



pro.IQ

Moisture analyzer packaged solution

Deliver an accurate moisture measurement with the Panametrics pro.IQ. The new moisture analyzer packaged solution simplifies the selection and installation of your moisture analyzer. Only a few simple steps; install the moisture transmitter, and connect your loop power and sample gas or liquid to the inlet fitting and you are ready to measure. Other benefits include:

- IP66 and NEMA 4X package
- The moisture transmitter, sample system and Zener barrier (if ATEX Zone 1 or Class I Div. 1 hazardous area option selected)
- Features the HygroProll moisture transmitter
- Sample system provides isolation, filtration, pressure indication on gas systems and flow indication on both gas and liquid systems. Enclosure is available in 304SS and 316SS and has a clear door for viewing all readings. Optional heater is also available.

Ordering configuration

pro.IQ is comprised of the following items:

- HygroProll moisture transmitter
- Sample system with configurable options for gas or liquid applications, general purpose or hazardous area, enclosure heater, enclosure material and process connection
- Zener barrier open ATEX Zone 1 or Class I Div. 1 Hazardous area option only)

Available options

pro.IQ Price Option A	Console
pro.IQ	Hydrocarbon gas/liquid sample system
pro.IQ Price Option B	Gas/Liquid
pro.IQ-B-0	Gas System
pro.IQ-B-1	Liquid System
pro.IQ Price Option C	Certification
pro.IQ-C-0	Safe Area / General Purpose
pro.IQ-C-1	Class I, Div. 1, Group A-D
pro.IQ-C-2	Class I, Div. 2, Group A-D
pro.IQ-C-3	ATEX/IECEX Zone 1 IIC
pro.IQ-C-4	ATEX/IECEX Zone 2 IIC
pro.IQ Price Option D	Heater
pro.IQ-D-0	Without Heater
pro.IQ-D-1	With Heater (80W)
pro.IQ Price Option E	Enclosure
pro.IQ-E-0	304SS Enclosure
pro.IQ-E-1	316SS Enclosure
pro.IQ Price Option F	Fittings
pro.IQ-F-(I)	Imperial Components - 1/4 inch
pro.IQ-F-(M)	Metric components - 6mm

Application parameters

General purpose configuration

- Sample gas or liquid pressure: 0 to 200 psig (14 bar)
- Recommended operating temperature range: 32°F to 122°F (0 to +50°C)

Hazardous area configuration

- Sample gas pressure: 0 to 400 psig (27 bar)
- Sample liquid pressure: 0 to 500 psig (34.5 bar)
- Recommended operating temperature range: 32°F to 140°F (0 to +60°C)

Common

- Moisture content: -166°F to 68°F (-110°C to 20°C) dew/frost point, non-condensing

Applications

The standard pro.IQ package is designed for moisture measurements in hydrocarbon gas, liquid or inert gas application. It may be used in environments classified as safe or hazardous areas, where the process gas or liquid pressure is up to 200 psig (14 bar) in safe areas, 400 psig/27 bar (gas system) or 500 psig/34.5 bar (liquid system) in hazardous area. The system combines the Panametrics HygroProll with over 50 years of sample system design experience, to deliver the moisture measurement you have come to trust.

Markets and applications served include:

- Natural gas
- Hydrocarbon gases
- Hydrocarbon liquids
- Petrochemical
- Metal heat treatment
- Industrial gas
- Power generation

HygroPro^{II}

Specifications

Dew point/frost point calibration ranges Standard: -112°F to 50°F (-80°C to +10°C) with data from -166°F to +68°F (-110°C to +20°C)

Operating temperature -4°F to 140°F (-20°C to 60°C*)
*Refer to pro.IQ specifications for overall system limits

Storage temperature 158°F (70°C) maximum

Warm-up time Meets specified accuracy in three minutes

Calibrated accuracy @ 77°F (25°C)

- ±3.6°F (±2°C) above -148°F (-100°C)
- ±5.4°F (±3°C) below -148°F (-100°C)

Repeatability

- ±0.4°F (±0.2°C) above -148°F (-100°C)
- ±0.9°F (±0.5°C) below -148°F (-100°C)

Electrical

Power

- Voltage: 12 to 30 VDC (loop-powered, customer supplied)
- Output: 4 to 20 mA analog and HART digital
- Output resolution: 0.01 mA/12 bits
- Cable: 6 ft (2 m), standard includes molded weatherproof connector with flying leads to connect transmitter to sample system terminal block

Display 128 x 64 LED backlit LCD
Display from one to three parameters and diagnostics

Mechanical

Sample connection 3/4-16 in (19 mm) straight male thread with o-ring

Operating pressure 5 µm Hg to 5,000 psig (345 bar*)
*Refer to pro.IQ specifications for overall system limits

Enclosure Type 4X/IP67

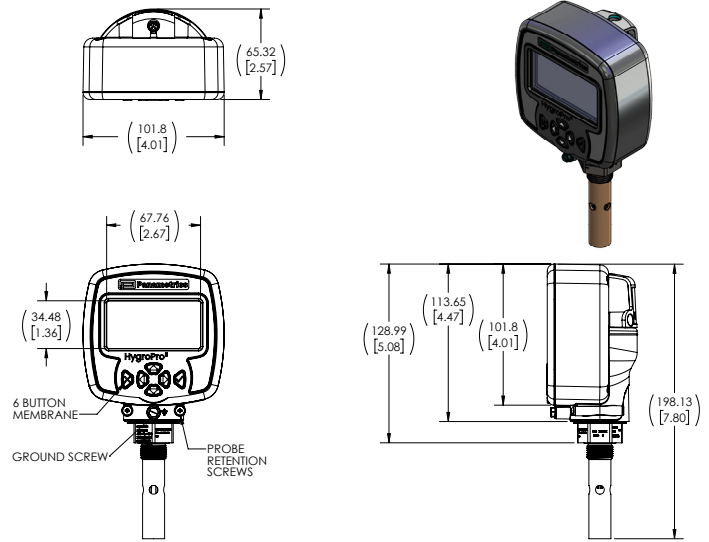
Dimensions

- H x W x D: 7.80 x 4.00 x 2.57 (198 x 102 x 65 mm)
- Weight: 2.75 lbs. (1250 g)

European compliance Complies with EMC Directive 2004/108/EC and PED 97/23/EC for DN<25

Hazardous area certification

- US/Canada: Class I, Division 1, Groups A, B, C and D; T4 Class II, III Division 1, Groups E, F and G; T4 (US Only) Class I, Zone 0, AEx ia IIC T4 Ga
- US/Canada: Class I, Division 2, Groups A, B, C and D; T4 Class II, III Division 2, Groups F and G; T4 Class I, Zone 2, AEx ic IIC T4 Gc (US Only)
- ATEX/IECEX: Ex ia IIC T4 Ga; Ex ic IIC T4 Gc



HygroProII dimensions

Moisture sensor

Sensor type Thin-film aluminum oxide moisture sensor

Calibration Each sensor is individually computer-calibrated against known moisture concentrations, traceable to national standards.

Calibration interval Sensor recalibration by Panametrics is recommended every six to twelve months depending on application.

Flow rate Gases: Static to 100 m/s linear velocity at 1 atm

Built-in temperature sensor

Type NTC thermistor

Operating range -22°F to 158°F (-30°C to 70°C)

Accuracy ±0.9°F (±0.5°C) overall

Response time (maximum) One second in well stirred oil or 10 seconds in still air for a 63% step change in increasing or decreasing temperature

