

5xxxN Series
Wireless Humidity Sensor

QUICK START GUIDE



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PRODUCTS COVERED BY THIS QUICK START GUIDE

This guide is intended for use with several TE Connectivity wireless humidity sensors. This includes:

Model Number	BLE	LoRaWAN® Amer & Europe	Hazloc Certified	Non-Hazloc
55xxN-NX	●	Europe only		●
55xxN-EX	●		●	
59xxN-NX	●	●		●
59xxN-EX	●	●	●	

Note: Please review datasheet for specific models and configurations. In addition, HazLoc approved devices require specific handling and mounting to conform to regulation. Please refer to additional included documentation. The user manual, with all required RF compliance information, is available online on TE.com

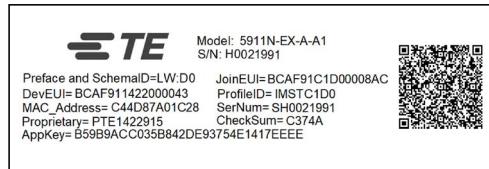


WHAT'S IN THE BOX?

Contents



Sensor



Device keys
(LoRaWan models only)

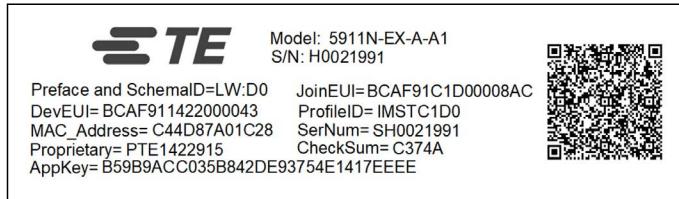


Battery
installation tab



Battery
(Saft LS17330)

LoRa Keys Device Label Content



Example

1 LW:D0 2 BCAF91C1D00008AC 3 BCAF911422000043
4 IMSTC1D0 5 C44D87A01C28 6 SH0021991 7 PTE1422915
8 B59B9ACC035B842DE93754E1417EEEE
9 5911N-EX-A-A1 10 C374A

Item	Field Value	Definition
1	LW and DO	Preface LW is used as a marker for information headers, DO stands for Device Schema Version 0
2	JoinEUI	JoinEUI is a global application ID stored in terminal devices
3	DevEUI	DevEUI is the device unique identifier specified in the LoRaWAN protocol
4	ProfileID	IMST is the vendor identifier, C1D0 is the device type identifier
5	MAC_Adress	Mac Addr is the unique identification number of the device
6	SerNum	S stands for Serial Number, H0021991 is the specific value of the serial number
7	Proprietary	P stands for Proprietary, TE is the brand name, 1321 is the device type, 868 is the frequency band
8	Appkey	Appkey is the security key when register the sensor into the gateway
9	Model Number	Model number , example 5911N-EX-A-A1
10	CheckSum	C stands for CheckSum; the value is calculated using CRC16-modbus algorithm

SENSOR FEATURES

- Magnetic switch location



- LED location



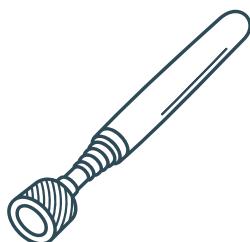
- Antenna locations



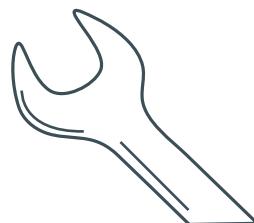
RECOMMENDED TOOLS (NOT INCLUDED)

- Open end or adjustable wrench
- Magnet, such as a magnetic pick up tool

TE Connectivity (TE) recommends a magnet of sufficient flux density that it can create a magnetic field strength of 25 mT at the switch location shown on the housing.



Magnetic pick up tool



Open end wrench



INSTALLING THE APP

TE provides a quick and simple way to connect to your sensor. Using our TE SensorConnect App, available from the Apple App Store or the Google Play Store, you can do any of the following,

- Initial setup and configuration of the sensor
- Monitor live measurements from the sensor
- Check current software version of the sensor
- Upgrade to new sensor software versions when available.

As new features come available make sure you are always on the latest version of TE SensorConnect

Scan the QR code to download the app on your mobile phone or tablet.



Apple App Store



Google Play Store

INSTALLING THE BATTERY

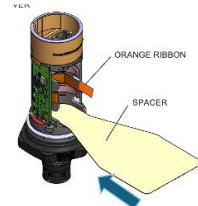
Installing the battery

The TE sensor requires a battery for operation. A Saft model LS 17330, 2/3 A size is required for compliance to safety standards including ATEX and IECEx. TE does not recommend use of other battery manufacturers or models. Performance is not guaranteed without the proper battery.



