

Data Sheet HeatMoniSpot, monitoring heat in pipes

Revised: November 2019

- ❖ Measuring temperature on heat pipes, refrigerators, freezers, etc.
- ❖ Monitor central heating systems.
- ❖ Work on all different pipe materials.
- ❖ Slim; can be installed on limited space.
- ❖ Wireless sensor, transmitting measured data to the ReMoni cloud solution, ReCalc.



APPLICATION

HeatMoniSpot is a flow sensor, measuring if there is flow in a pipe.

HeatMoniSpot is fast and easy to install on different types of pipes and dimensions. This can be e.g. pipes with cold or hot water or heating pipes. The probes are simply fastened to the pipe which is to be measured and the sensor is fastened somewhere near to the pipe. It is possible to extend the probe wires if the sensing end of the probes is reattached.

HeatMoniSpot is a wireless sensor, transmitting measured data to the ReMoni gateway and therefrom to ReCalc.



INSTALLATION

The installation manual can be downloaded from ReMonis website in the download section:
<https://www.remoni.com/support>

WIRELESS DATA TRANSMISSION

The data sheet for wireless communication can be downloaded from ReMonis website in the download section:
<https://www.remoni.com/support>

HARDWARE AND SOFTWARE TESTS

All ReMoni products are tested individually before shipped from the factory.

SOFTWARE CONFIGURATION

There is no software to be configured on the gateway. All configurations are made in ReCalc:
<https://recalc.remoni.com>

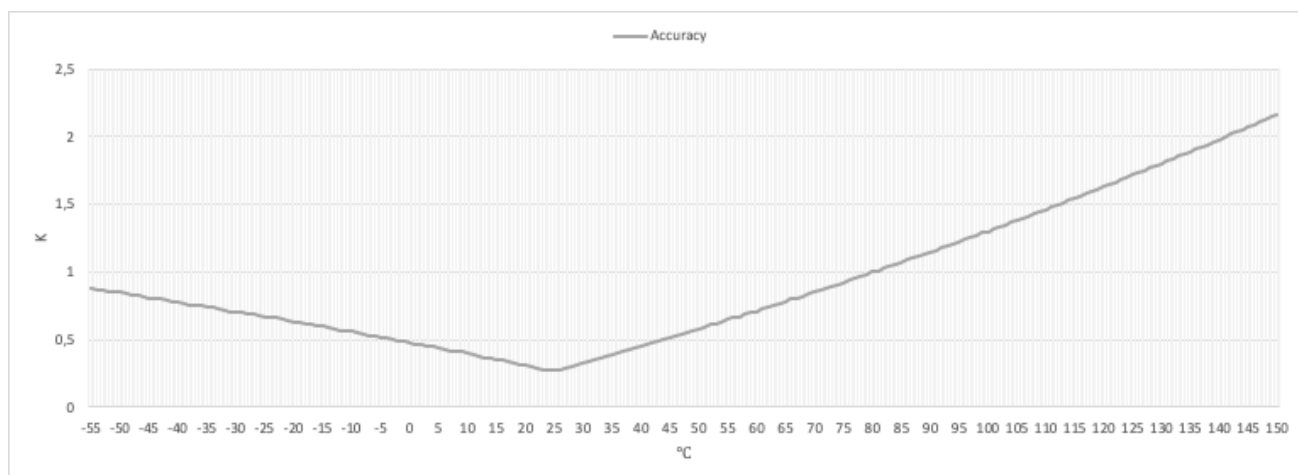
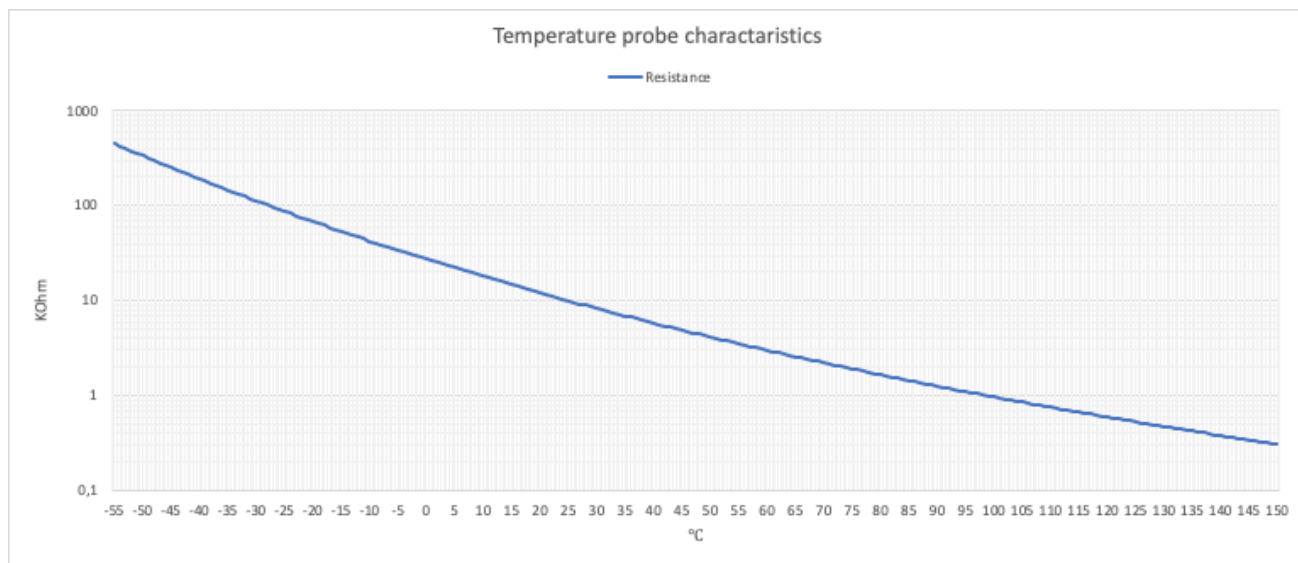
TECHNICAL DATA

