

압력 챔버용 공기 측정기



Model : HYPERBARIC

용 도(Applications)

- 압력 챔버 중의 CO₂, O₂ 및 압력 측정
- 각종 가압 챔버 및 감압 챔버의 공기질 측정
- 잠수함 내의 공기질 측정
- 잠수용 호흡기체의 공기질 측정

특 징(Features)

- IP65의 방진 및 방수 등급
- 알람 및 경고 표시 기능
- 미 해군실험 다이빙 유닛(NEDU) 승인제품
- 0.75~10 bar 의 압력조건에서도 측정 가능
- 24시간 이상의 충전식 배터리 장착

사 양(Specifications)

| 측정 항목 | 측정 범위 | 센서타입 |
|-----------------|------------------|---------------------------|
| CO ₂ | 0-30,000ppm SEV* | Dual wavelength infra-red |
| O ₂ | 0-250% SEV | Electrochemical |
| Pressure | 0.75 ~ 10 bar | - |

* SEV(대기압 환산농도, Surface equivalent value) : 기체의 용량농도 (% , ppm)에 환경압력(절대압력)을 곱한 값

GAS RANGES

| | | | | |
|----------------------|--------------------------------|---|-----------------------------------|-----------------------------|
| Gases measured | CO2 O2 | By custom dual wavelength infra-red including reference channel By electrochemical cell | | |
| Oxygen cell lifetime | Approximately 18 months in air | | | |
| | Cell | Range | Typical accuracy | Repeatability |
| Gas ranges | CO2 O2 | 0-30,000ppm SEV 0-250% SEV | ±10% of reading ±5% of reading | ±1% of reading ±0.2% vol |
| Units of measurement | CO2 O2 | ppm SEV (surface equivalent value) User selectable - %vol (volume) or ppATA (partial pressure) | | |
| Resolution | CO2 O2 | 10ppm 0.1% vol | | |
| Response time (T90) | CO2 O2 | ≤20 seconds ≤40 seconds | | |

PRESSURE MEASUREMENT

| | |
|-----------------------|---|
| Units of measurement | User selectable – mbar (millibar), atm (atmospheres), fsw (feet of sea water) |
| Typical accuracy | ±2% of reading |
| Repeatability | ±1% of reading |
| Resolution | 1 mbar |
| Pressure compensation | Oxygen gas reading can be compensated in real time |

PUMP

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|------------------------|---|
| Type | Diaphragm fitted with brushless motor |
| Flow | Approx. 300 ml/min |
| Flow fail point | User selectable – -200 to -400mbar vacuum |
| Maximum vacuum restart | -400 mbar maximum |

POWER SUPPLY

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|-------------------|--|
| Battery type | Rechargeable nickel metal hydride battery pack (not user replaceable) |
| Battery life | Up to 24 hours |
| Battery lifetime | Minimum 1000 charge cycles |
| Battery charging | 28Vdc external power supply and internal charging circuit. Compatible with 100-240Vac supplies |
| Charge time | Approximately 3 hours |
| Alternative power | 28Vdc power supply if used with additional custom-made lead |

FACILITIES

| | |
|------------------|--|
| Display | Large, easy to read, backlit, LCD display |
| Alarms | User selectable alarms for CO ₂ , O ₂ , and pressure that provide a visual and audible indicator to the user |
| Available memory | 1100 readings and 450 events |
| Communications | USB via a custom waterproof connector |
| Software | Analyser Data Manager software available for download of instrument readings and viewing of the instrument event log |

ENVIRONMENTAL CONDITIONS

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|-----------------------|--------------------------------|
| Operating temperature | 0°C to +50°C (32°F to 122°F) |
| Storage temperature | -10°C to +60°C (14°F to 140°F) |
| Pressure range | 0.75 to 10 bar absolute |
| Relative humidity | 0 to 100% non-condensing |
| IP rating | IP65 |

PHYSICAL

| | |
|---------------|---|
| Weight | 1.5kg approx. (3.3lb) |
| Size | L 235mm, W 230mm, D 55mm (L 9.5", W 9", D 2.25") |
| Case material | ABS plastic |
| Keys | Numeric keypad with 'tactile' membrane |
| Display | 320 x 240 pixels, white LED backlight |
| Filters | Inlet, outlet, and vent are all user-replaceable 1.0µm PTFE filters |

CONFIGURATIONS

| | |
|---------------------|------|
| HYPERBARIC Analyser | 1 ea |
| Power supply | 1 ea |
| Soft carry case | 1 ea |
| Sample tubes kit | 1 ea |
| Manual | 1 ea |