

## WiSensys® Wireless Sensor WS-DLTh

### Overview

WS-DLTh measures thermocouple signals and transmits data to the base station. Sensing is done using any available thermocouple sensor of the J, K or S type. Sensor values are sent by the receiving base station to:

- WiSensys® PC software **SensorGraph** via a serial interface or to
- Wisensys® internet **Websensys** via TCP/IP or GPRS
- Or to a data logger, PLC, automation system via RS485/422

The intervals for sensing and transmission are set at installation time. Values can be changed using SensorGraph running on a PC.

WS-DLTh has a unique identity and a network ID. Transmitted data is encrypted thereby avoiding other wireless systems or receivers to receive the data. Optionally the following values can be assigned to WS-DLTh:

- Friendly Name,
- Sensor type (K, J, S)
- Minimum Trip Value
- Maximum Trip Value.

Trip values are used to signal an alarm condition to the base station.

The sensor can locally store up to 10.000 measurements in non-volatile memory. This storage is used when a connection to the base station is not available to ensure that measurements are not lost. Whenever the sensor and base station are in range again, the data is transmitted to the base station.

The distance between sensor and base station can be up to 1000 meters in case of free line-of-sight. Characteristic in-building range values are between 50 and 80 meters.

The WS-DLTh has an own power supply using a PP3 9V Lithium battery. With default settings of sensing and transmission intervals, the lifetime of the battery is 3 years.

### Features

- Measurement of temperature input values
- Ability to store 10.000 measurements; overwrites oldest data when full
- Programmable measurement interval
- Programmable transmission interval
- Attractive ABS enclosure; other enclosures upon request
- Wall mounting possibilities included in enclosure
- Range: 1000m with free line-of-sight
- Easy to add sensors to operational system
- PC software for installation
- User replaceable battery
- Variant with external antenna

## Specification WS-DLTh

<b>Function</b>	Sensor
<b>Type</b>	Analog input, 1 channel
<b>Sensor type</b>	External; K, J or S type
<b>Measurement range</b>	Depends on sensor type and material; negative values are possible
<b>Measurement accuracy</b>	+/- 0.1% +/- 0.5 °C
<b>Measurement resolution</b>	0.1 °C
<b>Measurement interval (M)</b>	From 1 second up, programmable from PC. Maximum 200 seconds, <b>default</b> 20 seconds.
<b>Samples per transmission (T)</b>	From 1 to 10 samples <b>default</b> 1.
<b>Threshold values for base alarm</b>	Min/max temperature
<b>Operating limits</b>	-20 °C to +80 °C (excluding sensor)
<b>Power</b>	1 AA 3.6V Lithium battery
<b>Battery life<sup>1</sup></b>	3 years with <b>default</b> settings for M and T 5 years with M=60 seconds and T= <b>default</b>
<b>Memory</b>	10.000 measurements
<b>Radio standard</b>	ETS 300 220
<b>Frequency</b>	868 – 870MHz (915MHz US)
<b>Range</b>	1000m free line-of-sight
<b>Housing</b>	IP65
<b>Color</b>	WiSensys® Blue
<b>Dimensions<sup>2</sup></b>	60(w) x 80(h) x 26(d) mm, excl. wall mount
<b>External antenna</b>	Optional, sold separately. Variant.
<b>Configuration</b>	Through WiSensys® PC software SensorGraph
<b>Regulatory</b>	R&TTE, CE (EMC and Low voltage directive)

1) For WS-DLTh battery life also depends on operating temperature.

The specification is subject to change without notice.

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