Model SenseAir® Alarm

Portable Carbon Dioxide Alarm Unit

PRODUCT DESCRIPTION

Model SenseAir® Alarm is a very light weight hand-held, pocket-sized alarm instrument with a digital display designed to measure the carbon dioxide concentration in surrounding air.
The large, clear display presents both current carbon dioxide concentration and the 8 hours Time Weighted Average (TWA) carbon dioxide value.
The carbon dioxide sensor's gold-plated infra-red waveguide and diffusion membrane filter provide you with great reliability, accuracy and long-term stability.
Built-in data logging and alarm functions make SenseAir® Alarm the perfect choice for personal safety applications

The outer dimensions of 125x52x32 mm make SenseAir® Alarm a unique portable alarm unit

FEATURES

- State-of-the-art non-dispersive infrared (NDIR) technology to measure carbon dioxide gas in volume percent and parts-per million (ppm)
- Displays both current carbon dioxide concentration and the 8 hour TWA carbon dioxide value on large, clear, built-in LCD
- Displays hazard levels on a clear green-yellow-red 5 step LED bar graph.
- Internal audible alarm.
- Internal automatic self-diagnostic function.
- Over 12 hours of continuous operation with internal, rechargeable Li-Ion battery.
- Pocket-sized - extremely handy and light weight.
- Built in logger function, supported by the freeware UIP-P.

APPLICATIONS

With a battery capacity covering more than 12 hours, its small size (125 x 52 x 32 mm) and a total weight of only 135 grams, the SenseAir® Alarm pocket-sized carbon dioxide instrument works perfectly as a personal safety alarm unit in hazardous environments, wherever carbon dioxide is produced, stored, generated and / or used.

The LED indicators in the green-yellow-red bar graph give a quick overview of the current carbon dioxide level and the 80 dB audible alarm calls for prompt attention when the short-term exposure safety limit is exceeded.

Due to the built-in logger function, the 8 hour long-term TWA (Time Weighted Average) exposure is also monitored to check against the labour regulations hygienic exposure limit standard. Together with a communication cable (accessory) and the user interface program UIP-P (freeware), it is possible to download and work with the samples during the logged period.

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Technical specification for the portable SenseAir® Alarm CO_2

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	0-3 % vol.
Extended Range	3-10 % vol. (accuracy not specified)
Accuracy at NTP (+25° C)	± 3 % of reading or ± 0.02 % vol., whichever is greater
Pressure Dependence	+ 1.6% reading increase per kPa deviation from normal pressure
Temperature Dependence	£ 0.005 % vol. / °C at zero gas level £ 0.015 % vol. / °C at 3 % vol. CO_2
Time Weighted Average (TWA) calculation	8 h time span (most recent) with 4 min sample period Reset can be selected during unit turn-on sequence

Alarm / Measurement Interface:

LEDs	5 step "bar graph" green-green-yellow-yellow-red LEDs with trip points defined by the present CO_2 concentration and preset comparator levels.
Numerical Liquid Crystal Display	Simultaneous display of * the current CO_2 concentration (in % vol.) * the 8 h CO_2 TWA value (in % vol.) * battery status indication * sensor status indication
Audible horn	Transducer with 2kHz resonance frequency, sounding during alarm status until push-button acknowledgement is pressed
Push-button	a single multi-purpose push-button
Internal Data Logger	The latest 8 h accumulated turn-on time of recorded CO_2 concentration data is shown on display (TWA). Logged samples can be downloaded together with communication cable (accessory) and free software UIP-P.
Digital Interface	USB cable with sensor UART-RS232 com driver
PC software	UIP-P Windows 95/98/NT/ME/2000/XP compatible software to * transfer and save logger data * configure Alarm Status and LED trip point levels * define user preferences * support sensor calibration

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 < 100 mA in alarm 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

Accessories:

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

Optional accessories:	*art.no.*
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*

Made in Sweden

CE

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