HeatMoniSpot	
Mounting and measuring:	
Mounting:	Mounted somewhere near the pipes, using the prepared mounting possibilities on the bottom of the sensor.
Mounting of probes	The probes are taped to the pipes using aluminium tape.
Pipe materials:	Metal (e.g. stainless steel, galvanized steel, copper, copper alloy, cast iron). Plastic (e.g. PVC, PE, PEX, PP, ALUPEX).
Pipe dimensions:	All pipe dimensions.
Measuring method:	Temperature difference, between the measured pipes and surrounding temperature, combined with math.
Measuring value:	The temperature in pipes, refrigerators, freezers etc. and an indication of flow in pipes.
Accuracy:	± 0.5°C between 0°C and 40°C ± 1.0°C between - 40°C and 80°C (See Probe characteristics)
Battery type:	1 x 3.6 V 2.5 Ah AA Li-Me battery.
Battery lifetime:	15 years ¹
Sampling rate:	Four data intervals are available and can be adjusted from ReCalc: Low data - 5 minutes (<i>standard</i>) High data - 1 minute. Very high - 20 seconds. (<i>resets after one hour</i>) Extremely high - 3 seconds. (<i>resets after one hour</i>) Note that high sampling rate will affect the battery lifetime.
Outline data:	
Surrounding temperature:	-20°C to 70°C.
Transport temperature:	-40°C to 80°C.
Encapsulation material:	PC, polycarbonate.
Protection class:	IP64.
Colour:	RAL 9005 (black).
Weight:	81 g.
Application area:	Indoor and outdoor. When mounted outdoors all penetrating cables and wires shall be turned downwards.
Product conformity:	CE. - RED (2014/53/EU). - LVD (2014/35/EU). - RoHS Directive 2011/65/EU.
Standards:	RED: - EN 300 220-2 V3.1.1:2017-02 LVD: - EN 62311:2008

