LANSEN

Outdoor temperature and humidity sensor

DEVICE

This ambient temperature and humidity device from Lansen is a plug-and-play transmitter suited for outdoor usage. The device is made of highly durable PC plastic with highest accuracy on-board temperature and humidity sensor.

PERFORMANCE

The internal radio antenna is optimized for 868Mhz and is tuned for mounting on concrete, wood or plaster. Each device has two antennas one in each direction to maximize the range between the meter and the collectors. The battery level is continuously monitored and a low level warning is issued when battery is nearing depletion. Note that the sensor is not designed for operating in constant freezing temperature.

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FIRMWARE

MODES	mioty ETSI TS-103-357
ENCRYPTION	Network: AES128 encryption

INTERVAL

SAMPLE	5 min
TRANSMISSION	15 min

MIOTY DATA

TEMPERATURE	Current, 15 min ago, avg. last 30 min, avg. 31-60 min
HUMIDITY	Current, 15 min ago, avg. last 30 min, avg. 31-60 min
BATTERY	Current battery voltage
	Low battery warning (2.6V)
OPERATING	Total operating time (years)
NOT ACTIVATED	If device has not been activated yet

POWER/LIFETIME

POWER SUPPLY	3.6V Li-SOCl2, ER17505 soldered battery
	(optional battery holder)
VOLTAGE	2.4 to 3.6V
LIFESPAN	14 years expected*, standard configuration and
	recommended operating temperature
RADIO	14 dBm (25 mW) output power to antennas
	ERP typical up to: 12.4 dBm (17.4 mW)
ANTENNAS	2 antennas for true differential transmission

GENERAL INFORMATION

STANDARDS	2014/53/EU (RED)
MATERIAL	Signal white PC UV stabilized plastic
SIZE (W x H x D)	95 x 65 x 55 mm
IP	66

OPERATING CONDITIONS

RADIO TRANSMITTER Max: 0^0 to + 85^0.

Recommended +5^0 to +50^0

DEVICES

LAN-MIOTY-O-TH	Outdoor temperature and humidity transmitter

TEMPERATURE SENSOR

The on-board temperature sensor is highly accurate with typical accuracy as below.
- ±0.2°C at -40°C to +85°C
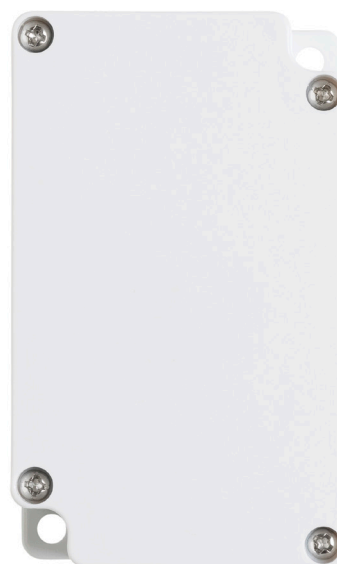- ±0.3°C at -40°C to +85°C

HUMIDITY SENSOR

The on-board humidity sensor is highly accurate in the entire temperature range, with typical accuracy ±2%RH.

MEASUREMENTS

Temperature and humidity is sent at a preconfigured interval and the data is sent using the mioty protocol. This makes the sensor ideal for integration in data collecting systems. The mioty data contains current, average last 30 min, average last 31-60 min, and more. The data from the device is protected using the AES128 encryption compliant with mioty standard.

INSTALLATION

The device is waterproof and resistant to raining water thanks to a membrane at the bottom of the device. The device should, if possible, still be mounted protected from rain and sunlight. The device is started using a simple magnet so the enclosure does not need to be opened.

mioty

*The expected battery lifetime stated is based on simulations and true measurements at 25 C° and is valid to the best of our ability but not a guarantee. The calculations and measurements can be sent upon request for your reference.

Specifications in this document are subject to change without notice

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