

Model *pSENSE* - RH Portable Carbon Dioxide Instrument

New!

PRODUCT DESCRIPTION

Model *pSENSE* is a very flexible and easy to use hand-held, instrument designed to measure the carbon dioxide concentration, temperature and humidity in surrounding air.

The large illuminated display presents the 3 values simultaneously, as well optional Air/Wet and Bulb temp by selection.

Built-in data output (RS232) makes it simple to log data for longer time. Audible alarm, Max/Min Average as well as TWA and STEL measurements are possible.

The carbon dioxide sensor's gold-plated infra-red waveguide and diffusion membrane filter provides 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)
- Data output RS232
- Displays the current carbon dioxide temperature and RH% on a large LCD
- Displays TWA (8hours) STEL (15 minutes) Min, Max and average values
- Internal automatic self-diagnostic function
- Audible alarm
- Easy to calibrate

APPLICATIONS

With a battery capacity covering more than 24 hours, the instrument works perfectly for diagnosing ventilation using carbon dioxide as the surrogate ventilation index.

The instrument works perfect for measuring the indoor air quality parameters CO₂, Temp and RH%. 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 *pSENSE* is also ideal for measuring carbon dioxide concentration in *incubators, greenhouses, mushroom farms, etc.*, where correct levels are essential for the process outcome.

pSENSE Technical specification*

Measurement

| | |
|--|---|
| Operating Principle | Non-dispersive infrared (NDIR) with gold plated optical cell |
| Gas Sampling Mode..... | Diffusion |
| Response Time (1/e) | Approx 30 sec |
| Measurement Range | 0-3000 ppm |
| Extended Range | 3001-9999 ppm |
| Accuracy..... | ±30 ppm ±5% of reading (CO ₂) (0 ~ 3000 ppm) |
| | ±0.6 °C/±0.9 °F, ±3 % RH (at +25 °C, 10 ~ 90 %) |
| | others ± 5 % for other RH ranges |
| Warm up time | 30 seconds |
| Response time..... | about 30 seconds |
| Alarm sound level | 80 dB |
| Operating condition..... | 0° ~+50°C, 0 ~ 95 % RH (avoid condensation) for CO ₂ |
| Storage condition..... | -20° ~ +60°C |
| Power supply | AA type (UM-3) x 4 pcs |
| Battery life..... | > 10 hours |
| Standard packing includes | Meter, manual, batteries and hard carrying case |
| Optional accessories..... | Salt solution HR33, HR75%, adaptor 9V/100-240VAC, |
| | RS232 software with D-sub connector VZRS232M |
| Pressure Dependence | + 1.6 % reading increase per kPa deviation from normal pressure |
| Calibration | Manual calibration with fresh air |
| Resolution | 2 ppm – CO ₂ concentration, |
| | 0.1 °C / °F - Temperature, 0.1% RH - Humidity |
| Numerical Liquid Crystal Display | Simultaneous display of |
| | * CO ₂ concentration (in ppm.) |
| | * temperature |
| | * RH % |

Temperature

| | |
|---------------------------------|--------------------|
| Temp. range | -10 °C ~ +60 °C |
| RH range | 0 % ~ 95 % |
| DP (Dew Point Temperature)..... | - 73.4 °C ~ +60 °C |
| WB (Wet bulb Temperature)..... | - 13.3 °C ~ +60 °C |
| Measurement Range..... | 0° to +60° C |
| Accuracy..... | ±0,5° C |

Data Output

| | |
|-------------------------------|---|
| Digital Interface RS232 | Special cable |
| PC software | Windows 95/98/NT/ME/2000/XP Software and cable sold as option |

Electrical:

| | |
|-----------------------|--------------------------------------|
| External supply | Plug in transformer |
| Internal Battery..... | 4 pcs AA batteries 24 hours capacity |
| | |

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) |
| Size | 209.4L*70W*57.7H (mm) |
| Weight | about 180g (battery excluded), |
| Sensor Life Expectancy | > 15 years |
| Power-up Time | < 30 sec. (full specs < 15 minutes) |
| Housing Material..... | ABS/PC blend |



* Can be changed without notice
PATENDED

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