ELT-ETH LoRa

Wireless Sensor

The **ELT-ETH LoRa** is a LoRaWAN® wireless sensor designed for both indoor and outdoor use. The variant combines ELT LoRa radio and internal environmental sensing with an external SHT41 temperature and humidity probe with filter cup pre-assembled for flexible field measurement.

The ELT-ETH LoRa is a battery-powered device designed to be wall mounted. The sensor supports NFC (Near Field Communication) for easy configuration with an NFC-enabled smartphone, and settings can also be configured over the air via LoRaWAN downlink.

Product features

- LoRaWAN® radio
- Compatible with LoRaWAN 1.0.3
- Temperature sensor
- Humidity sensor
- Accelerometer sensor
- Atmospheric pressure sensor
- External SHT41 temperature and humidity probe
- NFC and over-the-air configuration

Applications

- Outdoor environment measuring
- Smart buildings

Device specifications

Mechanical specifications	
Weight	60 g excluding batteries 97 g including batteries
Dimensions	94 x 59 x 35 mm
Enclosure	Polycarbonate
Protection class (ELT LoRa)	IP67
Protection class (ELT-ETH LoRa)	IP54 (with external SHT41 and filter cup)

Operating conditions	
Temperature	–40 to 60 °C
Humidity	0 to 100%
Operating Altitude	0 - 2000 m
Pollution Degree	Degree 2
Usage Environment	Indoor, outdoor
Storage Temperature	–40 to 85 °C

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Device Power Supply	
Battery Type	1 x 3.6V AA Lithium Battery (AA 14505)
Expected Battery Life	Up to 10 years (Depending on configuration and environment)

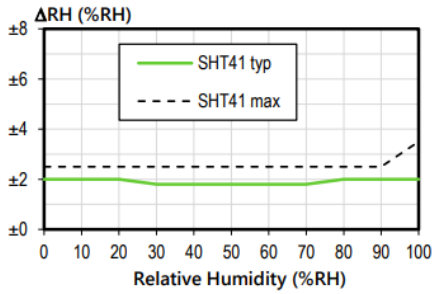
Radio / Wireless	
Wireless Technology	LoRaWAN 1.0.3
Wireless Security	LoRaWAN End-to-End encryption (AES-CTR), Data Integrity Protection (AES-CMAC)
Device Type / Features	Class A, B or C; OTAA, ABP, ADR, Adaptive Channel Setup
Available Frequencies	EU863-870, IN865, US902-928, AU915-928, AS923, KR920-923, HK923
RF Power / Link Budget	Max 14 dBm EIRP; 137 dB (SF7) to 151 dB (SF12)

Device Logging Function	
Sampling Interval	Configurable via NFC and downlink configuration
Data Upload Interval	Configurable via NFC and downlink configuration

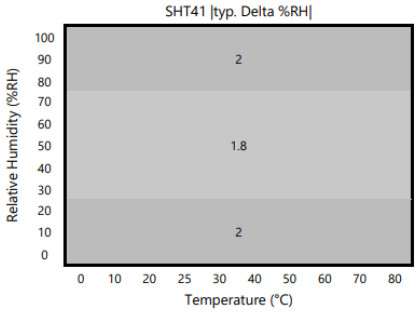
User Interface	
LED	Sensor start-up and LoRa transmission indication.
App Support	Sensor Settings (using NFC); configuration by downlink.

Country of origin	
Product & Firmware Development	Sweden
Plastic casing	Sweden
Production	Sweden, Latvia, Lithuania

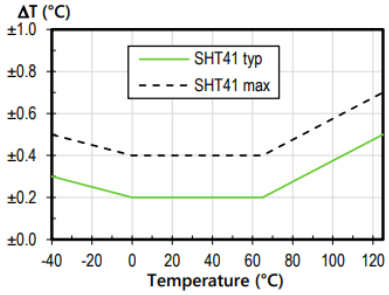
External sensor accuracy



Typical and maximal relative accuracy at 25 °C.



Typical RH accuracy tolerance over humidity and temperature



Typical and maximal temperature accuracy.

Mounting

If the sensor is to be placed in environments where it may get wet, consider water runoff, and place the sensor with the filter cup pointing downwards.

Ordering Information

Art. No.	Description
ELT-ETH LoRa	ELT LoRaWAN with ext. SHT41 and filter cup pre-assembled

Document Revision History

Version	Description	Date
1.0	First version	2025-12-11

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