



## **Wireless humidity, temperature TH-BLE**

DATASHEET

Serial number S  
Date D  
MAC - address M



## 1 BASIC INFORMATION ABOUT THE PRODUCT

Full name of the product:	Wireless Bluetooth humidity temperature sensor TH-BLE
Short name of the product:	TH-BLE
Factory number of the product:	S
Modification of the product:	
Date of manufacture:	D
Certification Information:	

## **2 GENERAL INFORMATION**

2.1 Wireless Bluetooth humidity temperature sensor TH-BLE (hereinafter - "TH-BLE" or "Sensor" or "Device") is designed to measure humidity, temperature levels as well as to measure static magnetic fields in the device's proximity.

2.2 The parameters sent by TH-BLE include readings on air temperature, air humidity level. Sensor. The Sensor also transmits the current charge of its battery. Additionally, any external device fitted with a BLE interface (a receiver, a GPS tracker with a Bluetooth module or BLE-RS485 adapter) can measure the RSSI indicator of quality of connection with TH-BLE.

And also, depending on the version, TH-BLE can additionally measure illumination, determine the presence of a magnetic field with a hall sensor and monitor the state of two discrete inputs (for limit switches);

2.3 The Device has an autonomous power supply, which is a replaceable lithium battery that does not require any maintenance.

### **2.4 DO NOT DISASSEMBLE THE SENSOR!**

### **2.5 DO NOT USE THE SENSOR UNDER THE OPERATING CONDITIONS DIFFERENT FROM THE STATED IN THE PRESENT DATASHEET!**

### **2.6 AVOID ANY MECHANICAL DAMAGE TO THE DEVICE DURING ITS TRANSPORTATION OR OPERATION.**

<b>Versions</b>	<b>Design features</b>	<b>Commercial name</b>
0	External probe on a wire, hall sensor, no luminosity sensor. Battery capacity 2600mAh	TH-BLE
1	Probe on the device's main body, no luminosity sensor, no hall sensor. Battery capacity 2600mAh	TH-BLE Light
2	Probe on the device's main body, no luminosity sensor, no hall sensor, does not include installation kit. Battery capacity 2600mAh	
3	External probe on a wire, luminosity sensor, digital inputs, hall sensor. Battery capacity 3600mAh	TH-BLE 2Din
4	External probe on a wire, luminosity sensor, hall sensor digital inputs. Battery capacity 3600mAh	
5	External probe on a wire, luminosity sensor, digital inputs, hall sensor. Battery capacity 2600mAh	
6	External probe on a wire, luminosity sensor, hall sensor, digital inputs. Battery capacity 2600mAh	
7, 8	External probe on a wire, humidity sensor, hall sensor, no luminosity sensor. Battery capacity 3600mAh	TH-BLE
9, 10	External probe on a wire, humidity sensor, hall sensor, no luminosity sensor. Battery capacity 2600mAh	
11	Probe on the device's main body, humidity sensor, no luminosity sensor, no hall sensor. Battery capacity 3600mAh	TH-BLE Light
12	Probe on the device's main body, humidity sensor, no luminosity sensor, no hall sensor. Battery capacity 2600mAh	

### 3 TECHNICAL CHARACTERISTICS

Name	Value / units
Temperature measurement range	from -40 °C to +50 °C
Relative error of illuminance measurement, %	25
Absolute margin of error when measuring temperature within -29 °C to +50 °C range	± 0,5 °C
Absolute margin of error when measuring temperature within -40 °C to -30 °C range	± 1,0 °C
Relative air humidity measurement range	from 5 % to 98 %
Absolute relative humidity measurement error at 30 °C on the range from 5 % to 10 % in the range from 10 % to 80 % on the range from 80 % to 98 %	±7,5 % ±5 % ±7,5 %
Illumination measuring range <sup>1</sup> , lx	from 1 to 33024
Number of digital inputs for limit switches <sup>2</sup> , pcs	2
Operating temperature range	from -40 °C to +50 °C
Operating frequency range	from 2,402 to 2,480 GHz
Power supply capacity at 20 °C	2600 mAh
Power supply voltage	from 3,0 V to 3,6 V
Average power consumption, µA, not more than	200
Bluetooth Standard	Bluetooth Low Energy 4.0, peripheral (connection, advertising) Bluetooth Low Energy 5 LR (coded PHY), peripheral (advertising)

