MULTI-CHANNEL GAS ANALYSER

Biogas 401

ADOS GmbH

Instrumentation and Control

P.O. Box 500 444 · 52088 Aachen · FRG

Trierer Strasse 23 - 25 · 52078 Aachen · FRG

Tel: +49 (0) 2 41 / 97 69 - 0

Fax: +49 (0) 2 41 / 97 69 - 16

info@ados.de

www.ados.de

Application

The **Biogas Analyser 401** monitors either continuously or intermittently, the gas components contained in the Biogas (process control) and optionally, monitors the surrounding air to provide an early warning of dangerous, explosive and non-combustible gases and vapours.

Fields of Application

- Monitoring of biogas, landfill gas or digester gas
- Warning of explosive gas mixtures
- Warning of gases that endanger health
- Warning of non-combustible gases

Features

- Use of various measurement sensors
- Direct indication of a warning state on an LC-display with colored background lighting
- Menu-assisted operation via 2 keys
- 3 alarm levels, independently adjustable from 5–100 % of the selected test range
- 3 floating alarm outputs for driving external warning and control equipment
- Floating contact connections for fault and mains failure
- Serial interface output RS 232 or RS 485
- 4–20 mA current interface
- Various types of housing available, e.g. 19" rack system, wall-mounting cabinet
- Up to 6 measurement channels per unit
- 1 card as Master for the control of the biogas measuring time and interval
- Extreme service reliability
- Low energy consumption
- Peltier cooling element with condensation pump
- Flow-through adjustement
- Gas components – filter system and conditioning
- Water sensor for the detection of condensate break-through
- Modular construction
- Monitoring of more than one measuring point possible

Measurable gases

Gas	Formula
Methane	CH_4
Hydrogen sulphide	H_2S
Carbon dioxide	CO_2
Oxygen	O_2
Hydrogen	H_2

Accessories

External peltier gas cooler, Signal horn, warning light, warning banner.

Other accessories will be offered, according to the measurement tasks required.

Technical Data

Details apply, per control unit

Sensors:	Electrochemical sensors Infrared sensors
Sensor input:	2-wire sensors (TOX 592) or 3-wire sensors (GTR 196) for warning of explosive gas mixtures
Sensor supply:	24 V DC / 200 mA max.
Test ranges:	CO_2: 0-50 Vol.% CH_4: 0-100 Vol.% O_2: 0 - 21 Vol.% (optionally continuous) H_2: 0-2 Vol. % H_2S: 0-50 ppm ... 0-5.000 ppm (only discontinuous) other ranges by request
Accuracy:	< ±3 %, f.s.d.
Ambient temperature:	+5 °C to +45 °C
Temperature effects:	< 5 % for a ±20 °C change
Installation:	Wall-mounting
Output signals:	Current output 4–20 mA; RS 232 or RS 485 interface; for each measurement channel: 3 alarm relays 1 fault relay
Relay rating:	230 V, 450 VA
Voltage supply: optional:	230 V / 50 Hz 115 V / 60 Hz
Power consumption:	100 VA
Dimensions (W x H x D):	600 x 478 x 480 mm (9 HU)
Weight:	approx. 60 kg