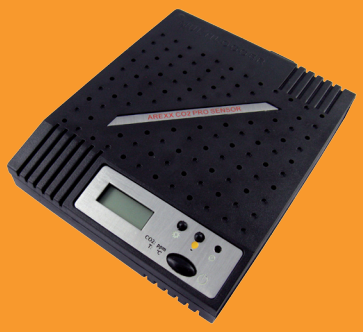
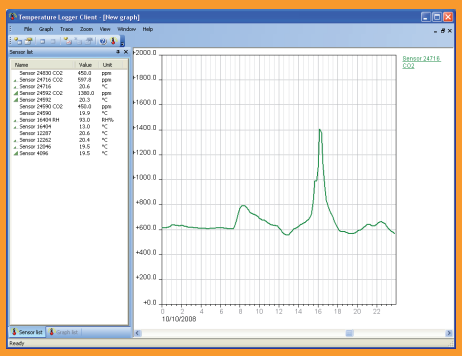
PRO-CO_2 Sensor

AREXX Engineering





For wireless USB Multilogger

CO_2-monitoring is getting more and more important nowadays. These measurements do not refer to the increased outdoor CO_2-levels, frequently discussed in public discussions. There is a growing need to check and control the indoor CO_2-levels in our perfectly isolated, but often badly ventilated living-areas such as our houses, our offices and schools, our hospitals and nursery schools.

Although the gas cannot be observed and is virtually imperceptible, CO_2 may vastly influence our performance and well-being. A high CO_2-level often results in discomfort, headaches and diminished concentration. Additionally a prolonged and frequented stay in areas with high CO2-concentration may eventually cause COPD ("Chronic Obstructive Pulmonary Disease") and allergies.

The PRO-CO_2 sensor is a wireless CO_2-monitor designed for permanent indoor monitoring the CO_2-level and temperature in combination with the AREXX Multi-logger System. The sensor features a wireless data transfer!

The AREXX Multi-logger System in combination with a set of CO_2-sensors provides a professional environment for monitoring schools, office buildings, hospitals, etc. The system will allow a janitor or a housekeeper to check the data at his desktop-computer and to initiate a ventilation of rooms if necessary!
Featuring several alarm-options, the system can be used in a stand-alone-operation and the software can even send SMS-reports as soon as measurement values exceed predefined levels. In a professional environment the system allows staff and guests to feel comfortable. Well-being requires normal CO_2-levels. Monitoring the parameters in schools and buildings will improve both performance and concentration, reducing sickness absenteeism.

Apart from the PRO-CO_2 sensor a number of other sensors is available to be attached to the Multilogger system, enabling you to design and build a complete monitoring system with exactly the required sets of sensors for your rooms.

Technical specifications:

Condition	0 - 50 Degrees Celsius and 0- to 95% RH
Dimensions (WxDxH)	125x160x22 mm

CO_2-Measurement

Measurement range:	from 400 ppm up to 2000 ppm
Accuracy:	@22°C when compared against a certified factory reference ±40 ppm + 2% reading up to 1250 ppm
Response time:	< 2 minutes after activating 10 minutes for maximum accuracy
CO2-Sensortype:	Non Dispersive Infrared (NDIR)
Lifetime for the sensor:	min. 10 years

Temperature measurement

Temperature	–30 to +80° Celsius, ± 0,5° to 1°.
Power	6 to 7 Volt DC / 1000mA
Frequency	433 MHz
Transmitting range	80 m. (Free field: 180 m.)

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