

Outdoor Temperature Sensor

DEVICE

The outdoor ambient temperature device is a plug-and-play transmitter. The device is made of highly durable PC plastic and the device includes a high accuracy on-board temperature sensor.

PERFORMANCE

The internal radio antennas are optimized for 868Mhz and are tuned for mounting on concrete, wood or plaster. Each device has two antennas, one in each direction to maximize the range between meters and collector. The battery level is continuously monitored and a low level warning is issued when battery is nearing depletion.

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.

TEMPERATURE SENSOR

The on-board temperature sensor is highly accurate with typical accuracy $\pm 0.2^{\circ}\text{C}$.

MEASUREMENTS

Temperature is sent at a preconfigured 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 M-Bus data contains current, average hour and average 24 hours.

The device complies with the OMS 4 synchronize message, sending the data pseudo random to avoid collisions.

INSTALLATION

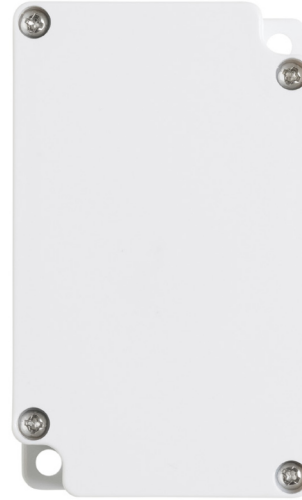
The device is waterproof and resistant to raining water. The device should, if possible, still be mounted protected from rain and sunlight.

The device is started using a simple magnet so the enclosure does not need to be opened.

SPECIFIKATIONS

FIRMWARE

SEND INTERVAL	90 seconds
SAMPLE INTERVAL	Same as send interval
ENCRYPTION	AES128 encryption OMS mode 5, Profile A. ON/OFF, and custom KEY
MODES	T1-Mode, 90 seconds. Encryption ON, unique key.



SENSORS

TEMPERATURE
TYP ACC

RANGE: -400°C to $+850^{\circ}\text{C}$
 $\pm 0.2^{\circ}\text{C}$ at 0°C to $+85^{\circ}\text{C}$
 $\pm 0.3^{\circ}\text{C}$ at -40°C to $+85^{\circ}\text{C}$

Note: Even better accuracy possible on request.

WARNINGS

BATTERY

Low battery

POWER LIFETIME

POWER SUPPLY
VOLTAGE
LIFESPAN
configuration
RADIO

ER17505 3.6V Li-SOCI2, battery
2.4 to 3.6V

14* years typical, depending on and operating temperature.

14 dBm (25 mW) output power to two differential antennas. ERP typical: 12.4 dBm (17.38 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

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: -30°C to $+85^{\circ}\text{C}$

Recommended -20°C to $+50^{\circ}\text{C}$

*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.2.1