Aranet T/RH IP67 sensor



- Monitors temperature and relative humidity
- 2 IP67 casing
- 3 Up to 3 km / 1.9 mi range
- Designed for dusty and humid locations
- GORE membrane for accurate readings

Aranet T/RH IP67 Sensor measures temperature and relative humidity. The IP67 protection allows this device to operate in harsh environmental conditions. The sensor is wireless, battery-powered and ensures constant and reliable data monitoring. T/RH IP67 sensor is compatible with Aranet Cloud.

Measures the temperature and relative humidity of the environment

TDSPT8U2 (NA)
TDSPT8R2 (RU)

Sensor performance				
	Temperature	Relative Humidity		
Range	-40 °C to 60 °C (-40 °F to 140 °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		
Time constant τ (63 %) ²	8 minutes	TBD		

	00.0/	enviro	nmenta	l tem	perature		
	99 %				- 00	00000	300000
reading	90 %		0	000	00000		<u>, 50000</u>
Sensor temperature reading	63 %	0	0				
Senso	6	0					
	0	τ 1	τ	2 τ	3 τ Time	4τ	5 τ

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

General	
Ingress Protection code	IP67
Maximum operating	-40 °C to 60 °C
temperature range	(-40 °F to 140 °F)
Dimensions	Ø 35 x 120 mm
	(Ø 1.4 x 4.7 in)
Weight ⁴	69 g (2.1 oz)
Enclosure material	ASA plastic
Included in the box	1 AA alkaline battery,
	polyester string

Pov	ver	1 AA battery	
Тур	e	Alkaline ⁵	Lithium ⁶
Оре	erating	-20 °C to 55 °C	-40 °C to 60 °C
temperature		(-4 °F to 131 °F)	(-40 °F to 140 °F)
TX i	nterval	Battery lifetime a	at 20 °C (68 °F) ⁷
1	minute	1.8 years	2.3 years
2	minutes	3.4 years	4.7 years
5	minutes	6.9 years	10 years
10	minutes	10 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 H_2O_2 , NH_3 , 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 Time constant is determined at 1 m/s airflow.

 $^{^{\}scriptsize 3}$ Due to regulatory requirements 1 minute data transmission interval is not available in Russia.

⁴ Weight with alkaline AA Fujitsu LR6G07 Premium battery.

⁵ AA Fujitsu LR6G07 Premium battery used for tests and calculations.

⁶ AA Energizer L91 Ultimate Lithium battery used for tests and calculations.

⁷ 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.