GE
Measurement & Control

IntertechRio
instrumentação-controle de processo

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dew.IQ
Moisture Analyzer

Features

- Rack, bench, panel, and wall mount configurations

- NEMA 4 weatherproof membrane front display/keypad

- M Series or IQ.probe moisture probe compatible

- Displays moisture content in dew/ frost point and ppmv

- Built-in isolated current or voltage analog output

- Fail-safe fault alarm relay

- Two measurement alarm relays

Applications

This Panametrics single-channel analyzer measures moisture in process gases. Designed for installation in industrial settings, it is used in conjunction with IQ.probe and M Series moisture probes for industries including:

- Industrial gas

- Furnace gas/heat treating

- Power generation
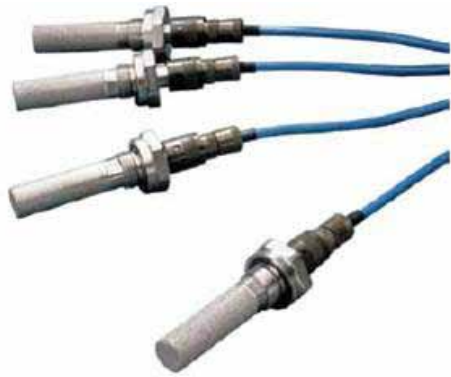
- Air dryer

- Pharmaceutical

- Aerospace

Low Cost, Real-Time Moisture Measurement

The dew.IQ is an economical, single channel, aluminum oxide hygrometer in the IQ Series line of analyzers. It is intended for industrial applications requiring accurate, real-time moisture measurement.

Intelligence Simplified with IQ.probe and M Series Probes

Installing the dew.IQ is highly intuitive. As a field upgrade for its predecessors, the Panametrics MMS35, System 580, Model 600 and 700 or even earlier models, the M Series probe and cable mate to the dew. IQ in minutes, minimizing installation costs. For new installations, the IQ.probe stores its calibration digitally, eliminating the need for shielded cable.

Both the IQ.probe and the M Series moisture probes are rugged and accurate true absolute humidity sensors with calibration traceable to national standards. Exceptional dynamic range, speed of response and calibration stability have made the aluminum oxide sensor the standard for performance and value in industrial moisture measurement for more than 40 years.

Microprocessor-Based Electronics

The microprocessor-based dew.IQ accurately tracks fast-changing process conditions, and displays the moisture content as dew/frost point temperature in °F or °C or as ppmv with a constant pressure input on an LCD. The measurement is also available as an analog output. The dew.IQ features built-in isolation to ensure the integrity of signals to remote devices. The meter also features two Form C alarm relays for high and low moisture limits. The large display and six-button keypad combine to make selection of analog output zero and span, alarm set-points fast and easy, and entry of calibration data simple.

dew.IQ Specifications

Electronics

Intrinsic Safety
External safety barrier for moisture input (optional on M Series Probe)

European Compliance
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, 4 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, or 24 VDC nominal

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

Configurations
Panel (front panel meets Type 4 and IP66)
9.5 inch half-rack
Bench top
Type 4 and IP66 Wall mount

Moisture Measurement

Sensor Type
Thin-film aluminum oxide

Moisture Probe Compatibility
Compatible with all Panametrics M Series
aluminum oxide moisture probes and IQ.probe

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)
Ultra-Low: –110° to –50°C (–166° to –58°F)
High Range Data: –80° to 60°C (–112° to 140°F)

Calibrated Accuracy at 77°F (25°C)
±2°C (3.6°F) from –65° to 10°C (–85° to 50°F)
±3°C (5.4°F) from –80° to –66°C (–112° to –87°F).

Repeatability
±0.5°C (0.9°F) from –65° to 10°C (–85° to 50°F)
±1.0°C (1.8°F) from –80° to –66°C (–112° to
–87°F).

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