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
- Available with the IQ.probe or with the M Series moisture probe
- Sample system provides isolation, filtration, pressure and flow indication, pre-wired, and a clear door for easy viewing of all readings

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-R-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

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

* Refer to dew.IQ and IQ.probe data sheets for complete specification details

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,

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>ITEM</th>
<th>SALES P#</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>255-184</td>
<td>Needle valve, 5000 psig, 316 SS, 1/4&quot; compression fittings</td>
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<tr>
<td>2</td>
<td></td>
<td>421-1466</td>
<td>HOUSING, SS880 SAMPLE SYSTEM</td>
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<td></td>
<td>410-485</td>
<td>CAP PLUG RED 3/4-16X1/2&quot;</td>
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<td>255-165</td>
<td>PIPE PLUG 1/8 NPTF 316 SS</td>
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<td>421-1468</td>
<td>PLUG, SS880 SAMPLE SYSTEM</td>
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<td>255-160-02</td>
<td>Connector 316 SS, 1/4&quot; compression fitting, 1/8&quot; MNPT</td>
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<tr>
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<td></td>
<td>443-023</td>
<td>Filter element, borosilicate microfiber (replacement for 440-024 filter coalescer)</td>
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<tr>
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<td>410-548</td>
<td>O-RING 0.10400X0.10300X0.03000X0.02000X0.01000X0.00500X0.00250X0.00125X0.00063X0.00031</td>
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<td>255-161-02</td>
<td>Elbow 316 SS, 1/4&quot; compression fittings, 1/8&quot; MNPT</td>
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<td>3</td>
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<td>443-199</td>
<td>Flowmeter Assy, 200 psig, integral inlet flow control valve 2 to 20 SCFH/54 to 540 SLPH, 1/4&quot; compression fittings</td>
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<td>255-161-03</td>
<td>Elbow 316 SS, 1/4&quot; compression fittings, 1/4&quot; MNPT</td>
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<td>418-061</td>
<td>Bracket, Type AA, 3/4&quot; Hole</td>
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<td>4</td>
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<td>443-045-01</td>
<td>1-1/2&quot; pressure gauge, 316 SS, 1/8&quot; NPTM center back mount, range 0-300 psig</td>
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<td>5</td>
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<td>421-2002</td>
<td>Assembly mounting and piping of sample system components onto a white-enamel painted steel plate, 12.76&quot; x 10.88&quot;</td>
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<tr>
<td>6</td>
<td></td>
<td>425-406</td>
<td>NEMA 4X Enclosure, Fiberglass, 14.55'H x 12.50'W x 8.0'D</td>
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<tr>
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<td>Mounting of DEW.IQ on a sample system plate, DEW.IQ should be specified, priced and ordered as a separate item.</td>
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<tr>
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<td>418-200</td>
<td>Mounting Bracket</td>
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<tr>
<td>9</td>
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<td>213-2000</td>
<td>Terminal Strip 15 Position</td>
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<td>213-2001</td>
<td>Terminal Strip Cover</td>
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<td>255-163-04</td>
<td>Bulkhead, Union, 316 SS, 1/4&quot; compression fittings</td>
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<tr>
<td>11</td>
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<td>442-1036</td>
<td>Label, Output</td>
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<td>442-1345</td>
<td>Label, Power Strip</td>
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<td>442-1347</td>
<td>Sample Inlet Label</td>
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<td>442-1355</td>
<td>Sub Component Label</td>
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<td>255-347</td>
<td>Union, Explosionproof, conduit to conduit fitting, 1/2&quot; NPTM TO 1/2&quot; NPTF, CL 1, DIV 1 &amp; 2, Grp A,B,C &amp; D</td>
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<td>15</td>
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<td>412-2028</td>
<td>1/2&quot; Conduit Locknut</td>
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<td>16</td>
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<td>410-516-01</td>
<td>Gasket, PVC, Self Retaining, with steel ring, 3/8&quot; to 1/2&quot;</td>
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<td>17</td>
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<td>413-540</td>
<td>Spacer, Threaded, Aluminum, 6-32, 1/4&quot;</td>
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</tbody>
</table>

**NOTES**

1. REF DWG 733-1155rev2
2. PROCESS CONNS: 1/4" COMPRESSION FITTINGS
3. PROCESS TUBING: 1/8" STAINLESS STEEL TUBING
4. ELECTRICAL CONN. 1/2" NPTF