

# Oxygen & Gas Sensors Product Guide

Maximum safety, optimum efficiency.  
Oxygen sensor technology calibrated to  
improve your process



# Maximizing safety and efficiency in high risk environments demands sensor technology you can rely on.

Our oxygen analyzers have been ensuring the safety of our customers and their processes for decades.

As a recognized leader in gas analyzers, you can be confident knowing that our solution will have the best combination of technology and expertise to guarantee your process measurements. With no moving parts, our analyzers are designed for the toughest applications. Partnering with Panametrics doesn't just bring you reliability and consistency in measurements though,

it offers fully customized solutions unique to your process and supported by local technical teams.







Our technology and application specialists are experts in designing the best solutions in gas analysis for the petrochemical, pharmaceutical, energy, steel, food & beverage and industrial gas industries. Our global network ensures

our partners get first class local support for all aftermarket needs such as start-up commissioning, calibration services and product training.












# Industry applications

Panametrics' process measurement solutions cover a wide range of industries and applications.

									
XMO2pro	✓	✓	✓	✓	✓	✓	✓	✓	✓
XMTCpro	✓	✓	✓	✓	✓	✓		✓	
oxy.IQ	✓	✓	✓	✓	✓		✓	✓	
DeltaF		✓	✓	✓	✓	✓	✓		
CGA351		✓	✓	✓		✓	✓		
XDP	✓	✓	✓	✓	✓	✓	✓	✓	✓
TMO2D	✓	✓	✓	✓	✓	✓	✓	✓	✓

## Key to industries

-  Power Plant
-  Refinery
-  Petrochemical Plant
-  Natural Gas
-  Steel Plant
-  Industrial Gases
-  Pharmaceutical
-  Food and Beverages
-  Water & Wastewater

# XMO2pro

## Proven robustness in hazardous area oxygen analysis

The XMO2pro with optional SIL 2 certification was developed for stability and longevity when measuring oxygen content in the percentage range, can easily recover from process failures and delivers highly accurate measurements, especially in explosion-hazard areas.

### Applications



**Power Plant**  
H<sub>2</sub> (cooling generator)



**Refinery / Petrochemical Plant / Natural Gas**



Hydrocarbon gas feed  
Hydrogen recycle gas



Liquid HC storage tanks  
Natural gas pipelines  
Ethylene/polyethylene plant  
Biogas upgrading



**Steel Plant**  
Annealing furnaces



**Pharmaceutical**  
Liquid HC storage tanks  
Centrifuges  
Reactors  
Ambient monitoring  
Reactivation of carbon



**Industrial Gases**  
Percent oxygen



**Food and Beverages**  
Oxidization prevention of dry powders



**Water & Wastewater**  
Oxygen measurement in waste water digester gas



### Features

- Background gas compensation
- Intuitive Operator Interface on a Multiparameter Display
- No moving parts assuring trouble-free operation
- Class 1 Div 1/ATEX and IECEx zone 1 as standard
- SIL 2 by Design (Optional)

# XMTCpro

## High accuracy analysis in a compact binary gas analyzer

The XMTCpro with optional SIL 2 certification is a compact, reliable and field proven thermal-conductivity analyzer, best used when safety is a priority. Configured for Class 1 Div 1/ zone 1 environments and with solvent resistant versions, the XMTCpro is a highly versatile and cost effective analyzer used for percent measurement in known gas compositions.

### Applications



**Power Plant**  
H<sub>2</sub> (cooling generator)



**Refinery / Petrochemical Plant / Natural Gas**



Biogas upgrading  
Catalytic reformer for recycle hydrogen  
Isomerization unit for recycle hydrogen



Butamer unit off-gas  
Hydrotreater for recycle hydrogen  
Fuel gas/Off gas



**Industrial Gases**  
Air separation units (N<sub>2</sub>/Argon/O<sub>2</sub>/H<sub>2</sub>)  
Cylinder filling



**Food and Beverages**  
CO<sub>2</sub>-purity (breweries)



### Features

- Class 1 Div 1/ATEX and IECEx zone 1 as standard
- IP66/4X rated for internal/external use
- No moving parts assuring trouble - free operation
- Push button field calibration

# oxy.IQ

## Highly reliable and cost effective oxygen measurement, all in a compact intrinsically safe package

Designed with usability and customer integration as a priority, the oxy.IQ is a two wire loop powered transmitter with 17 different percent and ppm scales for oxygen analysis. Leveraging proven sensor technology, the oxy.IQ combines all of these features in an intrinsically safe package perfect for oxygen measurement in a variety of background gases.

### Applications



#### Power Plant

Oxygen measurement H<sub>2</sub> cooled generators



#### Refinery / Petrochemical Plant / Natural Gas

Biogas upgrading



Catalytic reformer for recycle hydrogen

Isomerization unit for recycle hydrogen



Butamer unit off-gas

Hydrotreater for recycle hydrogen

Fuel gas/off gas



#### Steel Plant

Annealing furnaces



#### Industrial Gases

Nitrogen generators

Oxygen impurities



#### Pharmaceutical

Glovebox applications



#### Food and Beverages

CO<sub>2</sub>-purity (breweries)



### Features

- Intrinsically safe option for Class 1 Div 1 / ATEX and IECEx zone 0 locations
- Low maintenance, economical and compact
- Flameproof option available
- Non-incendive without Zener barriers for class 1 Div 2, US only
- Sensor lifetime indicator
- Display Auto ranging

# Delta F

## Delivering ultra stable oxygen analysis across the full measurement range and optimized for industrial gas applications

The DeltaF non-depleting coulometric cell provides ultra stable oxygen measurement and requires only an annual span calibration. Combined with Panametrics Moisture.IQ, this offers a cost effective six channel solution for multi point oxygen measurement covering the full span of ppm and percentage measurements. The DeltaF is particularly suited to applications requiring process and quality control.

### Applications



**Refinery**  
**Petrochemical Plant**



**Natural Gas**  
Natural gas pipelines  
Ethylene plant – oxidization prevention



**Steel Plant**  
Annealing furnaces



**Industrial Gases**  
Air separation units (N<sub>2</sub>/Argon/  
O<sub>2</sub>/H<sub>2</sub>)  
Cylinder filling



**Pharmaceutical**  
Glovebox applications



### Features

- Ultra stable coulometric measurement technology
- Low cost of ownership with span calibration
- Fast response times
- Combined with the moisture.IQ offers a 6 channel analyzer and intrinsically safe DeltaF
- Class I Div 1/ATEX and IECEx zone 1



For more information please  
contact your local Panametrics  
representative, or visit:

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