



Compressed air quality  
diving applications

## Diveair2

The Diveair2 is used to measure composition of compressed air used to fill gas cylinders for underwater operations. It can also measure possible contaminations due to carbon monoxide and VOCs. Offering real time feedback on air quality, this instrument removes the need to send samples for laboratory analysis.

### Benefits

- Portable and robust construction
- Can be used 'in line' allowing continuous monitoring
- All gases viewed on one screen
- On site user calibration
- Fast on site readings - no need to send samples away

### Features

- Measures CO<sub>2</sub> 0 - 5000ppm
- Peak gas readings
- Data storage and download
- Visual alarms on all gases
- O<sub>2</sub> 0-21% calibrated, 0-100% reading
- CO 0-50ppm
- VOC 0-20ppm

### Applications

- Naval diving teams
- Diving schools
- Emergency services



## Technical Specifications

### Diveair2

#### POWER SUPPLY

Battery type	Rechargeable nickel metal hydride battery pack containing six 4AH cells (not user replaceable)
Battery life	Typical use 10 hours from fully charged
Battery lifetime	Up to 1000 charge/ discharge cycles
Battery charger	Seperate intelligent 2A battery charge powered by mains supply (100-240V 47-63Hz)
Charge time	Approximately 3 hours from complete discharge
Memory back up battery	NiMH for data retention

#### GAS RANGES

Gases measured	CO <sub>2</sub> VOC O <sub>2</sub> CO	By dual wave length infra-red cell Photoionisation detector By internal electrochemical cell By internal electrochemical cell
Range	CO CO <sub>2</sub> O <sub>2</sub> VOC	0-50ppm 0-5000ppm 0-21% calibrated. Will read 0-100% 0-20ppm isobutylene equivalent
Typical accuracy (measured over temperature range within 8 hours of calibration)	Gas CO CO <sub>2</sub> O <sub>2</sub> VOC	±20% of reading or ±3ppm - whichever is greater ±20% of reading or ±250ppm - whichever is greater ±4% of reading or ±1% by volume - whichever is greater ±20% of reading or ±2ppm - whichever is greater
Response time, T <sup>90</sup>	CO CO <sub>2</sub> O <sub>2</sub> VOC	≤20 seconds Approximately 60 seconds Approximately 40 seconds ≤40 seconds

#### FACILITIES

Communications	RS232 protocol
Calibration frequency	Return to manufacturer for full service and calibration - 18 month interval
VOC monitoring	The Diveair will detect all VOC's with an ionisation potential less than 10.6eV
Available memory	600 data sets can be stored

#### PUMP

Flow	350cc/min typically
Vacuum	Maximum 400 mbar
Type	DC motor, diaphragm

## Related products

### HB1.2 Hyperbaric analyser



Portable analyser that measures CO<sub>2</sub> and O<sub>2</sub> under hyperbaric conditions up to 6 bar absolute.

## Technical Specifications

### Diveair2, cont'd.

#### ENVIRONMENTAL CONDITIONS

Operating temperature range	0°C to 50°C
Relative humidity	0 - 95% non condensing (ambient)
Case seal	IP55

#### PHYSICAL

Weight	2.8 kg
Size	Height 240mm, Width 270mm, Depth 125mm
Case material	Polypropylene
Keys	Membrane panel
Display	<ul style="list-style-type: none"> <li>• Liquid crystal display, 120 x 32 pixels</li> <li>• Built in temperature compensation</li> <li>• Fibre optic woven back-light for low light conditions</li> </ul>
Filters	Inlet - dust filter ( operator changeable) Internal - 0.2µm PTFE hydrophonic filter (non field changeable) proprietary VOC filter (non field changeable)

Due to Geotech's continuous programme of improvement, this specification is subject to change without prior notice.