Name	Value / units
Operating frequencies	from 2,402 to 2,480 GHz
Max connectivity range Bluetooth (Long Range) outdoors with no obstacles, m	200
Ingress protection rating in accordance	IP54
Dimensions <sup>3</sup> , mm, no more than	
for ver. 0	633x88x38
for ver. 1	113x88x38
for ver. 2	111x82x31
for ver. 3, 4	900x97x33
for ver. 5, 6	900x97x33
for ver. 7, 8	630x97x33
for ver. 9, 10	630x97x33
for ver. 11	113x97x33
for ver. 12	113x97x33
Weight, kg, not more than	0,4

**Notes: 1 - for ver. 3, 4, 5, 6;**

2 - for ver. 3, 4, 5, 6.

## 4 SCOPE OF DELIVERY

Item	Qty	S/N	Notes:
<i>For ver. 0:</i>			
Datasheet	1		in electronic form
Packaging	1		
Sensor TH-BLE	1		
Cover	1		
Set of mounting parts	1		
<i>For ver. 1:</i>			
Datasheet	1		in electronic form
Packaging	1		
Sensor TH-BLE	1		
Cover	1		
Set of mounting parts	1		
<i>For ver. 2:</i>			
Packaging	1		
Sensor TH-BLE	1		
<i>For ver. 3, 4, 5, 6:</i>			
Datasheet	1		in electronic form
Packaging	1		
Sensor TH-BLE	1		
Set of mounting parts	1		
<i>For ver. 7, 8, 9, 10:</i>			
Datasheet	1		in electronic form
Packaging	1		
Sensor TH-BLE	1		
Set of mounting parts	1		
<i>For ver. 11 and 12:</i>			
Datasheet	1		in electronic form
Packaging	1		
Sensor TH-BLE	1		
Set of mounting parts	1		

## **5 PRECAUTIONARY MEASURES**

During the installation, use and maintenance of the Sensor follow general safety instructions for electric devices and equipment.

## **6 SERVICE AND SHELF LIFE, WARRANTY**

6.1 Guaranteed service and shelf life is 1 year after the Device is shipped to the customer.

6.2 Service life – 4 years.

6.3 The manufacturer guarantees that the Device meets all specifications and requirements if the user adheres to transportation, storage and operation requirements.

6.4 If any defect is found, contact the manufacturer.

6.5 The warranty does not cover defects caused by the customer's failure to meet the operation, storage and transportation requirements.

6.6 The manufacturer reserves the right to make changes to the Sensor's design and to the scope of delivery without prior notice to the customer.

6.7 The warranty does not cover the power supply unit of the Device.

## **7 DATE OF MANUFACTURE AND ACCEPTANCE CERTIFICATE**

TH-BLE is manufactured in accordance with the current technical documentation and is declared to be ready for use.





## **11 TRANSPORTATION AND STORAGE**

The product shall be transported in the original packaging in enclosed vehicles. Store in dry places at temperatures of +5 °C to +40 °C and humidity not higher than 80 %. Do not store in spaces with conductive dust, aggressive substances and their vapors that cause corrosion of parts and destruction of electrical insulation of the Sensor.

