ACCUPOINT LP 2™
Micro-Processor Based Low Pressure Moisture Transmitter

Industrial Gas | Electronic Gas | Natural Gas | Medical & Aviation | Aerospace & Military | Glove Box | Specialty Gases

Micro-Processor Based Simplicity

Whether checking moisture in bulk gas trailers prior to filling or measuring a sample stream after the process pressure reduction, the Accupoint LP2 sets a new standard. For low process pressure (5-100 psig) applications, it delivers reliable moisture measurement in industrial, natural, and process gas streams.

Micro-processor driven electronics allow flexibility and ease of use. With the push of a button, choose any one of five display options and a host of output scales. Follow the menu and adjust your display and output range as measurement requirements change.

The Accupoint LP2 functions as a standard 24 VDC, two-wire loop powered transmitter. An RS-232 output signal becomes an option when the unit operates in three-wire mode. Housed in a NEMA 4X enclosure, the Accupoint LP2 mounts directly at the measurement point – whether indoors or out.

Accupoint LP2 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.
- ☑ **Scaleable 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.
- ☑ **Low Pressure Operation:** Designed specificially for the low (3-100 psig) sample gas pressures of many processes.
- ☑ **On-line verification:** Use simple Delta Flow procedure to quickly verify sensor linearity and performance on-line.

Accupoint LP2

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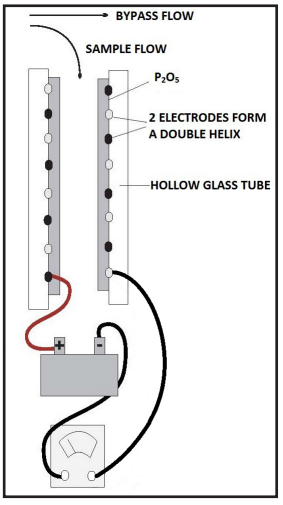
Performance	Accupoint LP2
Operating range	0-1000 ppmV with 0.1 ppm resolution (100cc flow units) 0-5000 ppmV with 1 ppm resolution (10cc flow units)
Detection limit (LDL)	1 ppmV
Accuracy (greater of)	Standard Cells: 5% of reading or 0.4 ppm, whichever is greater*
Operating Temperature	-20°C to +60°C (-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	5-100 psig
Flow rate	Sample: 10 sccm or 100 sccm Bypass: 1000 sccm
Dimensions	**H x W x D [in (mm)]**
Rack Mount	19" x 17" x 7" (48.3 cm x 43.2 cm x 17.8 cm)
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 LP 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 (P_2O_5) 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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