



# ACCUPOINT LP2™

## MICRO-PROCESSOR BASED LOW PRESSURE MOISTURE TRANSMITTER

### 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.

### Principle of Operation

Based on Faraday's Law of Electrolysis, the Accupoint LP 2's sensor absorbs and electrolyzes moisture to fractional parts-per-million (ppm).

**How:** One hundred percent of the sample moisture is absorbed by a hygroscopic film that covers two spiral 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.

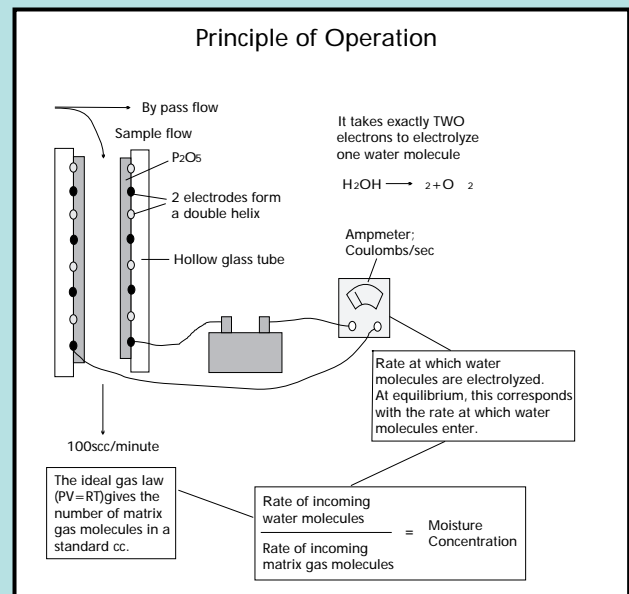
### Accupoint LP2 Key Features Include:

**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.



### Moisture In = Current Out



**LCD Display:** Built-in 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. 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 specifically 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.

**Approvals Pending Testing:** FM, CSA, Cenelec and CE Mark approvals.

<b>Specifications</b>	
<b>Accupoint LP2™ Features:</b>	Stable value indication 2-wire or 3-wire operation (jumper setable)
<b>User Interface:</b>	3-key touch pad
<b>Display:</b>	1 line, 16 character alphanumeric LCD 3/8" high digits
<b>Display Options:</b>	ppmV, ppmW (requires user input of molecular weight), °C or °F dewpoint, and lbs/mmscf <i>(Note: °C and °F dewpoint are referenced to atmospheric pressure. Pressure dewpoint available with user input of operating pressure).</i>
<b>Power:</b>	24 Vdc ±20% 2-wire loop powered (customer supplied) 24 Vdc ±10% 3-wire common ground (customer supplied)
<b>Output Signal:</b>	4–20 mA loop signal (2-wire mode) user field programmable 4–20 mA non-isolated current sink (3-wire mode) Isolated RS232 in 3-wire mode only (optional)
<b>Inlet Pressure Range:</b>	5–100 psig
<b>Operating Temperature:</b>	-20°C to +60°C (-4°F to 140°F)
<b>Accuracy:</b>	Standard Cells: ±5% of reading or 0.4 ppm, whichever is greater Low Range "Z" Cells: ±3% of reading or 0.1 ppm, whichever is greater
<b>Ranges:</b>	0–1000 ppmV with 0.1 ppm resolution (100cc flow units) <i>(Note: 0–20 ppmV maximum recommended for "Z" type cells)</i> 0–5000 ppmV with 1 ppm resolution (10cc flow units)
<b>Maximum Cable Length:</b>	750' of 24 AWG 2 conductor cable with shield (2-wire)
<b>Fittings and Connections:</b>	1/8" Compression
<b>Weight:</b>	10 lbs (4.53 kg)
<b>Lower Detection Limits:</b>	Standard Cells: 1 ppmV "Z" Cells: 0.5 ppmV
<b>Flow Rate:</b>	Sample: 10 sccm or 100 sccm Bypass: 1000 sccm
<b>Approvals:</b>	CE Marked Pending Testing: Class 1, Division 1.
<b>Gas Compatibility:</b>	Consult Factory

**The Trusted Name In Moisture Analysis.** Founded in 1948, MEECO specializes in moisture analyzers used in countless 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. In the gas industry, we're proud to report, the MEECO name is synonymous with moisture analysis.



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