

바이오메탄 분석기 (BIOMETHANE Analyser)



Model : BIOMETHANE 3000

용도

- CH₄, CO₂, O₂ 기본 측정 및 옵션으로 H₂S, H₂, CO 등 최대 4가지 가스 측정
- 바이오메탄 농도 측정
- 바이오가스 Upgrading

특징

- CH₄ 농도 90 ~ 100% 구간의 측정 정확도 향상
- O₂ 농도 1 ~ 2% 미만의 측정 정확도 향상
- 각 가스 별 아날로그 출력 및 Modbus 통신
- 국제방폭인증 및 유럽방폭인증 제품으로 안정성 강화

SPECIFICATIONS

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| Gases to be monitored | 기본구성 - CH ₄ , CO ₂ , O ₂ / 추가 구성 - H ₂ S, CO, H ₂ |
| Operating Temperature range | -20°C ~ +50°C |
| Mains power | 110 ~ 230 VAC 50/60 Hz, 155W Max |
| Power Backup memory | Lithium manganese dioxide backup battery for memory retention |
| Gases Measured | CH ₄ , CO ₂ O ₂ H ₂ S, CO, H ₂ |
| | By dual wavelength infrared cell with reference channel By internal electrochemical cell By external electrochemical cell |

| Cell | Range | Typical accuracy (range : accuracy) | | |
|------------------|------------------|-------------------------------------|-----------------------|---------------------------------------|
| CH ₄ | 0-100% | 0-100% : ±0.5% (vol) | | |
| CO ₂ | 0-100% | 0-60% : ±0.5% (vol) | 60-100% : ±1.5% (vol) | |
| O ₂ | 0-25% | 0-1% : ±0.05% (vol) | 1-2% : ±0.10% (vol) | 2-25% : ±1.0% (vol) |
| Cell | Range | Typical accuracy (range : accuracy) | | |
| | | Module cell | | System cell |
| H ₂ S | 0-50 ppm | ±1.5% FS | | ±1.5% FS |
| | 0-200 ppm | ±2.0% FS | | ±1.5% FS |
| | 0-500, 1,000 ppm | ±2.0% FS | | ±2.0% FS |
| | 0-5,000 ppm | ±2.0% FS | | ±100ppm or 5% of reading (if greater) |
| | 0-10,000 ppm | ±5.0% FS | | ±200ppm or 5% of reading (if greater) |
| CO | 0-1,000 ppm | ±2.0% FS | | ±3.0% FS |
| H ₂ | 0-1,000 ppm | ±2.5% FS | | ±1.5% |

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|--------------------------|---|--|---|----------------------------|
| Response Time, T90 | CH ₄ , CO ₂ , O ₂ | ≤10 seconds | CO H ₂ | ≤30 seconds ≤90 seconds |
| | H ₂ S | 0-50 ppm 0-200, 500, 1,000 ppm 0-5,000, 10,000 ppm | ≤30 seconds ≤35 seconds ≤40 seconds | |
| Cells Lifetime | CH ₄ , CO ₂ 는 반영구적으로 사용 O ₂ cell is 3 years in air, all other cells 2 years in air | | | |
| Flow | 300 ml/min typically | | | |
| Flow-Fail Point | Flow rate less than 75ml/min or vacuum greater than 350mbar | | | |
| Maximum Vacuum Restart | -375 mbar | | | |
| Output Channels | . Up to six analogue 4-20mA output channels that are user configurable for current sink or source inputs plus Modbus RTU over RS-485 . optional profibus, Profint or Ethernet module | | | |
| Alarm notifications | . 1 x fault relay . 7 x user-configurable alarms | | | |
| Relay outputs | Single pole changeover 6A 24Vdc relay volt free | | | |
| Operating pressures | -350 mbar to +350 mbar | | | |
| IP rating | IP65 | | | |
| Humidity | 0-95% non-condensing humidity | | | |
| Size | 650 x 600 x 210mm (고정형 브라켓 포함) | | | |
| Weight | 36.5 kg (고정형 브라켓 포함) | | | |
| Enclosure | Stainless steel, 600 x 600 x 210mm, IP65 rated | | | |
| Operation keys | Alpha-numeric keypad with 'tactile' membrane | | | |
| Display | 480 x 272 pixel RGB TFT display, 96mm x 55mm | | | |
| Moisture removal filters | User replaceable microfibre filter and 2.0µm PTEF water traps | | | |
| Heater | 100W mains powered ATEX certified heater for 110V or 230V mains supply | | | |
| ISO17025 | Calibrated under UKAS accreditation (certificate number 4533) | | | |
| ATEX / IECEx marking | II 3G Ex nA nC IIA T1 Gc (-20°C ≤ Ta ≤ +50°C) | | | |

CONFIGURATIONS

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| BIOMETHANE Detector | 1 ea |
| Pretreatment gas conditioning | 1 ea |
| 4-20mA outputs for each gas | 1 ea |
| IP65 rated weather-proof enclosure | 1 ea |
| Operating manual | 1 ea |

RECOMMENDED ACCESSORIES

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| Coalescent filter for catchpot, 5/pk | 1 pk |
| In-Line Water Trap Elements, 10/pk | 1 pk |