TF10LP
LoRa & LoRaWAN Smart Temperature & Humidity Sensor: Accurate Measurements with superior performance.

The TF10LP is a cost-effective, compact, primary battery based LoRa Temperature and Humidity sensor that can be used in variety of use cases ranging from cold-chain monitoring, smart kitchens, data-centres, airports, retail shops and monitoring refrigerators, chillers etc. The compactness and the design of the sensor makes it easy to use without any hassles.

Key Features

- Range – up to 2000 meters
- Battery life up to 3 years
- Configurable sampling frequency
- Accurate measurements:
  - Temperature - ±0.3°C
  - Humidity - ±2RH
- Best in class performance
- Robust and reliable design
- Remote configurations
- IP66 rating

Applications

- Distribution and cold chain
- Data centres
- Smart Kitchens
- Airports
- Industrial
- Pharmaceutical

65mm x 27mm x 101mm

Key Benefits

- **Real-Time Alerts:** Instant notifications for temperature or humidity breaches to prevent spoilage.
- **Environmental Monitoring:** Tracking of temperature and humidity to ensure product integrity.
- **Regulatory Compliance:** Auto-generated audit trails and reports for effortless regulatory alignment.
- **Industrial Grade Design:** Suitable for harsh or moisture-prone environments.

Robust Security, Seamlessly Integrated

- **Verified Boot Process:** Ensures only trusted software from authenticated sources runs on the device.
- **Hardened I/O Interfaces:** External ports are access-controlled to prevent unauthorized intrusion.
- **Strong Authentication:** Secure user and device identity management with updated credentials and access controls.
- **Encrypted Communication:** Advanced encryption protocols for secure data transmission, including OTA updates.

Technical specifications:

Parameter	Specification
Wireless Communication	LoRa
Power Supply	AA – non-rechargeable battery
Battery	3.6V Lithium Primary battery, 1650mAH
Operating Temperature	-25°C to +60°C
Operating Humidity	10% to 90%
Enclosure	IP66 [Food Grade]
User Indication	1 LED
User Switch	Activation / Deactivation
Temperature measurement accuracy	±0.3°C, Drift less than 0.01°C per year
Humidity sensor measurement accuracy	±2%
Temperature sensor measurement range	-40°C to +80°C
Humidity sensor measurement range	0% to 100%
Operational shock	30g
Operational vibration	3.5g
Data backup	6,000 records
Dimensions	65mm x 27mm x 101mm
Product Life	7 years**
Communication Protocol	thinxview / custom Platform
Security	Encrypt (256-bit key exchange and AES-128)
Target Regions	Global

Ordering Information

Part Number	Description
TFEN62P560	TF10Plus → Long Range Temperature Humidity Sensor without external probe
TFEN62P560E	TF10Pro → Long Range External probe temperature sensor for wide measurement range
TFEN62P560ED	TF10Max → Long Range On board Temperature Humidity Sensor + External Probe Temp Sensor for wide measurement range

Please visit for more information

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