air.IQ
Moisture analyzer packaged solution

Features
air.IQ simplifies the selection and installation of your moisture analyzer. Install the moisture probe, wire your power and outputs to the terminal strip, and connect your gas to the inlet fitting.
- Wall mounted NEMA 4X package
- Includes the analyzer display, moisture probe, interconnecting cable, and sample system
- Features the dew.IQ moisture analyzer
- The IQ.probe makes installation and start-up easy
- Sample system provides isolation, filtration, pressure and flow indication, pre-wired, and a clear door for easy viewing of all readings

Applications
The standard air.IQ package is designed for moisture measurement in any inert gas application, in industrial environments classified as safe areas, where the process gas pressure is slightly positive to a maximum of 200 psig. It combines the Panametrics dew.IQ and IQ.probe with 50 years of sample system design, to deliver the moisture measurement you have come to trust.
Markets and applications served include:
- Industrial gas
- Air dryer/clean dry air
- Plastics drying
- Pharmaceutical
- Aerospace
- Power generation
Ordering configuration

air.IQ is comprised of the following items:

- DEW.IQ-3-6-1-0
- IQ.PROBE-2-W-0-0-0-0
- 733-1155-00

Application parameters

- Inert gases such as air, nitrogen, SF6
- Sample gas pressure: 0 to 200 psig
- Sample gas temperature: 0 to +50°C
- Moisture content: -110 to +20°C dew/frost point, non-condensing
- Power requirements: 100 – 240 VAC @ 50 – 60 Hz

dew.IQ specifications*

European certification
Complies with EMC directive 2004/108/EC and 2006/95/EC low voltage directive (installation category II, pollution degree II)

Input
Moisture signal from an M series probe or IQ.probe

Analog output
Single internal isolated recorder output, internally optically isolated, 10-bit (0.1%) resolution

Switch-selectable outputs
- 0 to 2 V, 10k Ω minimum load resistance
- 0 to 20 mA, 400 Ω maximum series resistance
- 4 to 20 mA, 400 Ω maximum series resistance
- User-programmable within the range of the instrument and the corresponding sensor or transmitter

Alarm relays
- One fail-safe fault relay
- Two standard form C relays SPDT, rated for 3 A at 250 VAC/30 VDC
- Set to any level within the range of the instrument; programmable from the front panel

Alarm set point repeatability
±0.2°F (±0.1°C) dew point

Datalogger
32 GB capacity with MicroSD card, 2 GB card included

Display
128 x 64 matrix LCD

Display functions
Dew point temperature in °F or °C, ppmv with a constant pressure input, or sensor signals for diagnostics

Power requirements
Universal power 100–240 VAC @ 50–60 Hz
24VDC option available

Temperature
- Operating: −20° to 60°C (−4° to 140°F)
- Storage: −40° to 70°C (−40° to 158°F)

Warm-up time
Meets specified accuracy within three minutes

IQ.probe specifications*

Sensor type
Thin-film aluminum oxide

Dew/frost point temperature
- Overall range capability: −110° to 60°C (−166° to 140°F)
- Standard: −80° to 20°C (−112° to 68°F) with data to −110°C (−166°F)

Calibrated accuracy at 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)

* Refer to dew.IQ and IQ.probe data sheets for complete specification details
**Start-up procedure**

- Insert moisture probe into the sample cell
- Start with the inlet valve and the valve on rotameter fully closed
- For dew points at process pressure, slowly open the inlet valve until fully open; then crack the valve on the rotameter to get flow on scale
- For dew points at atmospheric pressure, fully open the valve on the rotameter; then crack the inlet needle valve on the rotameter to get flow on scale

**Shut-down procedure**

- Slowly close the inlet needle valve
- Slowly open the valve on the rotameter until the pressure on the pressure gauge is 0 psig
- Remove the moisture probe
<table>
<thead>
<tr>
<th>Dwg Item</th>
<th>Internal Ref.</th>
<th>Part No.</th>
<th>Description</th>
<th>Mfg.</th>
<th>Mfg. Part No.</th>
<th>Quantity</th>
<th>Comments</th>
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<td>ENCLOSURE ASSY, FIBREGLASS WITH WINDOW, HINGED COVER, 14&quot;x12&quot;x8&quot;, NEMA/EEMAC Type 4, 4X, 12, 13 CSA File No. 42186: Type 4, 4X, 12, 13, IEC 60529, IP66, UL 508A LISTED, INCLUDES MOUNTING PLATE RAL6033 AND BREATHER GLAND (NEMA 4X &amp; IP66 RATED)</td>
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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.

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