LANSEN

Temperature sensor

DEVICE

The ambient temperature device from Lansen is a plug-and-play room temperature 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 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.

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 keyv

SENSORS

TEMPERATURE:	RANGE: -40^{0}C to +85^{0}C TYP
	ACC: ±0.2°C at 0°C to +65°C

WARNINGS

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 (standard) 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°C to +55^{0}C***

DEVICES

LAN-WMBUS-CX-T	Ambient Sensor for temperature

TEMPERATURE SENSOR

The on-board temperature sensor is highly accurate with typical accuracy ±0.2°C.

MEASUREMENTS

Temperature is sent at a predefined interval and the data is sent using the wireless M-Bus 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 M-Bus mode, transmission interval and encryption.

MOUNTING

The device is either mounted with adhesive tape or with screws. The device with soldered battery is started using any standard magnet.

* Both C- and T-mode use the same radio settings both compatible with T1-mode in EN13757. Except that C1-mode uses NRZ encoding and T1-mode uses 3outof6 encoding. Deviation 50kHz and bit rate typ. 98-102kbit.

** 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.

Specifications in this document are subject to change without notice
v.1.5