

# Aranet PT100 sensor



- 1 Monitors air, liquid and solid surface temperature
- 2 Up to 3 km / 1.9 mi range
- 3 IP68, designed to endure the harshest environments
- 4 Up to 10 meters of probe length
- 5 Temperature range -50 °C (-58 °F) up to 180 °C (356 °F)



Wireless extreme temperature monitoring for air, liquid or solid surface.

## Aranet PT100 sensor

Class A platinum resistance thermometer

TDSPT306.010 (EU)

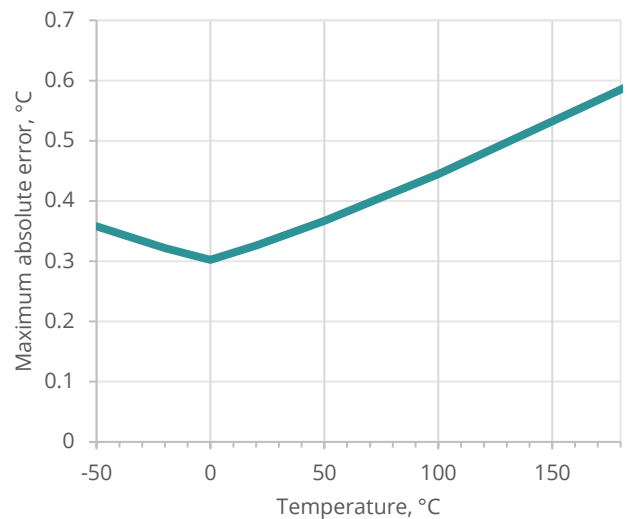
TDSPT3U6.010 (NA)

TDSPT3R6.010 (RU)

### Sensor performance

Range	-50 °C to 180 °C (-58 °F to 356 °F)
Resolution	0.1 °C (0.1 °F)
Accuracy at 0 °C (32 °F) (99 % confidence)	±0.3 °C (±0.5 °F)
Probe material	Stainless steel
Probe dimensions	Ø 6 x 100 mm (Ø 0.24 x 4 in)
Cable insulation material	Silicone
Cable length <sup>1</sup>	1 m (3.3 ft)
Time constant $\tau$ (63 %) <sup>2</sup>	45 seconds
Response time $5\tau$ (99 %)	3.75 minutes

Sensor accuracy<sup>3</sup>



### Radio parameters

Line of sight range	3 km / 1.9 mi
Supported ISM bands	EU868, NA915
Transmitter power	14 dBm
Data transmission (TX) interval	1, 2, 5 or 10 minutes <sup>4</sup>
Data protection	XXTEA encryption
Compatible base stations	Aranet PRO

### Power 1 AA battery

Type	Alkaline <sup>6</sup>	Lithium <sup>7</sup>
Operating temperature	-20 °C to 55 °C (-4 °F to 131 °F)	-40 °C to 60 °C (-40 °F to 140 °F)
TX interval	Battery life @ 20 °C (68 °F)	
1 minute	1.3 years	1.7 years
2 minutes	2.4 years	3.2 years
5 minutes	5.2 years	7.3 years
10 minutes	8.4 years	12 years

### General

Ingress Protection code	IP68
Maximum operating temperature range	-40 °C to 60 °C (-40 °F to 140 °F)
Dimensions	Ø 35 x 120 mm (Ø 1.4 x 4.7 in)
Weight <sup>5</sup>	100 g (3.5 oz)
Enclosure material	ASA plastic
Included in the box	1 AA Alkaline battery, string

### Compliance

CE	Conformité Européenne
IC	Innovation, Science and Economic Development Canada
FCC	Federal Communications Commission (USA)

<sup>1</sup> Customized cable length up to 10 meters available on request.

<sup>2</sup> Response time determined in accordance with standard VDI / VDE 3522 Part 2.

<sup>3</sup> Considering temperature of the radio transmitter being constant +25 °C.

<sup>4</sup> Due to regulatory requirements 1 minute interval in Russia is not available.

<sup>5</sup> Weight with Alkaline AA Fujitsu LR6G07 Premium battery.

<sup>6</sup> AA Fujitsu LR6G07 Premium battery used for tests and calculations.

<sup>7</sup> AA Energizer L91 Ultimate Lithium battery used for tests and calculations.