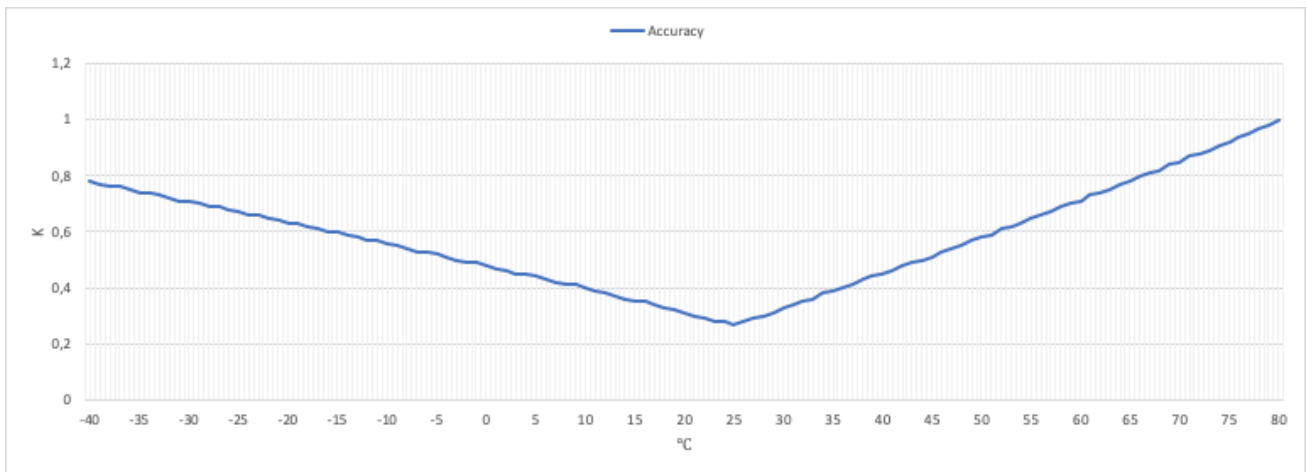
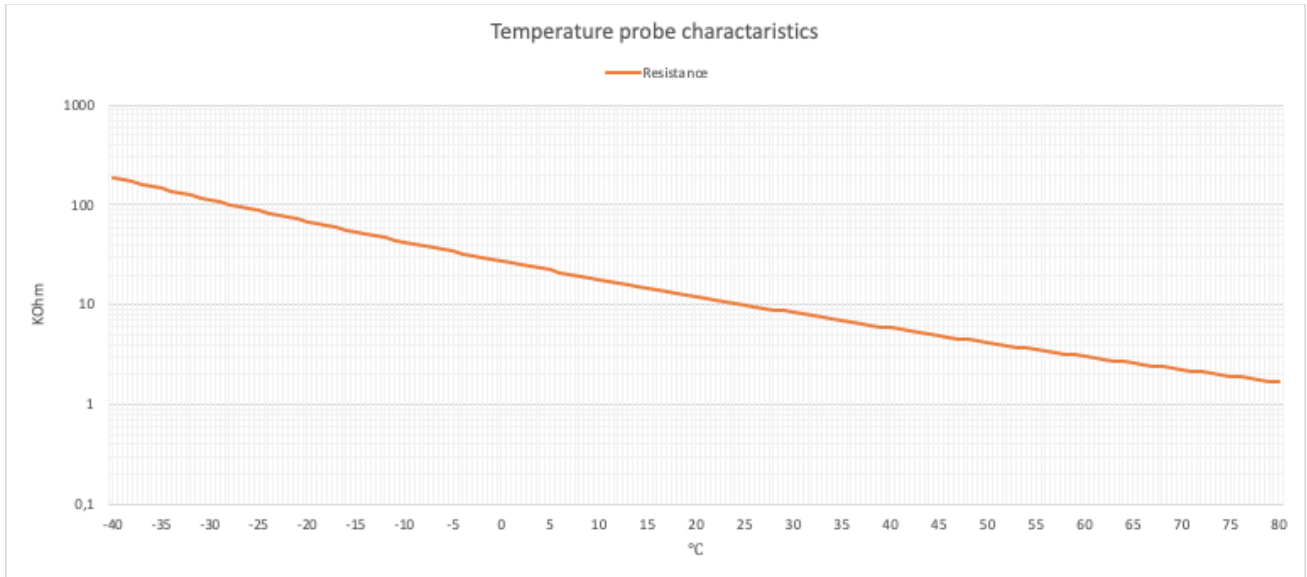
¹ Is based on a standard sampling rate of 5 minutes at room temperature of 20°C. Changes in sensor data interval can affect the standard battery lifetime.

