



ACCUPOINT 2™

Micro-Processor Based Moisture Transmitter

Industrial Gas

Electronic Gas

Natural Gas

Medical & Aviation

Aerospace & Military

Glove Box

Specialty Gases

Micro-Processor Based Simplicity

Utilizing the time-proven electrolytic process and MEECO's two-wire transmitter design, the Accupoint 2 features micro-processor driven electronics. With the push of a button, choose any one of five display options and a host of output scales. Follow the menu, and adjust both your display and output range as measurement requirements change.

A built-in, dual-stage pressure regulator and an operating pressure range of 50-3000 psig make the Accupoint 2 ideally suited for water vapor determination in most industrial, natural and process gas streams. It functions as a standard 24 VDC, two-wire loop powered transmitter. An optional RS-232 output signal is available when the unit operates in three-wire mode. Housed in a NEMA 4X enclosure, the Accupoint 2 mounts directly at the measurement point – whether indoors or out.

Accupoint 2 Key Features Include:

- ☑ **Units of Measure:** Micro-processor based electronics allow choice of display options including ppmV, ppmW, lbs/mmscf or °C and °F dewpoint.
- ☑ **Three-Button User Interface:** Mode/Enter key, along with simple Up and Down keys, make using the menu quick and simple.
- ☑ **LCD Display:** Integral digital display allows direct indication at point of use and quick field configuration of the control parameters.
- ☑ **Scalable Output:** Flexibility to change output scales in field. No need to replace electronic components. Simply access menu via Mode/Enter key and select output scale.
- ☑ **2-Wire or 3-Wire Modes:** Standard simplicity of a 2-wire, loop powered transmitter or added feature of RS-232 output in a 3-wire mode.
- ☑ **On-line Verification:** Use simple Delta Flow procedure to quickly verify sensor linearity and performance on-line.

Accupoint 2

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| Performance | |
|------------------------------------|---|
| Operating range | 0-1000 ppmV with 0.1 ppm resolution (100cc flow units) 0-5000 ppmV with 1 ppm resolution (10cc flow units) |
| Detection limit (LDL) | 0.5 ppmV |
| Accuracy (greater of) | Standard Cells: 5% of reading or 0.4 ppm, whichever is greater* |
| Operating Temperature | -20°C to +60°C (-4°F to 140°F) |
| User Interface: | 3-key touch pad |
| Display: | 1 line, 16 character alphanumeric LCD 3/8" high digits |
| Display Options: | ppmV, ppmW (requires user input of molecular weight), °C or °F Dew point, and lbs/mmscf (Note: °C and °F Dew point are referenced to atmospheric pressure. Pressure Dew point available with user input of operating pressure). |
| Gas Handling System and Conditions | |
| Gas connections | 1/8" Compression |
| Inlet pressure | 50-3000 psig |
| Flow rate | Sample: 10 sccm or 100 sccm Bypass: 1000 sccm |
| Dimensions | |
| Unit Dimension | H x W x D [in (mm)] 7" (17.8 cm) wide x 4½" (10.8 cm) deep x 8¼" (21.6 cm) high |
| Weight | |
| Unit Weight | 9 lbs. (4.1 kg) |
| Electrical | |
| Alarm indicators | 4-20 mA loop signal (2-wire mode) user field-programmable 4-20 mA non-isolated current sink (3-wire model)(Not CSA Approved) Isolated RS232 in 3-wire mode only (optional-Not CSA Approved) |
| Power requirements | 24 VDC 20% 2-wire loop powered (customer supplied) 24 VDC 10% 3-wire common ground (customer supplied) |
| Maximum Cable Length: | 750' of 24 AWG 2 conductor cable with shield (2-wire) |

* in pure O₂: ± 10% of reading/3 ppm, whichever is greater

Principle of Operation

Based on Faraday's Law of Electrolysis, the Accupoint 2 sensor absorbs and electrolyzes moisture at fractional parts-per-million or parts per billion (ppm or ppb). 100% of the sample moisture is absorbed by a phosphorus pentoxide (P₂O₅) film that covers two spirally-wound electrodes embedded in a hollow glass tube. When the sample gas enters the cell at a known flow rate, the film absorbs all the moisture molecules present. By applying an electrical potential (voltage) to the electrodes, each absorbed water molecule is electrolyzed, generating a finite current. This current is precise and proportional to the amount of absorbed water. It is a direct measurement of the water vapor present in the sample gas.

The Trusted Name In Moisture Analysis. Founded in 1948, MEECO specializes in moisture analyzers used in facilities around the world. We tackle the tough problems, such as natural gas pipelines, where instruments are often subject to physical abuse, corrosives and serious contaminants. We're proud to report, the MEECO name is synonymous with moisture analysis.

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