

# Analyzers for Cryogenic Air Separation Quality

Monitoring gas quality and purity  
in air separation plants







## Trace Oxygen and Oxygen Purity

### Analytical Industries Inc PI2-UHP 50/100 – For Ultra-high Purity Gases

Accurate and stable measurements of oxygen down to low parts per billion – with an LDL of less than 100 ppt.

- Cost-effective and reliable electrochemical sensors with 12 months life
- Heated sample system for measurement integrity – negating the diurnal temperature effect
- Auto-calibration system with true zero feature via O<sub>2</sub> scrubber

### Analytical Industries Inc PI2-MS 500/1000 – For Ultra-high Purity Gases

Accurate and stable measurements of oxygen down to parts per billion.

- Cost-effective and reliable electrochemical sensors with 12 - 24 months life
- Easy to maintain, simple to operate
- Optional auto calibration system with true zero feature via O<sub>2</sub> scrubber

### Analytical Industries Inc GPR-1600/2600/3100 – For Industrial Gas

Monitor gas produced or used in industrial processes where trace oxygen from low parts per million to pure O<sub>2</sub> must be precisely measured.

- High accuracy ( ±0.02 ppm in lowest range)
- Long sensor life up to 24 months in <1,000 ppm O<sub>2</sub>
- Integrated bypass valve (for GPR-1600)

### Michell Instruments XZR400 – Oxygen Analyzers for Industrial Gas

Monitor gas produced or used in industrial processes where trace oxygen from low parts per million to pure O<sub>2</sub> must be precisely measured in gases with no hydrocarbons present.

- High accuracy ( ±0.02 ppm in lowest range)
- Long sensor life regardless of oxygen content
- Optional integrated Easidew sensor

### Michell Instruments XTP601 – Oxygen Analyzer

A robust, linear and stable oxygen analyzer housed in an IP66 rugged casing.

- Intrinsic error (accuracy) is better than ±0.2 %O<sub>2</sub>
- Calibration intervals up to 6 months
- Outputs include RS485 and two 4-20 mA (following NAMUR NE 44 standard)

### Analytical Industries Inc GPR-1200/GPR-3500 – Portable Purity and Trace Oxygen Analyzers

An economical and reliable portable analyzer for accurate measurements of trace oxygen.

- Measurement ranges from 0...10 ppm up to 0...100 %O<sub>2</sub>
- Accuracy of better than 2 % of range
- 24-32 months sensor life span (in normal use)

### Analytical Industries Inc GPR-1100/2000 – Portable Oxygen Analyzers

Suitable for trace oxygen measurements from 0.1 ppm through to purity applications at 100 % oxygen, these rugged portable instruments share the same advanced sensor technology the Analytical Industries Inc online process oxygen analyzers.

- Measurement ranges from 0...1000 ppm up to 0...25 %O<sub>2</sub>
- Up to 5 ranges per model with manual or auto-ranging feature
- Rugged design, proven to last in field operation
- Up to 30 days battery life (40 hours with pump)



## Trace Moisture

### Michell Pura – Pure Gas Trace Moisture Transmitter

Rugged, self-contained hygrometer to measure trace moisture content in ultra-high-purity gases.

