



**TRANSCAT**

Visit us at [Transcat.com!](http://Transcat.com)

35 Vantage Point Drive // Rochester, NY 14624 // Call 1.800.800.5001



Safety & Specialty Products

## CO<sub>2</sub> Portable Gas Analyzers Model 3100 and 3150



Bacharach's new Carbon Dioxide (CO<sub>2</sub>) Portable Gas Analyzer series is available in two models. Based on one common platform, the two models have new and improved operating software, the latest battery technology, USB data communications and flexible sensor options. In addition to CO<sub>2</sub> infrared-based detection and measurement, each model offers optional sensors including oxygen, temperature and relative humidity. Infrared sensor technology is ideal for carbon dioxide detection as it offers accurate, reliable measurement with low maintenance costs.

**Model 3100**, equipped with a high-range CO<sub>2</sub> IR sensor measuring 0–20%, is designed to be compatible with medical/ incubator applications, laboratory use and the agriculture industry. For applications requiring measurements in the 0-10,000 parts-per-million (ppm) range, **Model 3150** is ideal for indoor air quality measurements, ventilation verification and process operations.

Features of the new CO<sub>2</sub> Models 3100 and 3150 include the following:

- Both models have 3 basic versions:
  - CO<sub>2</sub> only
  - CO<sub>2</sub> with Oxygen
  - CO<sub>2</sub>/Oxygen and Relative Humidity (RH)
- All versions have optional add-ons:
  - Temperature probes
  - Data download kit
- Improved menu-driven software with intuitive operation and interactive screen prompts
- Large data storage – 1,000 data set capacity with optional USB download software kit
- High-capacity lithium-ion battery for up to 10 hours of runtime
- Ergonomically designed case with integral stand and rubber sides for robustness



## Features and Benefits of Models 3100 & 3150

- Stable infrared (IR) CO<sub>2</sub> sensor provides better accuracy
- Internal pump draws 100cc/minute for fast response
- Large backlit LCD display with graphic icons is easy-to-read in any lighting condition
- Improved keypad with full numeric keys saves time
- User-adjustable settings for alarm and calibration setpoints via keypad (no PC required)
- User-ID code setting for security and record-keeping
- Large data storage of 1,000 readings and 275 events viewable on screen
- User-friendly software and USB data download for data graphing and trend analysis (optional kit)
- Integrated Nafion tube for humidity reduction of sample gas ensures stable readings
- Continuous long-term operations using power supply
- All models have 2 temperature probe ports for T1-T2 calculation

## Ordering Information\*

### Model 3100 CO<sub>2</sub> Analyzer (0-20%)

19-7076	CO <sub>2</sub> , Pressure, Pump
19-7077	CO <sub>2</sub> (0-20%), O <sub>2</sub> , Pressure, Pump
19-7078	CO <sub>2</sub> , O <sub>2</sub> , Pressure, RH (w/probe & cable), Pump

### Model 3150 CO<sub>2</sub> Analyzer (0-10,000 PPM)

19-7136	CO <sub>2</sub> , Pressure, Pump
19-7137	CO <sub>2</sub> , O <sub>2</sub> , Pressure, Pump
19-7138	CO <sub>2</sub> , O <sub>2</sub> , Pressure, RH (w/probe & cable), Pump

### Accessories and Replacement Parts

19-0611	Temperature Probe (5 mm tip)
19-0612	Spare Filters (pk/5)
19-0613	Spare Sample Tubing w/filter
19-0614	Data Downloading Kit w/ USB cable & software
19-8027	Regulator Kit (no gas)
24-1126	5% CO <sub>2</sub> Calibration Gas (17l)
23-4003	100% N <sub>2</sub> Calibration Gas (17l)

Instrument comes with: Sensor options as ordered, battery (installed), charger (120-230 VAC), sample tubing line (1 m), dust filter, operating instructions on DVD.

