

Aranet T/RH probe



- ① Measures temperature and relative humidity
- ② IP67 casing
- ③ Up to 3 km / 1.9 mi range
- ④ Flexibility of installation

For HVAC environmental controls, temperature monitoring systems inside buildings, equipment or machinery, process monitoring and control systems. The probe can be extended thus ensuring even more easy setup.



Aranet T/RH probe

TDSPT309 (EU)

Measures the temperature and relative humidity of the environment

TDSPT3U9 (NA)

TDSPT3R9 (RU)

Sensor performance

	Temperature	Relative Humidity
Range	-40 °C to 85 °C (-40 °F to 185 °F)	0-100 %
Resolution	0.1 °C (0.1 °F)	0.1 %
Accuracy ¹	±0.3 °C (±0.5 °F)	± 2 %
Hysteresis	N/A	± 1 %
Long-term drift	0.03 °C/year (0.05 °F/year)	0.5 %/year

Radio parameters

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

General

Ingress Protection code	IP67
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 ³	100 g (3.5 oz)
Enclosure material	ASA plastic
Included in the box	1 AA alkaline battery, polyester string

Power 1 AA battery

	Alkaline ⁴	Lithium ⁵
Type	Alkaline ⁴	Lithium ⁵
Operating temperature	-20 °C to 55 °C (-4 °F to 131 °F)	-40 °C to 60 °C (-40 °F to 140 °F)
	Battery lifetime at 20 °C (68 °F) ⁶	
TX interval	Battery lifetime at 20 °C (68 °F) ⁶	
1 minute	1.3 years	1.7 years
2 minutes	2.3 years	3.0 years
5 minutes	4.8 years	6.8 years
10 minutes	8.2 years	10+ years

Compliance

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

Aranet qualifies its T/RH sensor to work properly within ambient clean air. Qualification for use in harsh environment is the duty of the user of the sensor. Exposure to volatile organic compounds, acids or bases, etching substances such as H₂O₂, NH₃, shall be avoided.

¹ 95 % of the sensors measure within these typical limits in equilibrium state at time of sale. For evaluation of the total measurement error hysteresis and long-term drift has to be taken into account.

² Due to regulatory requirements 1 minute data transmission interval is not available in Russia.

³ Weight with alkaline AA Fujitsu LR6G07 Premium battery.

⁴ AA Fujitsu LR6G07 Premium battery used for tests and calculations.

⁵ AA Energizer L91 Ultimate Lithium battery used for tests and calculations.

⁶ Battery lifetime data has been obtained by mathematical extrapolation and is provided for descriptive purposes only and is not intended to make or imply any guarantee or warranty.