

CH₄, CO₂, O₂, H₂S, NH₃, CO 측정기 (BIO Gas Analyzer)



Model : Biogas 5000

용 도(Applications)

- 바이오가스 중 CH₄, CO₂, O₂, H₂S, NH₃, CO 측정
- 유기성 폐기물 에너지화 시설의 가스 측정
- 하수처리장 및 혐기성 소화 공정의 가스 측정
- 음식물 처리, 축산 분뇨 처리 공정의 가스 측정
- 미생물 발효 장치의 메탄 가스 측정
- 매립지 가스 측정

특 징(Features)

- 최고의 측정 정밀도 ($\pm 0.5\%$) 및 응답시간 (≤ 10)
- 밝은 햇빛 아래에도 선명한 화면 구현 (4.3" TFT)
- 크기와 중량을 25% 이상 줄여 간편한 휴대 가능
- CH₄, CO₂의 최대값, 기압, 유속, 유량 및 온도 측정 가능
- 자기 진단 및 퍼지 기능으로 최적의 측정조건 유지
- 사용자 설정 가능한 데이터 저장 및 profiling 기능
- 국제방폭인증(IECEx) 및 유럽방폭인증(ATEX) 획득 제품으로 최고 수준의 안전성

SPECIFICATIONS

GAS RANGES

	Range	Accuracy			
CH ₄	0 - 100%	0~70%	$\pm 0.5\%$	70~100%	$\pm 1.5\%$
CO ₂	0 - 100%	0~60%	$\pm 0.5\%$	60~100%	$\pm 1.5\%$
O ₂	0 -25%	0~25%	$\pm 1.0\%$		
H ₂ S	0 - 50ppm, 200ppm, 500ppm, 1,000ppm, 5,000ppm, 10,000ppm		0 - 50ppm 0 - 5,000ppm	$\pm 1.5\%FS$ $\pm 2.0\%FS$	
CO	0 - 500ppm, 1,000ppm, 2,000ppm	$\pm 2.0\%FS$			
	NH ₃ (1,000ppm/ $\pm 10.0\%FS$), H ₂ (1,000ppm/ $\pm 2.5\%FS$)				
Response time, T90	CH ₄ , CO ₂	≤ 10 seconds	/	H ₂ S	≤ 30 seconds

Gases measured	CO ₂ and CH ₄ O ₂ and H ₂ S	By dual wavelength infrared sensor with reference channel By internal electrochemical sensor
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ENVIRONMENTAL CONDITIONS

Operating temperature range	-10°C to +50°C
Atmospheric pressure range	700 to 1200 mbar
Relative humidity	0-95% non condensing

Case seal	IP65
PHYSICAL	
Size / Weight	L 220mm, W 155mm, D 60mm / 1.6kg
Case material	ABS / polypropylene with rubber over-moulding
Keys	Alpha-numeric keypad with "tactile" membrane
Display	Ultra-clear high resolution 4.3" full colour TFT
Connections	Colour coded gas inlet, outlet and pressure ports. Waterproof USB port, anemometer and charger / temperature probe connections.
Gas sample filter	External user changeable 2.0µm ptfе water traps.
PUMP	550 ml/min typically

FACILITIES	
Temperature measurement	-10°C to +75°C with optional probe (±0.5 °C)
Flow measurement	Via Pitot tube, orifice plate, or anemometer
Alarm	User selectable alarms
Communications	Via USB lead or wireless Bluetooth
Relative pressure	±250 mbar (±4 mbar)
Barometric pressure	500 to 1500 mbar, ±5 mbar accuracy
Available memory	10 IDs*, 500 readings
Data logging	User selectable Data logging and profiling function

POWER SUPPLY	
Battery type	Rechargeable nickel metal hydride battery pack (not user replaceable)
Battery life	Typical use 8 hours from fully charged (Charge time 4hr)

CERTIFICATION RATING	
ATEX	II 2G Ex ib IIA T1 Gb (Ta = -10°C to +50°C)
MCERTS	MC/130240
ISO17025	Calibration to UKAS certificate number 4533
CSA	Ex ib IIA T1 (Ta= -10°C to +50°C) (Canada) AEx ib IIA T1 (Ta= -10°C to +50°C) (USA)

CONFIGURATIONS	
BIOGAS 5000 analyzer	1 ea
Sample tubes	1 ea
In-line water trap and battery charger	1 ea
Data Logging Software(Basic)	1 ea
Manual	1 ea
Hard Carry Case	1 ea

RECOMMENDED SPARE PARTS	
Soft Carry Case	1 ea