\* NOTE: RH Option must be chosen at the time of order. Comes with RH probe.

Specifications	CO <sub>2</sub> Portable Gas Analyzer Model 3100	CO <sub>2</sub> Portable Gas Analyzer Model 3150
<b>Gases Measured</b>	CO <sub>2</sub> , O <sub>2</sub> (Optional)	CO <sub>2</sub> , O <sub>2</sub> (Optional)
<b>Range/Resolution</b>		
CO <sub>2</sub>	0-20% / 0.1% increments	0-10,000 ppm / 5 ppm increments
O <sub>2</sub>	0-100% / 0.1% increments	0-100% / 0.1% increments
<b>Response Time</b>		
CO <sub>2</sub>	T90 ≤20 seconds	T90 ≤20 seconds
O <sub>2</sub>	T90 ≤60 seconds	T90 ≤60 seconds
<b>Accuracy</b>		
CO <sub>2</sub>	± 1% range (+2% of reading) ±1.0% Full Scale	± 1.5% of range (+2% of reading) ± 1.0% Full Scale
O <sub>2</sub>	@ constant temp. & pressure ± 2.0% Full Scale over operating temp. range	@ constant temp. and pressure ± 2.0% Full Scale over operating temp. range
<b>Other Measurements</b>		
<b>Temperature (Optional)</b>	Up to 2 readings using optional probes 32 °F to +122 °F (0-50 °C)	Up to 2 readings using optional probes 32 °F to +122 °F (0-50 °C)
<b>RH Measurement (Optional*)</b>	RH Probe 0-100% RH non-condensing	RH Probe 0-100% RH non-condensing
<b>Other Specifications</b>		
<b>Operating Temperature Range</b>	41°F-104°F (5°C-40°C)	41°F-104°F (5°C-40°C)
<b>Humidity Range</b>	0-95% non condensing (RH Probe 0-100% non condensing)	0-95% non condensing (RH Probe 0-100% non condensing)
<b>Dimensions</b>	L 6 1/2" x W 4" x D 2 3/16" (16.5 cm x 10 cm x 5.5 cm)	L 6 1/2" x W 4" x D 2 3/16" (16.5 cm x 10 cm x 5.5 cm)
<b>Weight</b>	18 oz (495 g)	18 oz (495 g)
<b>Power Source</b>	Li-Ion (Lithium Ion) Rechargeable Battery	Li-Ion (Lithium Ion) Rechargeable Battery
<b>Runtime</b>	10 Hours (8 hours with pump running)	10 Hours (8 hours with pump running)
<b>Charger</b>	Universal AC Charger (120-240 VAC)	Universal AC Charger (120-240 VAC)
<b>Charge Time</b>	3 Hours	3 Hours
<b>Alternative Power</b>	USB connector to PC (power only)	USB connector to PC (power only)
<b>Pump Flow</b>	100cc/min typically	100cc/min typically
<b>Data Storage</b>	1000 readings + 270 events	1000 readings + 270 events
<b>Data Download (Optional)</b>	USB type B mini-connector, HID device class	USB type B mini-connector, HID device class
<b>Warranty</b>		
<b>Instrument</b>	1 year	1 year
<b>Sensor (CO<sub>2</sub>)</b>	3 years (excluding cell contamination)	3 years (excluding cell contamination)

\* NOTE: RH Option must be chosen at the time of order. Comes with RH probe.

## Distributed By:

# TRANSCAT®

▶ Visit us at [Transcat.com!](http://Transcat.com!)

35 Vantage Point Drive // Rochester, NY 14624 // Call 1.800.800.5001

**BACHARACH**  
The Measurable Difference

Bacharach is a registered trademark of Bacharach, Inc.  
© Product Bulletin 6002 2009, Bacharach, Inc., all rights reserved. All information is subject to verification.  
2009 - REV. 0 Printed in U.S.A.

TUV  
MANAGEMENT SERVICE  
ISO 9001:2000