Aranet CO_2 and Temperature sensor

aranet

1. Measures carbon dioxide concentration, atmospheric pressure and temperature

2. IP67 casing

3. Up to 3 km / 1.9 mi range

4. More than 8 years battery life

Monitoring of carbon dioxide is necessary for many industrial processes in manufacturing plants, greenhouses, storage tanks and anywhere high levels of CO_2 are generated.

Sensor performance

	CO$_2$	Temperature	Pressure
Range	0-9999 ppm	0 °C to 50 °C (32 °F to 122 °F)	300-1100 mbar
Resolution	1 ppm	0.1 °C (0.2 °F)	1 mbar
Accuracy (99 % confidence)	± 30 ppm + 3 % of reading	0.4 °C (0.7 °F)	1 mbar
τ (63 %)[1]	3 minutes	12 minutes	instantaneous

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
Data protection	XXTEA encryption
Compatible base stations	Aranet PRO

Power

	1 AA battery
Type	Alkaline[3]
Operating temperature	0 °C to 50 °C (32 °F to 122 °F)

TX interval	Battery life @ 20 °C (68 °F)
1 minute	1.3 years
2 minutes	2.5 years
5 minutes	5.3 years
10 minutes	8.4 years

General

Ingress Protection code	IP67
Maximum operating temperature range	0 °C to 50 °C (32 °F to 122 °F)
Dimensions	Ø 43 x 147 mm (Ø 1.7 x 5.8 in)
Weight[2]	93 g (3.3 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)

Aranet qualifies its CO$_2$ and Temperature Sensor to work properly within ambient clean air. Qualification for use in harsh environment is 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.

INSTRUMENT TEAM AS

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[1] Response time determined in accordance with standard VDI / VDE 3522 Part 2
[2] Weight with Alkaline AA battery Fujitsu LR6G07 Premium.
[3] AA Fujitsu LR6G07 Premium battery used for tests and calculations.