LANSEN

Temperature and humidity sensor

DEVICE

The ambient temperature and humidity device from Lansen is a plug-and-play room temperature and humidity transmitter. Much care have been taken to design a sleek, good looking device with high security and performance. The design allows for discrete integration when mounted in home environment.

PERFORMANCE

The device has a robust design with innovatie optical tamper detection function that will alert if the device is opened. A bit in the status message is set if sabotage is detected or restored. The battery level is continuously monitored and a low level warning is issued when battery is nearing depletion. For maximum range, the device has a fine-tuned internal antenna.

TEMPERATURE SENSOR

The on-board temperature sensor is highly accurate with typical accuracy $\pm0,2^0$C.

FIRMWARE

MODES	C, T or S
SEND INTERVAL	60s - 1 hour
SAMPLE INTERVAL	Same as send interval
ENCRYPTION	AES128 encryption OMS mode 5, Profile A. ON/OFF, and custom KEY
STANDARD	T1-mode, 150 seconds, Encryption ON, unique key.

SENSORS

TEMPERATURE	RANGE: -40^0C to $+85^0$C TYP
	ACC: $\pm0,2$ at 0 to $+65^0$
HUMIDITY	TYP ACC: ±2% RH at 20-80% RH.

WARNINGS

TAMPER DETECTION	Product opened or removed from the wall
BATTERY	Low battery

POWER/LIFETIME

POWER SUPPLY	ER14505 3.6V Li-SOCl2 battery.
VOLTAGE	2.4 to 3.6V
LIFESPAN	14*** years typical, standard configuration and operating temperature.
RADIO	14 dBM (25 mW) output power to antenna. ERP typical: 9.7 dBm (9.3 mW)
BATTERY	Soldered or optional battery holder.

GENERAL INFORMATION

STANDARDS	2014/53/EU (RED) EN 13757-3/4:2013, OMS 4.0.2*
MATERIAL	White, ABS
SIZE (W x L x D)	32 x 88,5 x 25,5mm

OPERATING CONDITIONS

RADIO TRANSMITTER	$+0^0$ to $+55^0$C**
RELATIVE HUMIDITY	None condensing

DEVICES

LAN-WMBUS-CX-TH   Ambient Sensor for temperature/humidity

HUMIDITY SENSOR

The on-board humidity sensor is highly accurate, with typical accuracy ±2%RH.

MEASUREMENTS

Temperature and humidity is send at a predefined interval and the data is sent using the Wireless MBUS protocol OMS compliant. This makes the sensor ideal for integration in data collecting systems or drive-by solutions.

The data from the device is also protected using the AES128 encryption compliant with OMS standard.

CONFIGURATION

The device can be ordered with custom MBUS mode, transmission interval and encryption.

MOUNTING

The device is either mounted with adhesive tape or with screws.

The device is easily activated by using any standard magnet.

* The pseudo random delay between each packet transmission is longer to make collision more unlikely compared to the OMS specification. Can in volume be ordered with standard delay.

** Temperature outside this range can affect the possibility to receive data from the device.

*** 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.

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