

Aranet NH₃ sensor



- ① Measures ammonia concentration
- ② IP67 casing
- ③ Up to 3 km / 1.9 mi range
- ④ Up to 8.9 years of battery life

For use in laboratories, livestock and poultry farms, sewage treatment plants to monitor the leakage of ammonia gas and give an alarm to protect humans and animals

Aranet NH3 sensor

Measures ammonia concentration in the air.

TDSPG101 (EU)

TDSPG1U1 (NA)

TDSPG1R1 (RU)

Sensor performance

Range	0 - 100 ppm
Maximum overload	200 ppm
Resolution	0.1 ppm
Accuracy ¹	10 % of reading
Operating humidity range	15 – 90 % RH
Operating pressure range	800 - 1200 mbar
Maximum long-term drift	20 % / 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 50 °C (-40 °F to 122 °F)
Dimensions	Ø 43 x 147 mm (Ø 1.7 x 5.8 in)
Weight ³	93 g (3.3 oz)
Enclosure material	ASA plastic
Included in the box	1 AA alkaline battery, polyester string

Power 1 AA battery

Type	Alkaline ⁴	Lithium ⁵
Operating temperature	-20 °C to 50 °C (-4 °F to 122 °F)	-40 °C to 50 °C (-40 °F to 122 °F)
TX interval	Battery lifetime at 20 °C (68 °F) ⁶	
1 minute	1.0 years	1.3 years
2 minutes	1.9 years	2.5 years
5 minutes	4.0 years	5.4 years
10 minutes	6.2 years	8.9 years

Compliance

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

¹ Accuracy is provided at temperature +20 °C, relative humidity 50 % and absolute pressure 1013 mbar.

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.