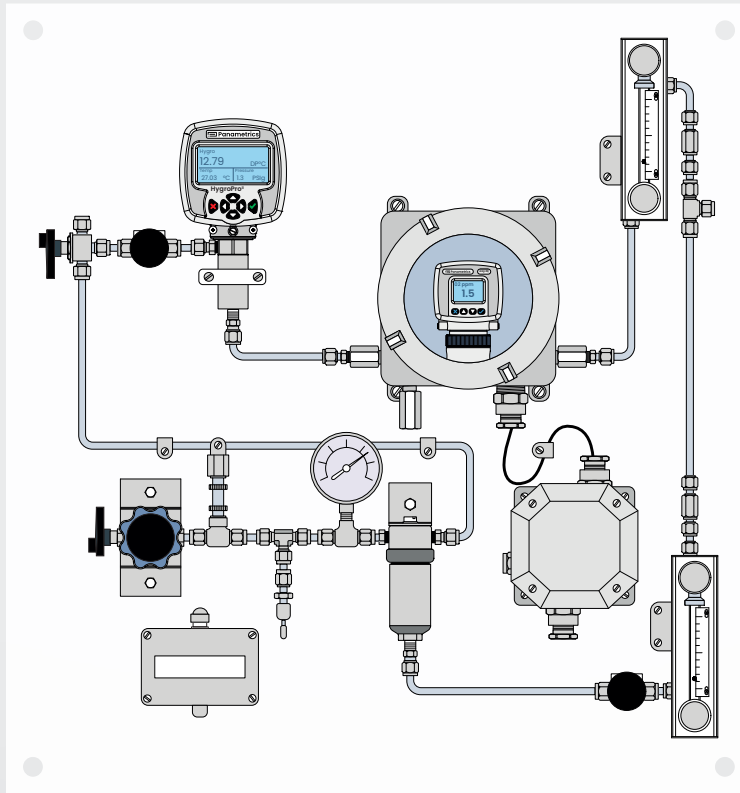




H2pure.IQ

Moisture and oxygen transmitter solution for hydrogen purity

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 HygroProll, 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.

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 HygroProll, 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

Ordering configuration

H2pure.IQ is comprised of the following items:

- HygroProll, 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)

Technical Specifications

Electrical and mechanical

Power	Voltage: 12 to 30 VDC (loop-powered, customer supplied) Separate loops required for H ₂ O and O ₂ 115V/230V required for optional heater
Sample connection	½" 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)