

바이오가스 모니터링 시스템 (BIOGAS Monitoring System)



Model : BIOGAS3000

용도	특징
<ul style="list-style-type: none"> • 바이오 가스 중 CH₄, CO₂, O₂ 기본 측정 및 옵션으로 H₂S, H₂, CO 등 최대 5가지 가스 측정 • 하수처리장, 음식물 자원화 시설의 가스 모니터링 • 매립지 가스, 유기성 폐기물 자원화 시설 가스 측정 • 미생물 발효 장치의 메탄 가스 측정 	<ul style="list-style-type: none"> • 측정기 1대로 최대 4개소의 가스 측정 • 뛰어난 성능 및 모듈화로 사후관리 용이함 • 각 가스 별 아나로그 출력 (4-20mA 또는 0~5V) • 국제방폭인증 및 유럽방폭인증 제품으로 안정성 강화

SPECIFICATIONS

Gases To Be monitored	기본구성 - CH ₄ , CO ₂ , O ₂ / 추가 구성 - H ₂ S, CO, H ₂	
Reading Intervals	측정 및 작동시간 및 주기 사용자 선택 가능	
Operating Temperature range	0°C to +50°C without heater -20°C to +50°C with heater	
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 internal or external electrochemical cell

	Cell	Range	Typical accuracy (range : accuracy)		
			Internal accuracy	External accuracy	
Range	CH ₄	0-100%	0-70% : ±0.5% (vol)	70-100% : ±1.5% (vol)	
	CO ₂	0-100%	0-60% : ±0.5% (vol)	60-100% : ±1.5% (vol)	
	O ₂	0-25%	0-25% : ±1.0% (vol)		
	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	
		0-10,000 ppm	±5.0% FS	±200ppm or 5% of reading	
		CO	0-1,000 ppm	±2.0% FS	±3.0% FS
		H ₂	0-1,000 ppm	±2.5% FS	±1.5%

Response Time, T90	CH ₄ CO ₂ O ₂	≤10 seconds ≤10 seconds ≤20 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 digital output. - optional profibus module
Alarm notifications	- 1 x fault relay - 7 x user-configurable alarms that can trigger a relay when above or below a set value. - In addition, one can be used to indicate to the operator when the catchpot is full and requires emptying.
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	Ultra-clear high resolution 4.3" full colour TFT
Moisture removal filters	User replaceable microfibre filter and 2.0µm ptfе water traps
Heater option	Optional 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

Biogas 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

Coalescent filter for catchpot, 5/pk	1 pk
In-Line Water Trap Elements, 10/pk	1 pk
Calibration Gas (CH ₄ 60%, CO ₂ 40%)	1 ea
Fine control Valve	1 ea