# G110

$CO_2$   $CO_2$   $O_2^+$

# DIAMOND SCIENTIFIC

## $CO_2$ ANALYSER | SPECIALIST CONTROLLED ATMOSPHERE MONITORING

$CO_2$ analyser designed to monitor $CO_2$ for multiple applications, including Brewing industry. This unit has been developed to incorporate the latest technology and specification requirements, that provide the user with a fast, simple to use analyser.

### FEATURES

- $CO_2$ 0 - 100%
- Options for:
  - $O_2$ 0 - 100%
  - Dual temperature probes 0 to 50°C
  - Data storage and download
  - Humidity Sensor 0 - 100%

### BENEFITS

- Accurate $CO_2$ readings
- Quick verification of $CO_2$ levels
- Time saving with dual temperature probes
- Large data storage and user friendly software and download
- Easy to read large well lit display
- Built in gas moisture removal

### SECTOR

$CO_2$ monitoring

### APPLICATIONS

- Food Processing
- Research
- Brewing
- Medical

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# TECHNICAL SPECIFICATIONS

| POWER SUPPLY | |
|---|---|
| Battery type | Li Ion |
| Battery life | 12 hours (10 hours with pump) |
| Battery lifetime | 600 cycles |
| Battery charger | 5v DC external power supply and internal charging circuit |
| Charge time | 4 hours |
| Alternative power | 5Vdc power supply |

| GAS RANGES | | |
|---|---|---|
| Gases measured | $CO_2$ | By custom dual wavelength infra-red cell with reference channel |
| | $O_2$ (optional) | By internal electrochemical cell |
| Oxygen cell lifetime | Approximately 3 years in air | |
| Range | $CO_2$ | 0 - 100% |
| | $O_2$ | 0 - 100% |
| Measurement accuracy* | $CO_2$ | ± 1% of range after calibration |
| | $O_2$ | ± 1% of range after calibration |
| Response time, $T^{90}$ | $CO_2$ | ≤ 20 seconds |
| | $O_2$ | ≤ 60 seconds |
| *Plus accuracy of calibration gas used | | |

| FACILITIES | |
|---|---|
| Temperature (optional) | x2 using optional probes, range 0°C to +50°C |
| Temperature accuracy | ± 0.2°C |
| Barometric pressure | 800- 1200 mbar |
| RH measurement (optional) | RH Probe 0 - 100% RH non condensing |
| RH accuracy | ± 1.5% RH across the range |
| Visual and audible alarms | User selectable $CO_2$ and $O_2$ alarm levels |
| Communications | USB type B mini-connector, HID device class |
| Data storage | 1000 reading sets + 270 events |

| PUMP | |
|---|---|
| Flow | 100cc / min typically |

| ENVIRONMENTAL CONDITIONS | |
|---|---|
| Operating temperature | 0°C to 50°C |
| Relative humidity | 0 - 95% non condensing |
| Barometric pressure | ± 500 mbar from calibration pressure |
| IP rating | IP40 |

| PHYSICAL | |
|---|---|
| Weight | 495 grams |
| Size | L: 165mm, W: 100mm, D: 55mm |
| Case material | ABS / Polypropylene with Silicone Rubber inserts |
| Keys | 17 Resin capped silicone rubber keys |
| Display | Liquid crystal display, 128 x 64 pixels |
| | With RGB LED back-light |
| Gas sample filters | Built-in gas dryer tube to remove moisture |
| | User replaceable PTFE water trap filter |
| Note: Due to Geotech's continuous programme of improvement, this specification is subject to change without prior notice | |

| CERTIFICATION | |
|---|---|
| EN 50270 : 2006 | Electromagnetic compatibility- Electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen |
| EN 61010-1 : 2010 | Safety requirements for electrical equipment for measurement, control, and laboratory use. Part 1: General requirements |

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