

## MULTIPLE LEVELS OF INDOOR ENVIRONMENT MONITORING



### KEY FACTS

The perfect companion for indoor environments allowing you to monitor CO2 levels, temperature, relative humidity and atmospheric pressure

#### SENSOR PERFORMANCE

<b>RANGE</b>	CO2 concentration <sup>1</sup> Temperature Relative humidity Atmospheric pressure <sup>2</sup>	0-9999ppm 0-50°C 0-85% 600-1100 hPa
<b>RESOLUTION</b>	CO2 concentration <sup>1</sup> Temperature Relative humidity Atmospheric pressure <sup>2</sup>	1ppm 0.1°C (0.1°F) 1% 1 hPa
<b>ACCURACY<sup>3</sup></b>	CO2 concentration <sup>1</sup> Temperature Relative humidity Atmospheric pressure <sup>2</sup>	±30ppm ± 3 % of reading <sup>4</sup> 0.3°C (0.5°F) ±3% -2hPa/+3hPa
<b>LONG TERM DRIFT</b>	CO2 concentration <sup>1</sup> Temperature Relative humidity Atmospheric pressure <sup>2</sup>	N/A <sup>5</sup> 0.03°C/year (0.05°F/year) 0.5 %/year 1 hPa/year
<b>TIME CONSTANT</b> $\tau$ (63 %) <sup>6</sup>	CO2 concentration <sup>1</sup> Temperature Relative humidity Atmospheric pressure <sup>2</sup>	100 seconds 10 minutes TBD Instantaneous

#### GENERAL

<b>INGRESS PROTECTION RATING</b>	IP20
<b>OPERATING TEMPERATURE RANGE</b>	0°C to 50°C (32°F to 122°F)
<b>OPERATING RELATIVE 0% TO 85 % HUMIDITY RANGE</b>	0% to 85 %
<b>DIMENSIONS</b>	70 x 70 x 24 mm
<b>WEIGHT<sup>8</sup></b>	104g (3.7 oz)
<b>FONT HEIGHT ON THE DISPLAY</b>	10mm
<b>ENCLOSURE MATERIAL</b>	Polycarbonate
<b>INCLUDED IN THE BOX</b>	2 AA alkaline batteries, configuration pin

#### BLUETOOTH PARAMETERS

<b>LINE OF SIGHT RANGE</b>	10m(33ft)
<b>TRANSMITTER POWER</b>	4 dBm or -12 dBm
<b>DATA TRANSMISSION INTERVAL</b>	1, 2, 5 or 10 minutes

#### RADIO PARAMETERS<sup>7</sup>

<b>LINE OF SIGHT RANGE</b>	3 km (1.9 mi)
<b>SUPPORTED ISM BANDS</b>	EU868, RU869 US920, AS923
<b>TRANSMITTER POWER</b>	14 dBm
<b>DATA TRANSMISSION INTERVAL</b>	1, 2, 5 or 10 minutes
<b>DATA PROTECTION</b>	XXTEA encryption
<b>COMPATIBLE BASE STATIONS</b>	Aranet PRO

#### COMPLIANCE

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

#### POWER 2 AA BATTERIES

TYPE	ALKALINE <sup>9</sup>	LITHIUM <sup>10</sup>
<b>TX interval</b>	Battery lifetime at 20°C	(68 °F) <sup>11</sup>
1 minute	0.7 years	0.9 years
2 minutes	1.2 years	1.7 years
5 minutes	2.8 years	4.0 years
10 minutes	4.8 years	7.0 years

<sup>1</sup> CO2 sensor of the device is calibrated at standard atmospheric pressure. CO2 readings are pressure compensated and comply with the specifications down to 750 hPa. If the device has to be used at high altitude for a prolonged period of time, manual calibration of the unit should be performed for optimal performance. It is not intended to use the device higher than 4000 m (13 000 ft) above the sea level.

<sup>2</sup> The device measures absolute pressure. I.e., pressure readings are not compensated for an elevation above the sea level.

<sup>3</sup> 95 % of the sensors measure within these typical limits in equilibrium state at the time of sale. For evaluation of the total measurement error long-term drift has to be taken into account.

<sup>4</sup> CO2 measurement accuracy is provided for a range 0 ... 5000 ppm, temperature 15 ... 35 °C (59 ... 95 °F) and relative humidity 0 ... 80 %. Accuracy above 5000 ppm is 10 % of reading, but not guaranteed since it is extrapolated from the calibrated range.

<sup>5</sup> If a drift of the CO2 measurements occurs, calibration feature of the device should be used. Auto calibration mode is utilizing ABC algorithm whereas Manual calibration mode demands sensor to be exposed to fresh air.

<sup>6</sup> Time constant is determined at 1 m/s airflow.

<sup>7</sup> Available only for the PRO version of the product.

<sup>8</sup> Weight with alkaline Fujitsu Premium LR6G07 AA batteries.

<sup>9</sup> Fujitsu Premium LR6G07 AA batteries used for tests and calculations.

<sup>10</sup> Energizer Ultimate Lithium LR91 AA batteries used for tests and calculations.

<sup>11</sup> With the Bluetooth connection disabled. 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.