

## PolyGard® Portable Carbon Dioxide Instrument PTB82-1160

### DESCRIPTION

Portable instrument designed to measure the carbon dioxide concentration and temperature in the surrounding air. The 2 values are displayed on the large illuminated LCD simultaneously. An audible alarm is included. The integrated gold-plated sensor is based on state-of-the-art non-dispersive infrared technology. The built-in data output (RS232) makes it simple to log data. The instrument is delivered with a hard carrying case, batteries and manual.

### APPLICATION

The portable instrument is used in residential, commercial and industrial ranges for diagnosing ventilation and indoor air quality by measuring the carbon dioxide concentration. It is also applicable for measurements in incubators, greenhouses, mushroom farms, etc. where correct levels are essential.

### FEATURES

- State-of-the-art non-dispersive infrared (NDIR) technology
- Measuring range 0-2000 ppm
- Data output RS232
- Great liability, accuracy and long-term stability
- Audible alarm
- Internal battery (capacity: more than 24 hours)
- Internal automatic self-diagnostic function
- Easy calibration
- Large, clear LCD display (temperature, concentration) for simultaneous display of current CO<sub>2</sub> concentration and temperature
- Display of TWA (8 hours), STEL (15 minutes), min., max. and average values
- Pocket-sized – 209 x 70 x 58 mm
- Extremely light – about 180 g (without batteries)
- RS232 software: Windows 95/98/NT/ME/2000/XP software (option)
- Special cable for digital interface RS232 (option)
- Adaptor 9 V / 100-240 VAC (option).



## SPECIFICATIONS

<b>Electrical</b>	
External supply (option)	Plug in transformer
Internal battery	4 x AA batteries
Battery capacity	> 24 hours
<b>Gas Sensor Performance</b>	
Detected gas	CO <sub>2</sub>
Sensor element	Non-dispersive infrared sensor with gold-plated optical cell, diffusion
Measuring range	0 – 2000 ppm
Extended range	2001 – 9999 ppm (accuracy not specified)
Accuracy at NTP (25°C)	± 5% of reading or ± 75 ppm
Sensor life expectancy	> 15 years
Response time	Approx. 30 sec
Pressure dependence	+ 1,6% reading increase per kPa deviation from normal pressure
Calibration	Manual calibration with fresh air
<b>Temperature Performance</b>	<b>Sensor</b>
Measuring range	0 °C to + 60 °C
Accuracy	± 0,5 °C
<b>Logger and Software</b>	
Digital interface	Special cable RS232 (option)
PC software	Windows 95/98/NT/ME/2000/XP software (option)
<b>Operating Environment</b>	
Humidity range	0 – 95 % RH non-condensing
Working temperature	0 °C to + 50 °C
Storage temperature	- 20 °C to + 70 °C
<b>Visualisation</b>	
Numerical Liquid Crystal Display	LCD
Operation	6 push-buttons
Alarm sound level	80 dB
<b>General performance</b>	
Self-diagnostics	Complete power/sensor/internal checks
Power-up time	< 30 sec. (full specs < 15 minutes)
Enclosure material	ABS/PC blend
Dimensions (H x W x D)	209 x 70 x 58 (mm)
Weight	Approx. 180 g
<b>Approvals/Listings</b>	
	EMC Directive 89/336/EEC
<b>Warranty</b>	1 year/material

## ORDERING INFORMATION

PTB82-1160-XXXXX

Options	
1XXXX	Special cable for RS232
X1XXX	RS232 Software
XX1XX	Adapter 9 V / 100-240 VAC

**Example:** PolyGard Portable CO<sub>2</sub> Instrument

**Ordering Number:** PTB82-1160-00000