

Temperature and humidity sensor

The ambient temperature and humidity device from MIVO Technology is a sleek, plug-and-play sensor that accurately monitors indoor climate. Designed with both performance and aesthetics in mind, it blends discreetly into any home environment while delivering reliable measurements.

The device features a robust design with innovative optical tamper detection that instantly alerts if the unit is opened. Battery status is continuously monitored and sends a warning when power is running low. Dual finely tuned internal antennas ensure maximum range and stable communication.

HUMIDITY SENSOR

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

TEMPERATURE SENSOR

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

FIRMWARE

MODES	C-, T- or S-mode (selectable on order)
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, 90 seconds, Encryption ON, unique key.

SENSORS

TEMPERATURE	RANGE: $-40^{\circ}C$ to $+85^{\circ}C$ TYP ACC: $\pm 0.2^{\circ}C$ at $0^{\circ}C$ to $+65^{\circ}C$
HUMIDITY	TYP ACC: $\pm 2\%RH$ 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-SOCI2 battery.
VOLTAGE	2.4 to 3.6V
LIFESPAN	14* years typical, standard configuration and operating temperature.

RADIO

14 dBm (25 mW) output power to two differential antennas.

BATTERY

ERP typical: 5.2 dBm (3.3 mW)
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	Max: $-30^{\circ}C$ to $+85^{\circ}C$.
RELATIVE HUMIDITY	Recommended: $+5^{\circ}C$ to $+50^{\circ}C$ None condensing

MEASUREMENTS

Temperature and humidity 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. The device can also be configured afterwards using a configuration cable.

MOUNTING

The device is either mounted with adhesive tape or with screws. The device is easily activated by using any standard magnet.

* The expected battery lifetime stated is based on simulations and true measurements at $25^{\circ}C$ 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.