

GAS 3200P+ Series Portable Analyser for BIOGAS or BIO-METHANE

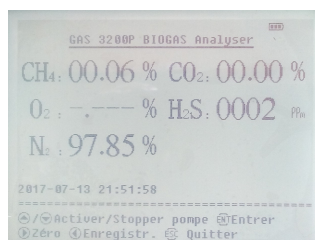


Typical applications

Biogas plants - Anaerobic digestion - Sludge digestion - Composting units - Bio-methane production - Landfill sites - H₂S scrubber efficiency control - Wastewater treatment plants ...



One analyser for all your Biogas and bio-methane measurement needs



Configurations

Model reference	Sensor configuration
GAS 3260P+	CH ₄ + CO ₂ + O ₂ + H ₂ S + H ₂ + CO
GAS 3251P+	CH ₄ + CO ₂ HIGH + CO ₂ LOW + O ₂ LOW + H ₂ S
GAS 3250P+	CH ₄ + CO ₂ + O ₂ + H ₂ S + H ₂
GAS 3240P+ EFF	CH ₄ + CO ₂ + O ₂ + H ₂ S LOW + H ₂ S HIGH
GAS 3240P+ BIOM	CH ₄ + CO ₂ LOW + O ₂ LOW + H ₂ S
GAS 3240P+	CH ₄ + CO ₂ + O ₂ + H ₂ S
GAS 3232P+	CH ₄ + O ₂ + H ₂ S
GAS 3231P+	CH ₄ + CO ₂ + H ₂ S
GAS 3230P+	CH ₄ + CO ₂ + O ₂
GAS 3222P+	CH ₄ + CO ₂
GAS 3221P+	CH ₄ + H ₂ S
GAS 3220P+	CH ₄ + O ₂
GAS 3210P+	CH ₄ or CO ₂ or H ₂ S

Key features

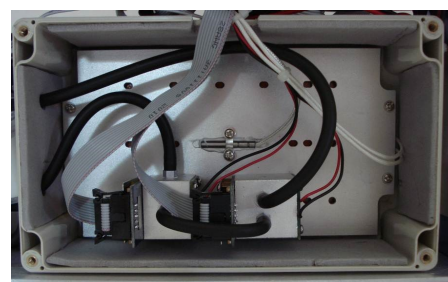
- Up to 6 gas measurement channels
- 4 configurations: Biogas, Bio-methane, Biogas/Bio-methane, H₂S neutralization filter efficiency control
- N₂% calculation (depending on model)
- Dual beam NDIR detectors for CH₄ and CO₂
- Industrial electrochemical cells for H₂S, H₂, CO and O₂ traces
- Long life industrial galvanic fuel cell for O₂%
- Temperature regulated enclosure for NDIR detectors
- Large LCD display and easy to use tactile keyboard interface
- Internal gas sampling pump
- Configurable data recording function (2560 sets of measures)
- RS232 COM port for real time data download to external PC
- Internal battery with measuring autonomy > 6h

Standard accessories

- Nylon carrying bag with front pocket for accessories and shoulder strap
- AC/DC converter 220VAC/ 12.6VDC-3A
- Gas in/Gas out tubing (2x 2m)
- RS232/DB9 cable
- Data download software
- External H₂S filter for O₂ traces sensor (Biomethane)

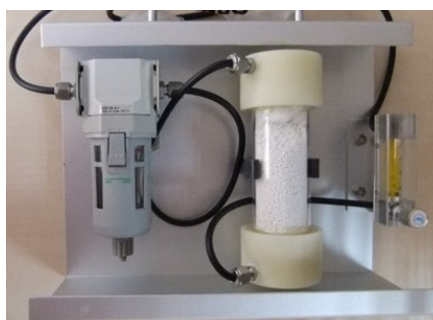
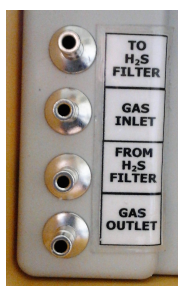
Bio-methane configuration with connexions for an external inline activated carbon filter for H₂S removal to protect the O₂ traces sensor from poisoning

Temperature regulated enclosure for NDIR detectors



Options

- RS232/DB9 ↔ USB cable interface
- Portable biogas drying unit (for saturated biogas)
- Conical biogas sampling probe and CaCl₂ filter (for wet biogas)