PROBE CHARACTERISTICS

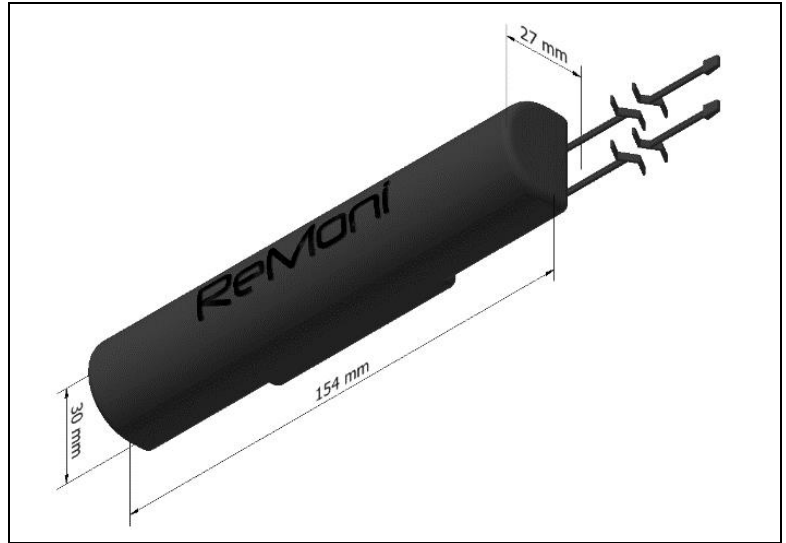
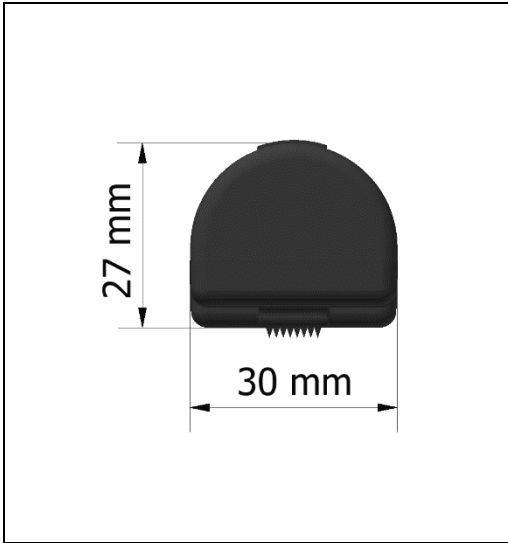
External probe				
Part identification	R ₂₅		B _{25/85}	
	kΩ	± %	K	± %
NTCLE413-428 10K 1% B3435 K	10	1	3435	1.0



Internal probe				
Part identification	R ₂₅		B _{25/85}	
	kΩ	± %	K	± %
NTCS0603E3103FLT 10K 1% B3435 K	10	1	3435	1.0



DIMENSIONS



ANNEX

Instructions for disposal of WEEE by users of the European Union



This product must not be disposed of with other waste. Instead, it's the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for recycling of electrical and electronic waste equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensures that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local office, your household waste disposal or where you purchased your product.



The product contains lithium battery/s.
Must recycle or dispose of properly.

CONTACT

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The latest version of the datasheet is available at <https://support.remoni.com/>.