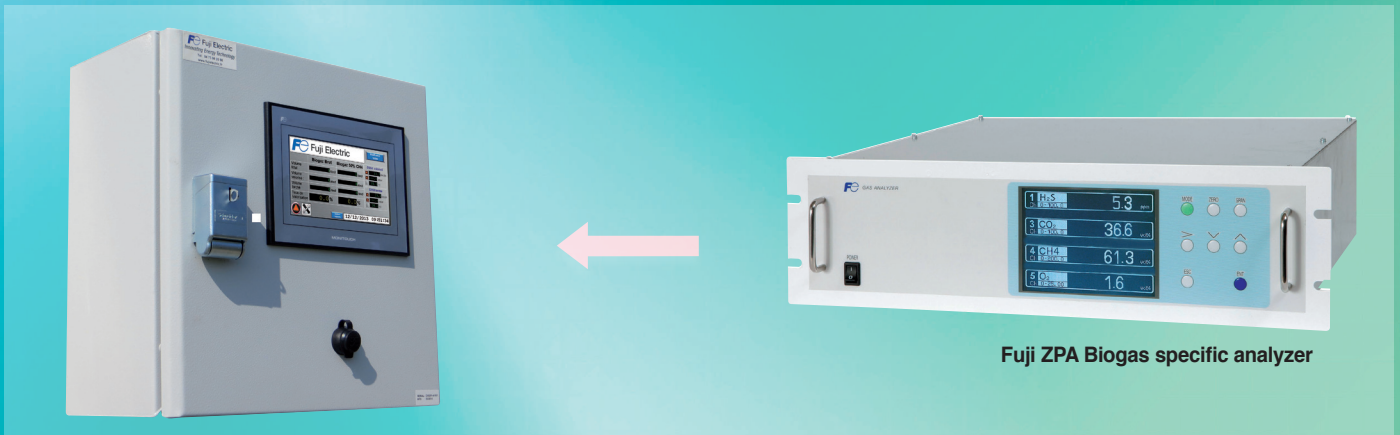


Biogas Analysis System ZPSB

CH₄ / CO₂ / O₂ / H₂S



Fuji ZPA Biogas specific analyzer

GLOBAL FUJI SOLUTION

Part of the global FUJI Biogas solution

The Biogas ZSPB analyzer system is a part of the FUJI Biogas global solution including

- Instrumentation, measurements, software, control
- Service : installation, commissioning, training, maintenance contracts

COMPACT

Simultaneous & Continuous measurement of CH₄, CO₂, O₂ et H₂S

Wall-mounted or standalone analyzer cabinet depending on selected options
Easy and fast installation and commissioning

LOW MAINTENANCE

Low operation cost & high reliability

Fuji Electric CH₄ et CO₂ NDIR optical benches famous for reliable and accurate industrial measurements
Specific protection of optical components to resist to H₂S and other aggressive components
Fuji Electric Sample Switching Technology for long life time of the H₂S cell, **without dilution**
Automatic calibration (option).

PRECISE

Famous high performances of Fuji analyzers

ZPA Biogas analyzer using latest Fuji Electric NDIR technology from new ZP Series
Cross-interferences minimized.

FLEXIBILITY

Flexible and adaptable customized solutions site by site

Polyester standard cabinet for outdoor installation
Industrial & biogas specific sampling system (high humidity, dust and corrosion) designed for each application
Measurement ranges freely configurable by the operator
Multipoint sampling system with Fuji Electric touchscreen POD interface (option)
ATEX sample heated line (option).

Application examples

- Landfill site, Ultimate waste storage site
- Upstream & downstream gas treatment biogas
- Digesters and fermenters
- Sewage treatment plants and laboratories



■ Specifications

ZPSB Biogas Analyzer System is based on the last Fuji ZP Series analyzer generation

General specifications

Measured components	1 to 4 measured components : CH ₄ / CO ₂ / O ₂ / H ₂ S		
Technology	CH ₄ & CO ₂ : NDIR O ₂ : Galvanic cell sensor H ₂ S : Constant potential electrolytic sensor		
Measurement Ranges	CH ₄ & CO ₂ : 0 – 20 %vol O ₂ : 0 – 10 %vol H ₂ S : 0 – 500 ppm	0 – 100 %vol 0 – 25 %vol 0 – 2000 ppm	Ranges freely configurable between min et max
Power supply	100 to 240 V AC 50/60 Hz		
Display	Backlit LCD display (Standard) FUJI touch panel interface (Multipoint Sampling Option)		
Displayed information	Standard : measured components, concentrations, alarms, configuration menus, calibrations and advanced diagnostics Option : advanced functions with multipoint sampling (see multipoint system option)		
Dimensions	Standard Single Point Wall mounted cabinet : 750 x 750 x 500 (mm) (width x height x depth)		
Weight	Standard Single Point Wall mounted cabinet : 50 kg		
Structure	Standard Single Point Wall mounted cabinet : consolidated polyester cabinet for outdoor use		

Performances

Response time	CH ₄ , CO ₂ & O ₂ : 30 sec H ₂ S : 180 sec
Repeatability	CH ₄ , CO ₂ & O ₂ : ± 0,5% PE H ₂ S : ± 2% PE
Linearity	CH ₄ , CO ₂ & O ₂ : ± 1% PE H ₂ S : ± 2% PE

Inputs/outputs

Analog Outputs	4 – 20 mA (one analog output per component)
Bus Outputs	Standard : Concentration measurements and status signals (alarms, calibrations) RS485 Modbus RTU Option : Ethernet Modbus IP (multipoint sampling)
Digital Outputs	Standard : Dry contact general alarm including analyzer fault and sampling system fault General Alarm light indicator on cabinet front door

Environment conditions

Ambiant temperature	-5°C to +40°C
Ambiant humidity	90% RH max

Biogas sample conditioning

Sampling	PTFE or Stainless Steel tube - 4 to 6 mm internal diameter - Option : ATEX heated line
Biogas Pressure	Sampling pump for ambient pressure or low pressure biogas (< 300 mbar g) High pressure biogas : system with pressure reducer
Single point system	Continuous measurement of a single stream : sampling, dryer, filtration, bypass, flow adjustment, H ₂ S absorption (option)
Multipoint system (Optional)	Additional advanced features : <ul style="list-style-type: none">• FUJI Touchscreen interface and PLC• Configuration of the number of components measured (max. 4)• Configuration of the number of biogas streams analyzed (max. 6)• Configuration of stream switching sequence, measurement times, purge times• Automatic or manual switching setting• Display of the 4 (max) measured components concentrations of the 6 (max) analyzed streams• Display of sampling and analyzer alarms• Modbus output of the measurement, status and alarms• Analog outputs and digital outputs (option)



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