Tether EnviroQ

Battery or mains powered, Sigfox connected Indoor environmental quality sensor

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The Tether EnviroQ is an indoor environmental quality 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 AA batteries and has a terminal block that can receive power from any 5V 0.5A DC supply. The EnviroQ 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 Carbon Dioxide | Measure Dew Point | Measure Noise Levels | Measure Light | Measure Pressure | 3 Years Battery Life |

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Mechanical Specifications

Compact and Sleek design	The EnviroQ 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 EnviroQ uses 6 x AA size 1.5V batteries
Battery Life	> 3 Years
Mains Powered	The EnviroQ contains a terminal block that can receive power from any 5V 0.5A DC Power Supply

Connectivity Specifications

Sigfox Communication	The EnviroQ 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

Sensor Specifications

Sensor	Units	Range	Accuracy
Temperature	°C	-20°C to 54°C	± 0.2°C
Relative Humidity	%	0-100%	± 2%
Carbon Dioxide	ppm	300 to 5000ppm	± 50ppm
Noise Levels	dBa	30dB to 100dB	
Light:	lux	0.01 to 83000 lux	± 0.2%
Pressure:	hPa	300 to 1100 hPa	± 0.6hPa

EnviroQ 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 EnviroQ 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.

EnviroQ Operation

Once powered the EnviroQ 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.

Reading Intervals

When the Tether EnviroQ 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
Carbon Dioxide	Reading every 10 min - the reading is sent to the Tether cloud ever 30min
Noise Levels	Reading every 10 min - the average of 3 readings is sent to the Tether cloud ever 30min
Light:	Reading every 10 min - the average of 3 readings is sent to the Tether cloud ever 30min
Atmospheric Pressure:	Reading every 10 min - the average of 3 readings is sent to the Tether cloud ever 30min

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