

# LANSEN

LAN-MIOTY-O-T

## Outdoor temperature sensor

### DEVICE

The outdoor ambient temperature device from Lansen is a plug-and-play transmitter. The device is made of highly durable PC plastic with highest accuracy on-board temperature asensor.

### 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. The sensor is not designed for operating in constant freezing temperature.

Note that this sensor is not designed for operating in constant freezing temperature. If this is required then a device ending with -H (harsh) is needed.

### 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  
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-SOCI2, ER17505 soldered battery  
(optional battery holder)  
VOLTAGE 2.4 to 3.6V  
LIFESPAN 14 years expected\*, standard configuration and  
recommended operating temperature  
RADIO 16 dBm (25mW) output power to antennas  
ERP typical up to: 12.4 dBm (17.4 dBm)  
ANTENNAS 2 antennas for true differential transmission

### GENERAL INFORMATION

STANDARDS 2014/53/EU (RED)  
MIOTY ETSI TS-103-357  
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°C to + 85°C  
Recommended +5°C to +50°C

### DEVICES

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### TEMPERATURE SENSOR

The on-board temperature sensor is highly accurate with typical accuracy as below.

- $\pm 0.2^{\circ}\text{C}$  at  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- $\pm 0.3^{\circ}\text{C}$  at  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

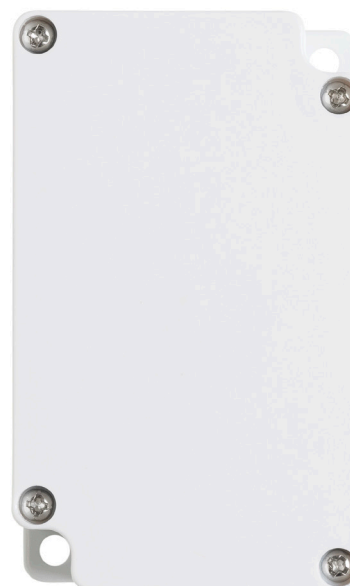
### MEASUREMENTS

Temperature 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. Furthermore, the data is protected using the AES128 encryption.

### INSTALLATION

The device is waterproof and resistant to raining water. 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.



\*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.