EH1-WAN
A CLIMATE METER INTEGRATED INTO THE INTERNET

Wiiste IoT

EH1-WAN by Wiiste is a Finnish new-generation climate meter that measures indoor humidity and temperature. EH1-WAN, which is developed for construction site conditions, independently sends the measurement data to the internet, enabling the real-time remote monitoring of on-site conditions. EH1-WAN can be used on construction sites as a frost guard that alerts when the temperature drops too low. EH1-WAN also functions during power failures.

The features of EH1-WAN include automatic alerts for temperature, relative humidity, and battery charge level. With EH1-WAN, the conditions in the building can be automatically monitored for the duration of the battery life (up to 10 years). After that, the data can be read with a handheld reader and transferred further to the Relia cloud service.

Accurate W-Tip sensor
EH1-WAN features a new type of W-Tip sensor structure that guarantees highly accurate and fast results.

Reading the results on a browser
The EH1-WAN climate meter sends the humidity and temperature data to the Relia cloud service in real time. The other features of the browser-based Realia service, which can be scaled for various data terminals, include data archiving, reporting, and sharing, as well as the design of measurements on layouts.

Calibration
The climate meter is to be calibrated annually, and its power supply can be replaced in connection with the calibration, if necessary.

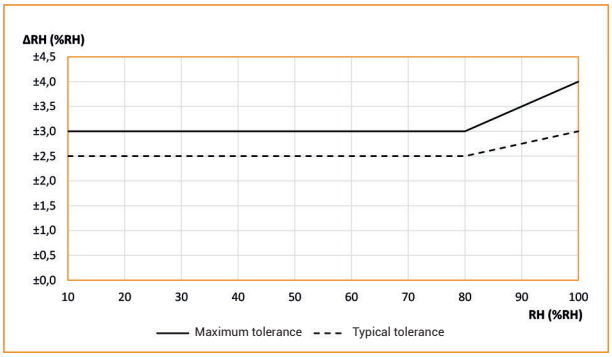
EH1-WAN – FEATURES

- Also functions during power failures and in
- sub-zero temperatures
- Wireless remote reading (LoRaWAN)
- Wireless on-site reading (SolidRH RD1)
- Battery life up to 10 years

TECHNICAL SPECIFICATION

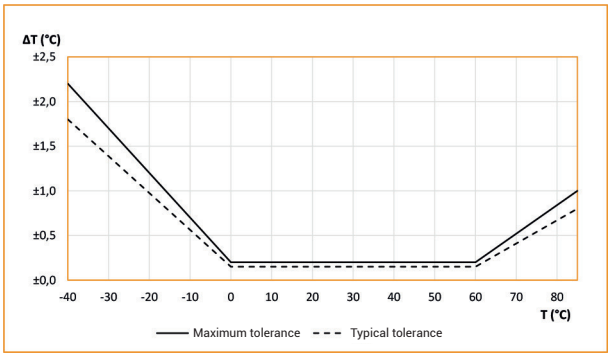
Humidity measurement

Measurement range	10–100%RH
Measuring accuracy	(see Figure 1) ±2.5%RH (10– 80%RH)
Repeatability	±0.2%RH
Hysteresis	< ±1%RH
Resolution	0.1%RH
Linearity error	< ±1%RH
Response time (T10-90%)	< 20 s
Transfer accuracy	< 0.5%RH/a
Sensor type	Capacitive polymer



Temperature measurement

Measurement range	–40…+85°C
Measuring accuracy	(see Figure 2) ±0.2°C (0– 60°C)
Repeatability	±0.1°C
Resolution	0.1°C
Response time (T10-90%)	< 10 min
Transfer accuracy	< 0.05°C/a
Sensor type	PTAT

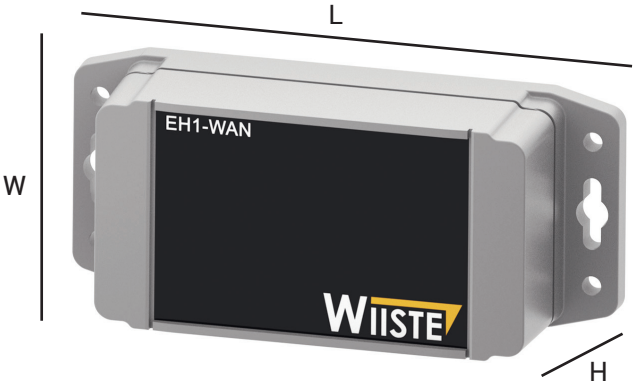


Electrical properties

Internal power supply	3.6 V/1.2 Ah/4.32 Wh (Li-SOCl2)
Network connection	LoRaWAN
Transmitter output	25 mW/14 dBm

Mechanical properties

External dimensions	(see Figure 3)
L	86 mm
W	55 mm
H	23 mm
D	≥ 15 mm
Weight	38–50 g (D = 15–70 mm)
IP rating	IP68



Use and storage

Operating temperature range	–40…+85°C
Storage conditions	20–30°C/40–60%RH

The product must be stored protected from sunlight, dust, chemicals, and chemical vapor.

CE

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