TECHNICAL SPECIFICATIONS

Gas measurements	CH ₄ , CO ₂ , O ₂ , H ₂ S, H ₂ and/or CO depending on the application and configuration
Measuring technologies & Estimated life time	CO ₂ , CH ₄ : dual beam NDIR detectors > 5 years O ₂ (biogas): industrial galvanic fuel cell ≥ 3 years H ₂ S, H ₂ , CO, O ₂ (bio-methane): industrial electrochemical sensor 12 to 18 months depending on use
Standard ranges & Cross sensitivities	CH ₄ : 0-100% / No cross-sensitivity from other gases CO ₂ HIGH: 0-50% or 0-100% / CO ₂ LOW (bio-methane): 0-5% / No cross-sensitivity from other gases O ₂ : 0-5% or 0-10% or 0-25% / No cross-sensitivity from other gases O ₂ LOW (bio-methane): 0-1% / To be protected by a charcoal filter for H₂S removal (std. accessory) H ₂ S: 0-10 / 0-50/0-200/0-500/0-1000/0-2000/0-5000 or 0-10000 ppm or 0-2% / No cross-sensitivity from other gases Model GAS 3240P EFF: H ₂ S LOW: 0-50 or 0-200 or 0-500 ppm H ₂ S HIGH: 0-2000 or 0-5000 or 0-10000 ppm or 0-2% H ₂ : 0-1000 or 0-2000 ppm / Compensated for CO, cross-sensitivity < 2 ppm CO: 0-200 or 0-2000 or 0-5000 ppm / Compensated for H₂, cross-sensitivity < 1% of H₂ reading
Display resolution	CH ₄ , CO ₂ HIGH: 0.01% / CO ₂ LOW (bio-methane): 0.001% O ₂ : 0.01% / O ₂ LOW (bio-methane): 0.001% H ₂ S: 0-10 ppm: 0.01 ppm / 0-50 to 0-500 ppm: 0.1 ppm / ≥ 1000 ppm: 1 ppm / 0-2%: 0.001% H ₂ , CO: 1 ppm
Tamb effect on NDIR detectors	NDIR detectors are built in a heated enclosure with temperature control providing increased stability and accuracy of the measurements independently of ambient temperature variations.
Accuracy	NDIR, O ₂ : ≤ ± 2% FS* / H ₂ S, H ₂ , CO: ≤ ± 3% FS* Note: these are design values; a recently calibrated analyser generally provides respective accuracies of ≤ ± 1% FS and ≤ ± 2% FS
Repeatability	NDIR, O ₂ : ≤ ± 1% FS / H ₂ S, H ₂ , CO: ≤ ± 2% FS
Gas sampling	Internal gas sampling pump and external flow meter with needle valve Standard pump: -150mbar @ 1L/min / Optional pump : -350mbar @ 1L/min
Gas conditions at analyser inlet	Pressure: minimum 50 mbar, maximum 500 mbar (with open outlet port) Quality: clean (particles < 0.1µ, no oil traces) and dry (no condensing moisture)
Standard accessories for gas pre-treatment	External coalescing and particles filter integrated in the enclosure of the analyser For biomethane: in-line Activated carbon filter for H ₂ S neutralization before O ₂ measurement
Optional accessories for gas pre-treatment	For wet biogas: optional in-line CaCl ₂ moisture filter For saturated biogas: optional portable gas drying unit with pre-filter and CaCl ₂ moisture filter
Warm-up time	800 seconds
Auto-zero	Auto-zeroing cycle during the last 120 seconds of the warm-up time
Manual zero	Manual zeroing cycle possible via keyboard interface
Ambient operating conditions	Tamb: 0-50°C / Pamb: 86 to 108 kPa / RH: 0-95% non condensing
Communication interface	RS232 serial port (software for real time and memory data transfer to external PC included)
Power supply	Internal Li-ion battery providing > 6h autonomy with pump in operation 220 VAC-50Hz/12.6 VDC-3A power adapter
Data recording function	Up to 2560 sets of data; logging rate adjustable from 3 to 99 sec; Identification capability: groups of measurement, sites and measurement points (numbers)
Display	LCD 320 x 240 display with time programmable back-lit function Simultaneous indication of up to 6 measured/calculated values and units
Casing	Robust design with composite & stainless steel case / Protective soft carrying bag and shoulder strap
Dimensions and weight	L 380 × D140 × H255 mm / 6 kg max

Non contractual pictures and specifications - Subject to changes without notification - Issue -EN18v2



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