- Precision measurement from 0.1...2000 ppmv
- Low maintenance

### Michell Easidew – Industrial Trace Moisture Transmitter

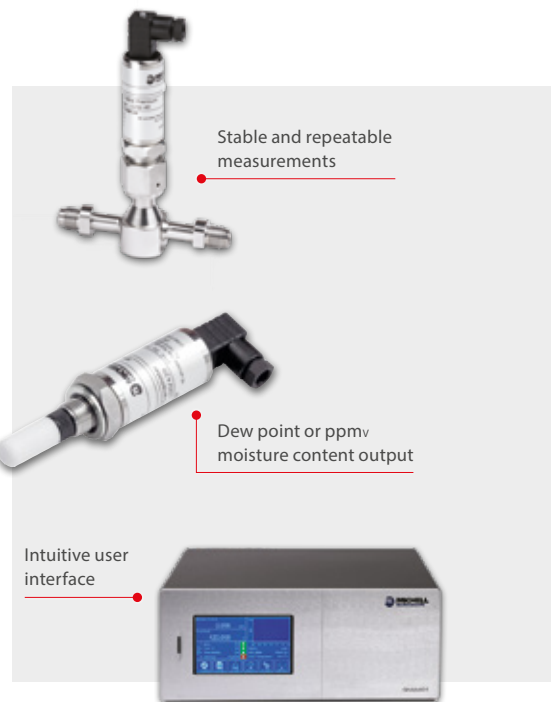
The Easidew sensor is a moisture meter that measures both dew point and moisture content. It is simple to install as it is available with a wide range of process connections and electrical connectors.

- Measurement ranges -110...20 °Cdp (-166...68 °Fdp)

### Michell QMA401 – Self-Calibrating Trace Moisture Analyzer

Quartz crystal microbalance sensing technology provides reliable, fast and highly accurate measurements of trace moisture.

- Precision measurement from 0.1...2000 ppmv
- Low maintenance

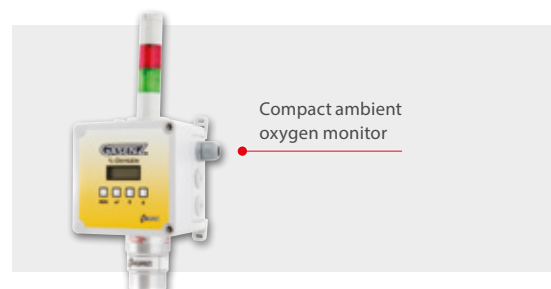


## Ambient Monitoring

### Ntron Gasenz – Ambient Oxygen Analyzer

The Gasenz ambient oxygen analyzer monitors ambient oxygen levels in work areas to detect oxygen deficiency (to avoid risk of asphyxiation) or oxygen enrichment (to avoid risk of explosion or fire).

- Long life, low maintenance zirconia, electrochemical or optical sensor technology
- Measurement range: 0...25 %O<sub>2</sub>
- Audio/ visual alarm indicator



## Process Sensing Technologies

We provide an unmatched suite of instruments, analyzers and sensors for precision measurements and monitoring in highly demanding end markets. These range from pharmaceutical/ life sciences, speciality gases, semiconductors, O&G, petrochemicals and power to gas detection, food and beverage and building automation. Using our products, customers save millions of dollars each year through increased energy efficiency in their processes and reduced process disruptions. The quality of food, medicines, semi-conductors and thousands of manufactured goods depends on reliable measurements of critical parameters such as humidity, oxygen, CO, N<sub>2</sub>, H<sub>2</sub>, hydrocarbons, pressure or CO<sub>2</sub> during production, storage and transport. Our products directly improve the profitability of our customers and help them to stay compliant with stringent industry regulations. We own and manufacture the sensing technologies used in the majority of our products. This allows us to remain in a strong leadership position and pass on the benefits of our innovation to our customers.

### PST Leading Brands

- Analytical Industries Inc. – Electrochemical oxygen sensors and gas-analysis
- Dynamet – Infrared gas sensors
- LDetek – Ultra low range online analyzers
- Michell Instruments – Moisture and oxygen sensing and instrumentation
- Ntron Gas Measurement – Oxygen sensors and analyzers
- Rotronic – Humidity and temperature instruments, monitoring systems
- SST Sensing – Oxygen sensors and liquid level switches

### Group Facts

- Experts in analyzers & systems to ensure purity of industrial O<sub>2</sub>, nitrogen & argon
- 22 Service and sales subsidiaries
- 8 global engineering and manufacturing locations
- 100+ authorized distributors
- 14 proprietary technologies