Model *SenseAir*®
Portable Carbon Dioxide Instrument

PRODUCT DESCRIPTION

Model *SenseAir*® is a very light-weight (135 g) hand-held, pocket-sized instrument designed to measure the carbon dioxide concentration and temperature in surrounding air.

The integrated, large, clear display presents the current carbon dioxide concentration and temperature.

Built-in data logging makes *SenseAir*™ the perfect choice for monitoring the carbon dioxide concentration in a number of different applications and environments.

The carbon dioxide sensor's gold-plated infra-red waveguide and diffusion membrane filter pro-vides you great reliability, accuracy and long-term stability.

FEATURES

- State-of-the-art non-dispersive infrared (NDIR) technology to measure carbon dioxide gas in parts-per-million (ppm)

- Built in logger function with RTC (real time clock), supported by the free software UIP-P

- Displays the current carbon dioxide concentration and temperature on a large, clear, built-in LCD

- Displays the carbon dioxide level on a green-yellow-red LED bar graph

- Internal automatic self-diagnostic function

- Pocket-sized - 125 x 52 x 32 mm

- Extremely light - 135 grams

- Easy to use - just one button

- Can be customized with application set files, ie to display ventilation rate in l/s/person (or in US units)

APPLICATIONS

With a battery capacity covering more than 12 hours, its small size (125x52x32 mm) and a total weight of only 135 grams, the *SenseAir*® pocket-sized carbon dioxide instrument works perfectly for diagnosing ventilation using carbon dioxide as the surrogate ventilation index. Carbon dioxide has been acknowledged as a good indicator that adequate "fresh" outside air is being supplied to the occupants for acceptable indoor air quality. Adequate ventilation reduces temporary sickness, downtime and lost productivity.

The *SenseAir*® is also ideal for measuring carbon dioxide concentration in *incubators*, *greenhouses, mushroom farms, etc.*, where correct levels are essential for the process outcome.

Portable *SenseAir*™ *Carbon Dioxide Instrument*
Technical specification* (rev 0504)

Measurement

Operating Principle	Non-dispersive infrared (NDIR) with gold plated optical cell
Gas Sampling Mode	Diffusion
Response Time (1/e)	2 min diffusion time & 15 sec at 0.2 litre/min gas flow
Measurement Range	0-6000 ppm
Extended Range	6000-10 000ppm (accuracy not specified)
Accuracy at NTP (+25°C)	± 3 % of reading or ± 20 ppm , whichever is greater
Pressure Dependence	+ 1.6 % reading increase per kPa deviation from normal pressure
Automatic Background Calibration	Automatic Background Calibration with fresh air
	Can be done together with charging during the night.
Numerical Liquid Crystal Display	Simultaneous display of

* the current CO_2 concentration (in ppm.)
* temperature
* battery status indication
* sensor status indication
* ventilation rate (user configuration)

Temperature

Operating Principle	Termistor
Measurement Range	0-50°C
Accuracy	±0,5°C (provided that the battery charger is not connected and the unit hangs in the safety strap)

Logger and software

Digital Interface	USB cable with sensor UART-RS232 com driver
Internal Data Logger with RTC	Logging of CO_2 and temperature by 896 samples each. Logger resets in Off Mode. Real Time Clock.
PC software	Windows 95/98/NT/ME/2000/XP compatible software UIP-P to:

* define personal user preferences
* support sensor calibration
* transfer and save logged data
* view trend curves of logged data

Electrical:

Battery Charger Input	6 VDC / 700 mAh, with NOKIA type miniature connector
Internal Battery	3,6 VDC / 1350 mAh Li-ion accumulator (> 12 h. capacity)
Battery Current Consumption	< 55 mA in normal mode

General Performance:

Compliance with	EMC Directive 89/336/EEC
Storage Temperature Range	-20° to +70°C
Operating Temperature Range	0° to +50°C
Operating Humidity Range	0 to 95 % RH (non Condensing)
Sensor Life Expectancy	> 15 years
Battery Life Expectancy	> 3 years
Self-diagnostics	complete power/sensor/ internal checks
Status Indicator	LCD triangle ikon = maintenance call
Power-up Time	< 30 sec. (full specs < 15 minutes)
Housing Material	ABS/PC blend
Dimensions (L x W x D)	125 x 52 x 32 mm
Total Weight	135 g

Accessories:

Included in original purchase: monitor with internal battery, protective casing, communication cable, wall-plug battery charger

Optional accessories:	art.no.
Extra PC communication cable	A232-0740
Battery charger for use in cars (12V)	A-0741-charger
Extra wall-plug battery charger	A-0740-charger
Replacement battery	1PSC340848-1350
Extra protection casing	0741-bag

* **Can be changed without notice**
  PATENTED

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