

## AnOx: Oxygen Analyzers



### Our priorities

- Performance
- Reliability
- Flexibility
- Convenience
- Cost-efficiency

### Support & Service:

BACS provides various ways of warranty and support programs including factory & end-user side training, phone & web assistance and customizable solutions for wide range of applications.

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**AnOx** is a series of analyzers designed for fast, reliable and accurate measurement of the oxygen concentration in various gases.

### Modifications of Oxygen Analyzers

- ✓ **AnOx** – stationary process oxygen analyzer
- ✓ **Portable oxygen analyzer**
- ✓ **AnOx Transmitter**

### Applications

- ✓ Natural gas analysis
- ✓ Refinery gas analysis
- ✓ Petrochemical processes
- ✓ O<sub>2</sub> measuring in different industrial gases



### Main Features

- ✓ Electrochemical sensor with high sensitivity
- ✓ Wide detection range (from ppm level to 100%)
- ✓ Fast response
- ✓ Superior accuracy
- ✓ Simple design, easy installation and operation
- ✓ Explosion protection for all modifications

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## Importance of measuring oxygen in natural gas



According to new requirements of European standard EN 16726:2015 “Gas infrastructure — Quality of gas - Group H” at network entry points and interconnection points the mole fraction of oxygen should be no more than **0,001 %** (or **10 ppm**), presented as a moving 24 hour average.

## AnOx



**AnOx** – modern process analyzer based on advanced electrochemical detector to measure low-ppm level of oxygen with outstanding accuracy



## Benefits

- ✓ Completely automatic operation and calibration
- ✓ Up to 2 analyzed streams
- ✓ High measurement accuracy and fast analysis
- ✓ Internal data storage and variety of output interfaces
- ✓ Integrated software and power supply unit
- ✓ Easy maintenance with low service cost

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## Portable oxygen analyzer



**Portable oxygen analyzer** provides efficiency and reliability of stationary **AnOx** in compact casing.

The analyzer is designed to measure oxygen content in the field conditions in gases including natural gas.

### Benefits

- ✓ Mobile oxygen analysis in gas and oil refinery, petrochemical, chemical, food and other industries.
- ✓ Wide operation temperature range (from  $-40^{\circ}\text{C}$ );
- ✓ Long time of autonomous work on built-in battery even in cold conditions
- ✓ Easy to handle and service
- ✓ Neither auxiliary gases nor external sample preparation required
- ✓ Compact size and light weight

## AnOx Transmitter



**AnOx Transmitter** is created for on-line oxygen analyzes with the same performance capabilities as stationary **AnOx** version.

### Benefits

- ✓ Compact size
- ✓ Low power consumption
- ✓ Easy to handle and service
- ✓ Low cost
- ✓ Comfort mounting



### Technical characteristics

Parameter	AnOx	AnOx-transmitter	Portable oxygen analyzer
Principle of operation	Electrochemical		
Number of analyzed streams	Up to 2	1	
Operation mode	Automatic		Manual
Analysis cycle	Continuous		
Calibration	Automatic	Manual	
Explosion protection	1 Ex d IIC T6 Gb	1 Ex d [ib] mb IIC T6 Gb	1 Ex mb [ib] IIC T6 Gb X
Ingress protection	IP65	IP65	IP66
Power consumption	up to 90 W (start-up) up to 30 W (typical)	up to 10 W	up to 17 W (start-up) up to 7 W (typical)
Communication Interfaces	RS232/RS485, Ethernet, 4-20 mA, GSM / GPRS	RS485, 4-20 mA	RS 232/485
Sample gas pressure, bar	1 ± 0,5	0,5 ± 0,2	up to 240
Sample gas flow rate, SLM	0,2 – 2,0		
Software	Built-in and external	Built-in	Built-in and external
Battery life at -40°C	-		no less than 6 hours
Ambient temperature, °C	from -20 to +50	from 0 to +50	from -40 to +50
Weight, kg, no more than	39	4	8,34
Dimensions, mm (L×W×H)	450x238x485	178x216x272	300×350×170

### Metrological characteristics

Detection range of O <sub>2</sub>	Maximum allowed absolute uncertainty, ppm
0 - 500 ppm	± (1,5 + 0,05·C <sub>in</sub> )
0 - 2000 ppm	± (5 + 0,08·C <sub>in</sub> )
0 - 10000 ppm	± (100 + 0,06·C <sub>in</sub> )
0 - 100 %	± (0,5 + 0,03·C <sub>in</sub> ) %

#### Custom solutions

We are able to design a custom analytical solution for your specific application. For more information please don't hesitate to contact us.

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