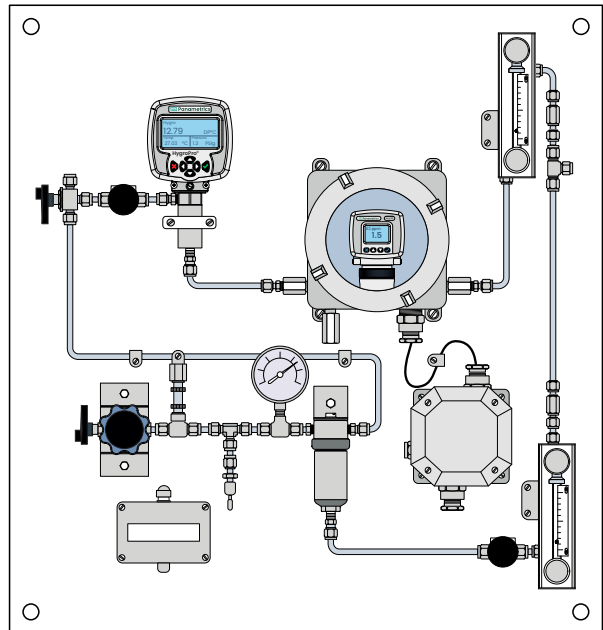


H2pure.IQ

Moisture and oxygen transmitter solution for hydrogen purity



Features

Deliver an accurate trace moisture and oxygen measurement with the Panametrics H2pure.IQ. The new moisture and oxygen transmitter packaged solution simplifies the selection and installation of your moisture and oxygen transmitters. Only a few simple steps: install the moisture and oxygen transmitters, connect your loop power and sample gas to the inlet fitting and you are ready to measure.

Other benefits include:

- IP66 and NEMA 4X package (with plate option)
- Moisture and oxygen transmitters with sample system
- Intrinsically safe or explosion proof
- Features the choice of HygroPro[®], HygroPro XP, or MMY30 moisture transmitter along the oxy.IQ oxygen transmitter
- Sample system provides isolation; filtration; pressure reduction, indication, and relief valve for sensor protection; and flow indication
- Enclosure is available in 304SS and 316SS and has an optional clear door for viewing all displays
- Enclosure heater option

Application

The standard H2pure.IQ package is designed for trace moisture and oxygen measurements in pure hydrogen gas. Per ISO 14687 for hydrogen fuel quality (grade D), the moisture and oxygen concentrations must be less than 5 ppm. The H2pure.IQ package solutions combine both these requirements in one system, reducing the overall footprint of the installation.

This may be used in environments classified as safe or hazardous areas, where the process gas is less than 725 psig/50 bar.

The system combines the Panametrics HygroPro[®], HygroPro XP, or MMY30 as well as the oxy.IQ, along with over 50 years of sample system design experience, to deliver the moisture and oxygen measurements you have come to trust.

Ordering configuration

H2pure.IQ is comprised of the following items:

- HygroPro[®], HygroPro XP, or MMY30 moisture transmitter
- oxy.IQ oxygen transmitter
- Sample system with options for enclosure heater, enclosure material and process connections
- Zener barriers for intrinsically safe versions

Available options

Components suitable for:

- General Purpose, Intrinsically Safe or Explosion Proof Installation
- ATEX/IECEX Zone 1/2 or Class I Div 1/2
- Plate mounted, SS304 or SS316 enclosure
- Enclosure heater available

Application parameters

- Sample gas pressure: 0 to 725 psig (50 bar)
- Recommended operating temperature range: 32°F to 122°F (0 to +45°C)
- Moisture content:
 - -166°F to 68°F (-110°C to 20°C) dew/frost point, 0 – 10,000 ppmv
 - (Typical 0 – 10 ppmv)
- Oxygen content:
 - 0 – 1000 ppmv
 - (Typical 0-10 ppmv)

Panametrics, a Baker Hughes business, provides solutions in the toughest applications and environments for moisture, oxygen, liquid and gas flow measurement.

Experts in flare management, Panametrics technology also reduces flare emissions and optimizes performance.

With a reach that extends across the globe, Panametrics' critical measurement solutions and flare emissions management are enabling customers to drive efficiency and achieve carbon reduction targets across critical industries including: Oil & Gas; Energy; Healthcare; Water and Wastewater; Chemical Processing; Food & Beverage and many others.

Join the conversation and follow us on LinkedIn
[linkedin.com/company/panametricscompany](https://www.linkedin.com/company/panametricscompany)

Electrical

Power

Voltage: 12 to 30 VDC (loop-powered, customer supplied)
Separate loops required for H₂O and O₂

115V/230V required for optional heater

Mechanical

Sample connection

- ¼" with option for 6mm

Enclosure

- Type 4X/IP67
- SS304 or SS316

Dimensions

- H x W x D: 31.5 x 31.5 x 11.8" (800 x 800 x 300 mm) or 39.5 x 31.5 x 11.8" (1000 x 800 x 300 mm)
- Weight: approx. 30 Kg

Moisture sensor

Sensor type

Thin-film aluminum oxide moisture sensor

Calibration interval

Sensor recalibration by Panametrics is recommended every twelve months.

Accuracy

±2°C (±3.6°F) Dew Point in the range -100° to 20°C

Oxygen sensor

Sensor type

Electro-chemical galvanic fuel cell

Calibration interval

Panametrics recommends in-field sensor calibration every three to six months, depending on accuracy requirements.

Accuracy

- ±1% of range at calibration point
- ±2% of range at the calibration point for the 0 to 10 ppmv range (OX-1 or OX-2 only)

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