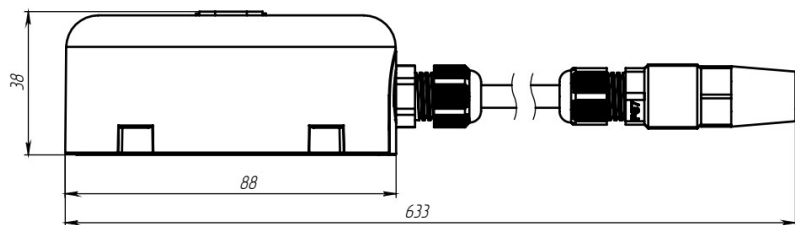
## **12 DISPOSAL AND RECYCLING**

12.1 The Sensor does not contain any hazardous materials.

12.2 The Device does not contain precious metals in the amount to be accounted for.

**APPENDIX A.**  
Product dimensions

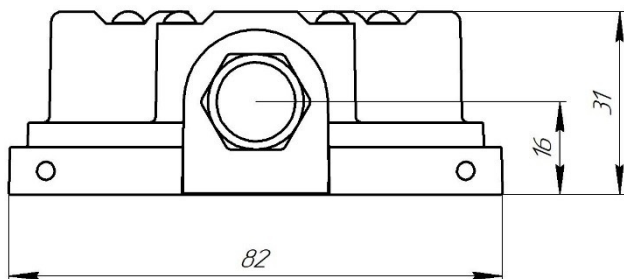
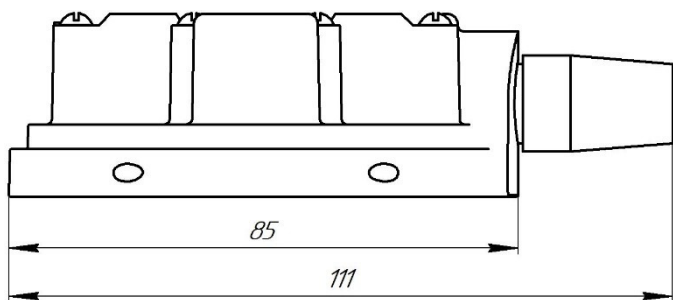
Version 0



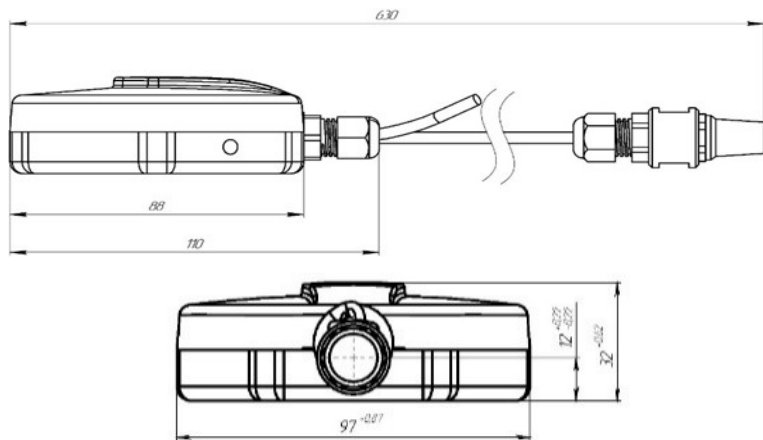
Version 1



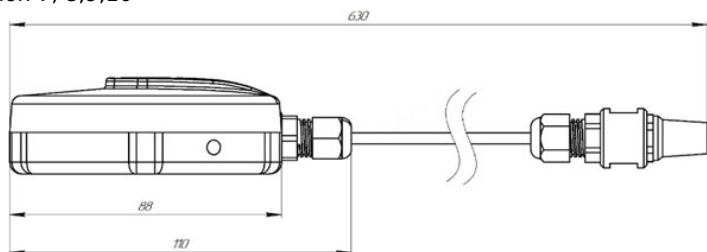
Version 2

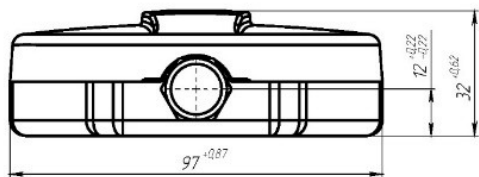


Version 3, 4, 5, 6

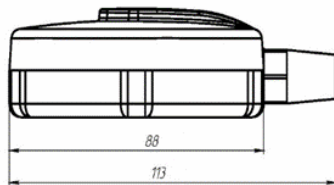
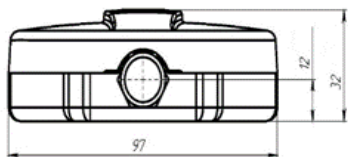


Version 7, 8,9,10





Versions 11, 12



**For notes**