Panametrics
a Baker Hughes business

Maximum safety, optimum efficiency

Oxygen sensor technology calibrated to improve your process



panametrics.com

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

OXYGEN & GAS SENSORS PRODUCT GUIDE | PANAMETRICS



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.

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Market Matrix

	XMO2	XMTC	oxy.IQ	DeltaF	CGA351	XDP	TMO2D
Power Plant	✓	✓	✓			✓	✓
Refinery	✓	✓	✓	✓	✓	✓	✓
Petrochemical Plant	✓	✓	✓	✓	✓	✓	✓
Natural Gas	✓	✓	✓	✓	✓	✓	✓
Steel Plant	✓	✓	✓	✓		✓	✓
Industrial Gases	✓	✓		✓	✓	✓	✓
Pharmaceutical	✓		✓	✓	✓	✓	✓
Food & Beverages	✓	✓	✓			✓	✓
Water / Waste Water	✓					✓	✓

XMO2

Proven robustness in hazardous area oxygen analysis

Designed for stability and longevity in oxygen percent measurement, the XMO2 can easily recover from process upsets and maintain high accuracy readings in hazardous areas.

APPLICATIONS

Power Plant
H2 (cooling generator)

Refinery / Petrochemical Plant / Natural Gas Application
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 application
Percent oxygen

Food and Beverage
Oxidization prevention of dry powders

Waste Water
Oxygen measurement in waste water digester gas



KEY FEATURES

- Background gas compensation
- Push button field calibration
- No moving parts assuring trouble-free operation
- Class 1 Div 1/ATEX and IECEx zone 1 as standard

XMTC

High accuracy analysis in a compact binary gas analyzer

The XMTC 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 XMTC is a highly versatile and cost effective analyzer used for percent measurement in known gas compositions.

APPLICATIONS

Power Plant
H2 (cooling generator)

Refinery / Petrochemical Plant / Natural Gas Application
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 (N2/Argon/O2/H2)
Cylinder filling

Food and beverages
CO2-purity (breweries)



KEY 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 H2 cooled generators

Refinery / Petrochemical Plant / Natural Gas Application
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
CO2-purity (breweries)



KEY 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

DeltaF

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 Application
Natural gas pipelines
Ethylene plant – oxidization prevention

Steel Plant
Annealing furnaces

Industrial Gases
Air separation units (N2/Argon/O2/H2)
Cylinder filling

Pharmaceutical
Glovebox applications



KEY 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 1 Div 1/ATEX and IECEx zone 1

CGA351

Super fast response times covering all oxygen ranges in clean gas applications

The fastest responding oxygen measurement technology which is ultra stable and covers low ppm to percent measurements. Single point calibration compliments a low maintenance analyzer particularly suited for clean gas operations where speed of response and accuracy are key requirements.

APPLICATIONS

Refinery / Petrochemical Plant / Natural Gas Application
CDU – N2 Plant

Industrial Gases
Air separation units
(N2/Argon/O2/H2)

Pharmaceutical
Glovebox applications



KEY FEATURES

- T90 response time in <2 seconds
- Increased accuracy at lower ppm levels
- Measures from 0.1ppm to 100% oxygen

XDP

Offering added functionality to Panametrics transmitters, the XDP is more than just a fully certified Ex Proof display

In addition to offering a local display, the auto-calibration and verification functionality of the XDP compliments the XMO2 and XMTC transmitters with even lower maintenance and calibration requirements, offering a full solution package. The advanced micro-processor control compares calibration readings with factory settings to verify calibration. Corrections are automatic with user notification.

APPLICATIONS

Power Plant
Hydrogen cooled generators
custom software

Refinery / Petrochemical Plant / Natural Gas Application
Hydrocarbon gas feed
Hydrogen recycle gas
Liquid HC storage tanks
Natural gas pipelines
Ethylene/polyethylene plant
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
Air separation units (N2/Argon/O2/H2)
Cylinder filling

Pharmaceutical
Liquid HC storage tanks
Centrifuges
Reactors
Ambient monitoring

Food and beverages
CO2-purity (breweries)



KEY FEATURES

- Full solution enabler to compliment the XMO2, XMTC and oxy.IQ with added functionality
- 4 relay output for solenoid control
- Very low maintenance requirement and reduced touch time of other transmitters
- Class 1 Div 1/ATEX and IECEx zone 1 as standard

TMO2D

Added functionality in a cost affective package, this safe area display compliments the Panametrics analyzers with increased functionality and control

The TMO2D offers auto-calibration and verification control to support the XMO2, XMTC and oxy.IQ analyzers. This package comes in user selectable form factors which offers reduced maintenance and alarm outputs.

APPLICATIONS

Power Plant
Hydrogen cooled generators
custom software

Refinery / Petrochemical Plant / Natural Gas Application
Hydrocarbon gas feed
Hydrogen recycle gas
Liquid HC storage tanks
Natural gas pipelines
Ethylene/polyethylene plant
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
Air separation units (N2/Argon/O2/H2)
Cylinder filling

Pharmaceutical
Liquid HC storage tanks
Centrifuges
Reactors
Ambient monitoring

Food and beverages
CO2-purity (breweries)



KEY FEATURES

- Single or dual isolated 4-20mA outputs
- Up to four field-configurable process alarms
- Automatic calibration relays for auto-calibration of XMO2 and XMTC

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