



# **SenseAnywhere Data Loggers**



## 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.

## How it works



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

### Easy to install

- Register + connect = ready!
- Under 10 minutes
- No cables or software

### Easy to use

- Cloud based
- All industries
- Accessible from any smart device

### Easy to maintain

- No back-ups
- No maintenance
- Lifetime battery (10 years)

# AiroSensor: Wireless Temperature Monitoring

## The SenseAnywhere AiroSensor, a cloud based, wireless temperature monitoring system:

The SenseAnywhere AiroSensor leads a new generation of ultra low power, wireless temperature data loggers. Providing accurate temperature and humidity monitoring information and offering automatic, wireless transfer to the cloud. Wireless temperature measuring has never been easier!



SenseAnywhere AiroSensors provide a reliable, secure and automatic wireless temperature monitoring system. 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. Use SenseAnywhere to help deliver quality assurance, cold chain, GDP and HACCP requirements!

The updated ISO Standard 15189 (quality process requirements for medical laboratories), means that monitoring your samples in transport has become even more crucial. The perfect tool to validate the compliance of your samples is the AiroSensor and SwitchHolder. SenseAnywhere's AiroSensor makes meeting this new standard simple and convenient through monitoring throughout transport. With the optional SwitchHolder you can enable or disable the programmed alarm function with one single sliding movement. This accessory is ideal for environments with cooling systems that are not operational during specific times.

A cost effective price point means that the SenseAnywhere AiroSensor is suited to many applications-click on our pop-ups below for more information or contact us to discuss your requirement with an engineer.



## The New AiroSensor 20-20-43 Temperature Logger with External Probe:

The Sense Anywhere AiroSensor X ER model 20-20-43 is like the popular AiroSensor T ER model 20-20-31 with additional IP67 class connector featuring the digital SenseAnywhere Bus (SAB). This is a hot pluggable interface which provides power and data communication to external sensors. With this system, the external sensors can be tested and calibrated as an individual device, providing a huge benefit over analogue interfaces where the sensor and measuring device always need to be calibrated as a pair.

### Available models:

	Temperature	Temperature Extended Range	Temp & Humidity	Temp & Humidity Extended Range	Temp with External Probe	External Probe
Model	20-20-30	20-20-31	20-20-24	20-20-25	20-20-43	PT-100
Temperature Range	-40°C to +70°C	-40°C to +70°C	-30°C to +70°C	-30°C to +70°C	Internal: -40°C to +70°C External: -200°C to +200°C	-200°C to +200°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)	±0.5°C (-30°C to -10°C) ±0.3°C (-10°C to 70°C)	±0.5°C (-30°C to -10°C) ±0.3°C (-10°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 t!)
Relative Humidity Range	N/A	N/A	0 - 100% RH (non condensing)	0 - 100% RH (non condensing)	N/A	
Humidity Accuracy	N/A	N/A	Typ. ±2% RH (0-80% RH)	Typ. ±2% RH (0-80% RH)	N/A	N/A
Wireless Range Outdoor	100m	600m	100m	600m	600m	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	Up to 10 years with 5 min. interval = 1 million events	Up to 10 years with 5 min. interval = 1 million events	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.)	18,500 events internally (64 days @ 5 min.)	18,500 events internally (64 days @ 5 min.)	N/A
Size	41 x 33 x 24mm	131 x 33 x 24mm	41 x 33 x 24mm	131 x 33 x 24mm	143 x 35 x 25mm	N/A
Protection Class	IP 67 (waterproof)	IP 67 (waterproof)	IP 62	IP 62	IP 67	N/A



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Data Loggers, Thermocouples & Calibration