. There is also a hermetically sealed probe for measuring extreme temperatures in liquid substances which has a high level of chemical resistance.

## SAB Extension Cable

Allows External Modules to take measurements at a greater distance from the AiroSensor 20-20-43.

## Temp Only Module

A small connector with enormous potential. The module can accurately monitor temperatures from -40°C to +70°C.

## Temp+RH Module

Measures between 0-99%RH (non-condensing) and can monitor temperatures from -40°C to +70°C.

## 4-20mA Input Module

A smart piece of technology that enables digital measurements for all analogue products with a 4-20mA output, an industry standard.

## 0-10V Input Module

Enables digital measurements for all analogue products with a 0-10V output, an industry standard.

## AssetTag

A tag that monitors your asset, swap loggers at any time with ease and maintain your data for the location being monitored.

## SwitchHolder

The SenseAnywhere SwitchHolder is an accessory which enables you to disable the programmed alarm function of your AiroSensor with a single sliding movement.



# SenseAnywhere AiroSensor available models:

	Temperature	Temperature Extended Range	Temperature with External Probe	External Probe	Temperature Only Module	Temp & Humidity Module
Model	20-20-30	20-20-31	20-20-43	PT-100	01-01-30	01-01-20
Temperature Range	-40°C to +70°C	-40°C to +70°C	Internal: -40°C to +70°C External: -200°C to +200°C	-200°C to +200°C	-40°C to +70°C	-40°C to +70°C
Temperature Accuracy	±0.15°C (-40°C to 0°C) ±0.10°C (0°C to 70°C)	±0.15°C (-40°C to 0°C) ±0.10°C (0°C to 70°C)	±0.10°C (0°C to 70°C) ±0.15°C (-40°C to 0°C)	Class A (0.15K + 0.002 x It)	±0.10°C (0°C to 70°C) ±0.15°C (-40°C to 0°C)	±0.10°C (0°C to 70°C) ±0.15°C (-40°C to 0°C)
Relative Humidity Range	N/A	N/A	N/A	N/A	N/A	0 - 99% RH (non condensing)
Humidity Accuracy	N/A	N/A	N/A	N/A	N/A	Typ. ±2% RH Max. ±3% RH (0-80% RH) Max. ±4.5% RH (80-100% RH)
Wireless Range	Up to 100m / 300ft outdoors	Up to 600m / 2000ft outdoors	Up to 600m / 2000ft outdoors	N/A	N/A	N/A
Battery Life	Up to 10 years with 5 min. interval = 1 million events	Up to 10 years with 5 min. interval = 1 million events	Up to 10 years with 5 min. interval = 1 million events	N/A	N/A	N/A
Memory	18,500 events internally (64 days @ 5 min.)	18,500 events internally (64 days @ 5 min.)	18,500 events internally (64 days @ 5 min.)	N/A	N/A	N/A
Size	41 x 33 x 24mm	131 x 33 x 24mm	143 x 35 x 25mm	N/A	N/A	N/A
Protection Class	IP 67 (waterproof)	IP 67 (waterproof)	IP 62	N/A	IP 62	IP 62



Customers we are proud to have worked with:



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