ENOX 5

NDIR GAS ANALYZER FOR MEASURING UP TO 5 GASES SIMULTANEOUSLY

Wide-band infrared radiation is emitted from a high-stability, non-metallic source. This radiation is passed alternately through a hole on which a cell (GFC) containing a high partial pressure of the gas to be measured is mounted, or a reference filter (SBDW) and a free hole.
An appropriate optical system directs the infrared radiation into the analysis chamber and then to the detector, which alternately receives and amplifies the two signals representing one the reference, the other the measurement. The gas concentration is proportional to the difference between the two signals.
Any interferents present in the sample will vary both the measurement signal and the reference signal in the same way, so the measurement is not affected by them.

- + Up to 5 simultaneous measure configurable among different gases and ranges
- + Two ranges with automatic switch for each of the 5 measurements
- + High sensitivity sensor and correlation analysis filters
- + No need for periodic calibrations due to automatic zero calibration
- + Backlit LCD touchscreen display for measurements and service information
- + Continuous compensation for ambient temperature, pressure, cross sensitivities
- + Fault and Service request signals separate for each gas
- + Ethernet communication via Modbus TCP protocol

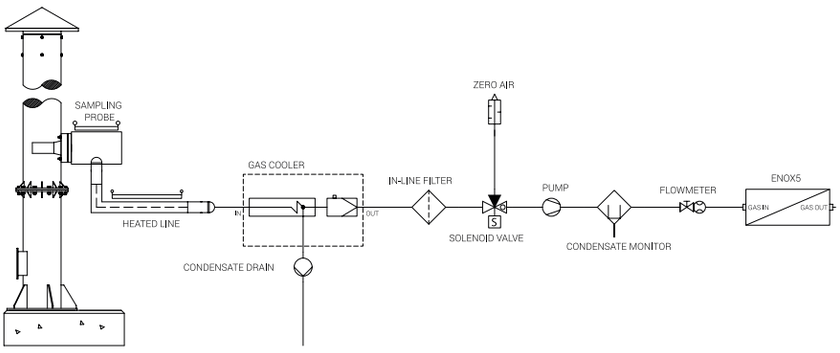
Dimensionals

Standard 19" 3U
450 x 132 x 430 mm depth

Front mask width
485 x 132 mm

Weight 12 Kg

Connections



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Applications

- Combustion control
- Emission measurement of boilers, furnaces, incinerators, cement plants
- Emission measurement of gas engines and turbines equipped with NOx abatement
- Process gas analysis
- Landfill gas analysis
- Air quality in greenhouses, parking lots, tunnels
- Analysis of protective atmosphere gases

Accessories

Analog and digital hard-wired I/O expansion module.

Certifications and Marking

QAL1 according to EN 14181 and EN 14956 based on procedures contained in EN 15267-3

EAC Declaration of Conformity to TR-CU 004 and TR-CU 020
Pattern Approval (PAC)

CE according to En 61010-1 and EMC according to EN 50081 ed EN 50082

Technical specification	
Accuracy	<= 1% of range
Linearity	<= 1% of range
Riproducibility	<= 1% of range
Response time	Based on moving averages settable within 200 sec. for fields certified according to EN 15267-3
Warm up time	15 minutes, upon reaching temperature stability depending on environmental conditions
Drift	Negligible with automatic zero alignment activated
Certified Minimum and Maximum measurement ranges	Gases — Minimum Range — Maximum Range CO — 0-50 mg/Nm^3 — 0-300 mg/Nm^3 NO — 0-50 mg/Nm^3 — 0-400 mg/Nm^3 SO2 — 0-250 mg/Nm^3 — 0-400 mg/Nm^3 Other Gases — Minimum Range CH4 — 0-50 vpm CO2 — 0-50 vpm NO2 — 0-50 mg/Nm^3 CxHy — 0-50 vpm HCl — 0-50 vpm NH3 — 0-50 mg/Nm^3 Wider ranges available on request
Power supply	230-115 Vac 120 VA
Units of measurement	vpm, mg/m3, %, mg/Nm3, ppbi
Flow control	Continuous. Alarm if flow falls under 0,5 l/min
Zero alignment	Automatic and manual with air or Nitrogen. Period and duration settable
Span calibration	Automatic and manual: non necessary. Period and duration settable
Gas inlet conditions	Pressure 20...80 mbar Flow 30...90 Nl/h Temperature +5...+50° C Dew point at least 5° C degree under ambient temperature
Protection degree	IP42
Display	5.7" TFT display - 320x240 pixels with resistive touch panel. Informations: - Measured values with units of measurement and bar graph for each gas - Alarm status and management - Automatic zero and span calibration times if activated
Digital output	1 calibration contact in progress (24 V 500 mA max) 1 zero solenoid valve control contact (24 V 500 mA max) 16 freely configurable on expansion module
Digital input	External automatic zero alignment start 24 V 50 mA
Analogical output	5 isolated 4-20 mA linear inputs, maximum load 500 ohm with expansion module
Comunication	Ethernet MODBUS-TCP
Ambient conditions	Operating temperature: +5 °C to +30 °C (stability +/- 1 °C for minimum ranges) Storage temperature: -10 °C to +60 °C Humidity: < 90% RH non-condensing
Pneumatic connections	Compression fittings for 6x4 mm Hose (EDxID)
Electrical connections	Standard IEC-60320-C13 socket for power and SUB-D connector for signals
Storage temperature	-40 °C/+ 80 °C
Calibration	Automatic via solenoid valves controlled via Modbus TCP

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