Tether ThermalQ

Battery or mains powered, Sigfox connected indoor temperature and humidity sensor

The Tether ThermalQ is an indoor temperature and humidity sensor that interfaces with the Tether software ecosystem to report on the quality of living, working and learning environments.

It can be powered by 6 x AA batteries and has a terminal block that can receive power from any 5V 0.5A DC supply. The ThermalQ can be mounted to a wall or a ceiling and connects to the Tether software platform via an independent Sigfox connection.

https://Tether.co.nz

Device Features

- Measure Temperature
- Measure Humidity
- Measure Dew Point
- 5 Years Battery Life

Tether ThermalQ Technical Specifications

Mechanical Specifications

Compact and Sleek design	The ThermalQ is made of a strong and sleek ABS/Polycarbonate plastic. The device is low profile and utilises a mounting bracket for ease of installation.
Dimensions	127mm x 127mm x 40mm
Weight	+- 171g (without batteries) +- 307g (with batteries)

Power Specifications

6 x AA Batteries	The ThermalQ uses 6 x AA size 1.5V batteries
Battery Life	> 5 Years
Mains Powered	The ThermalQ contains a terminal block that can receive power from any 5V 0.5A DC Power Supply

Sensor Specifications

Sensor	Units	Range	Accuracy
Temperature	°C	–40°C to 85°C	± 0.2°C
Relative Humidity	%	0-100%	± 2%

ThermalQ Physical Installation

The Tether device has a wall mounting plate that the device securely slides down on to. The ideal mounting location is on an interior wall (above ground level) between 1.2m and 1.6m above the floor with the Tether logo positioned at the bottom right corner. The Tether ThermalQ can be easily removed from its wall mount by sliding the device up where the user will then have access to the battery compartment and a reset button.

ThermalQ Operation

Once powered the ThermalQ will work continuously and the battery level will be available on the Tether software portal to indicate to the user when a battery change is necessary. After the start up sequence, no lights should appear in normal operation.

Connectivity Specifications

Sigfox Communication	The ThermalQ uses a high power radio transmitter/receiver that operates on the Sigfox network, and is available in any RCZ4 Regions
Sigfox Regions	RCZ4 – Australia, New Zealand, South America, Hong Kong, South East Asia

Reading Intervals

When the Tether ThermalQ is powered by either mains power or batteries. The following reading intervals have been carefully chosen to maximize battery life while still maintaining valuable and usable data. Reading intervals are configurable down to near real-time when plugged into mains power.

Metric	Interval
Temperature	Reading every 10 min - the average of 3 readings is sent to the Tether cloud ever 30min
Relative Humidity	Reading every 10 min - the average of 3 readings is sent to the Tether cloud ever 30min
Dew Point	Dew Point is calculated with each Temperature and Humidity reading and reported on every 30min