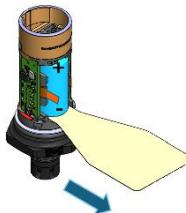
1

- Remove the top cover
- Follow the guiding direction twist to unlock position and pull up on the top cover



2

- Place the spacer under the battery
- Put the orange ribbon back of the cavity before installing the battery
- Install the positive terminal of the battery upward



3

- Pull the spacer out after installing the battery



4

- Install the top cover and tighten it
- Follow the Locking direction

Always use a new battery to ensure proper sensor operation and battery monitoring.

MOUNTING YOUR SENSOR

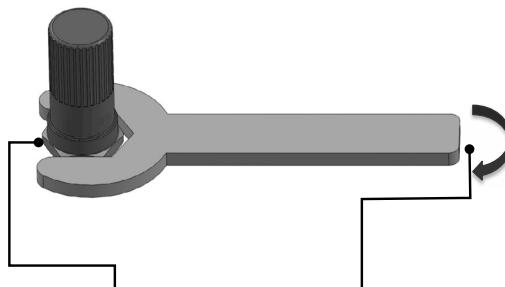
Sensor Mounting

The Humidity sensor should be installed in a clean and compatible thread, with enough room to allow the use of an open-end wrench/spanner. The mounting torque for the sensor does not exceed 5Nm.

Tighten by hand to just a light finger-tight, then use a torque wrench with the appropriate torque.



Do not tighten the sensor by twisting on the housing, damage on the sensor will occur



Open end wrench size:
1-7/16in or 36mm

WARNING: Do NOT tighten the sensor by twisting on the housing. Damage to the sensor will occur.
Tighten to the correct torque using a wrench on the hex base.

WARNING: Install in a process connection with enough room to allow the use of Spanner/Wrench.

WARNING: To reduce the risk of burns or frost bite, wear protective personal equipment when installing or removing from high or below-freezing temperature process or environments.

1) Unable to see sensor when scanning for devices using BLE?

- Check to make sure battery is properly inserted, paying attention to the battery polarity
- The sensor BLE radio may be in a sleep condition, use a magnet and touch it near the magnet icon on the white housing for a period of 1-2s and look for the Yellow LED to start flashing briefly. The BLE radio will now be active for 1 hour.

2) Unable to connect my LoRaWAN sensor to my LoRaWAN gateway

- Check to make sure battery is properly inserted, paying attention to the battery polarity
- The sensor radio may be in a sleep condition, use a magnet and touch it near the magnet icon on the white housing for a period of 1-2s and look for the Yellow LED to start flashing briefly. The sensor will now be active for 1 hour.
- Ensure you use the LoRaWAN devices keys found inside when connecting your gateway and LoRaWAN Network server, if you have lost these keys please contact TE customer care for support.
- Follow the user manual and install guides found on TE.com

3) How do I determine battery level?

- You can use the TE SensorConnect app to connect and find sensor information such as battery level, live data, settings, etc.

4) Where do I find a new battery when I need to replace it

- TE recommends only to use the SAFT LS17330 model battery and only purchase them from their authorized distributors, see their website for this information.

5) Why is the battery level still low after replacing the battery?

- After replacing the old battery with a new battery, you need to reset the battery level which can be done using the TE SensorConnect app or sending the reset command over BLE via your application.

6) What wireless communication protocols does the 5xxxN sensor support?

- The 5xxxN supports LoRaWAN® and Bluetooth® Low Energy (BLE) for reliable long-range connectivity in remote locations.

7) What is the battery life of the 5xxxN sensor?

- The sensor offers up to 8 years of battery life, depending on the measurement schedule and environmental conditions.

8) What is the operating temperature range of the 5xxxN sensor?

- The sensor operates in temperatures ranging from -30°C to +75°C, suitable for a wide variety of industrial applications.

9) How often does the sensor transmit data, and can this be configured?

- The data transmission interval can be configured by the user, allowing flexibility to set updates as frequently as every few seconds, optimizing data granularity or conserving battery life as needed. Additionally, users can define thresholds for humidity and temperature levels, enabling the device to transmit alerts only when critical limits are exceeded. This capability integrates with LoRaWAN® connectivity, supporting reliable, long-range communication even in hard-to-reach industrial environments. Through the companion mobile app, users can adjust these settings, monitor real-time data, and receive notifications of threshold breaches, helping streamline maintenance and operational efficiency.

10) How is the sensor installed, and are there any specific mounting requirements?

- The compact design allows for easy installation without complex modifications. The sensor can be mounted in various orientations depending on the application.

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