Safety & Specialty Products

CO_2 Portable Gas Analyzers
Model 3100 and 3150

Bacharach's new Carbon Dioxide (CO_2) 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_2 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_2 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_2 Models 3100 and 3150 include the following:

- Both models have 3 basic versions:
  - CO_2 only
  - CO_2 with Oxygen
  - CO_2/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_2 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_2 Analyzer (0-20%)	
19-7076	CO_2, Pressure, Pump
19-7077	CO_2 (0-20%), O_2, Pressure, Pump
19-7078	CO_2, O_2, Pressure, RH (w/probe & cable), Pump
Model 3150 CO_2 Analyzer (0-10,000 PPM)	
19-7136	CO_2, Pressure, Pump
19-7137	CO_2, O_2, Pressure, Pump
19-7138	CO_2, O_2, 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_2 Calibration Gas (17l)
23-4003	100% N_2 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

Specifications	CO_2 Portable Gas Analyzer Model 3100	CO_2 Portable Gas Analyzer Model 3150
Gases Measured	CO_2, O_2 (Optional)	CO_2, O_2 (Optional)
Range/Resolution		
CO_2	0–20% / 0.1% increments	0-10,000 ppm / 5 ppm increments
O_2	0–100% / 0.1% increments	0-100% / 0.1% increments
Response Time		
CO_2	T90 ≤20 seconds	T90 ≤20 seconds
O_2	T90 ≤60 seconds	T90 ≤60 seconds
Accuracy		
CO_2	± 1% range (+2% of reading)	±1.5% of range (+2% of reading)
O_2	±1.0% Full Scale @ constant temp. & pressure ± 2.0% Full Scale over operating temp. range	±1.0% Full Scale @ constant temp. and pressure ± 2.0% Full Scale over operating temp. range
Other Measurements		
Temperature (Optional)	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)
RH Measurement (Optional*)	RH Probe 0–100% RH non-condensing	RH Probe 0-100% RH non-condensing
Other Specifications		
Operating Temperature Range	41°F–104°F (5°C–40°C)	41°F–104°F (5°C–40°C)
Humidity Range	0–95% non condensing (RH Probe 0–100% non condensing)	0–95% non condensing (RH Probe 0–100% non condensing)
Dimensions	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)
Weight	18 oz (495 g)	18 oz (495 g)
Power Source	Li-Ion (Lithium Ion) Rechargeable Battery	Li-Ion (Lithium Ion) Rechargeable Battery
Runtime	10 Hours (8 hours with pump running)	10 Hours (8 hours with pump running)
Charger	Universal AC Charger (120-240 VAC)	Universal AC Charger (120-240 VAC)
Charge Time	3 Hours	3 Hours
Alternative Power	USB connector to PC (power only)	USB connector to PC (power only)
Pump Flow	100cc/min typically	100cc/min typically
Data Storage	1000 readings + 270 events	1000 readings + 270 events
Data Download (Optional)	USB type B mini-connector, HID device class	USB type B mini-connector, HID device class
Warranty		
Instrument	1 year	1 year
Sensor (CO_2)	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.

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