



ACCUPOINT 2™

MICRO-PROCESSOR BASED MOISTURE TRANSMITTER

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.

Principle of Operation

Based on Faraday's Law of Electrolysis, the Accupoint 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.

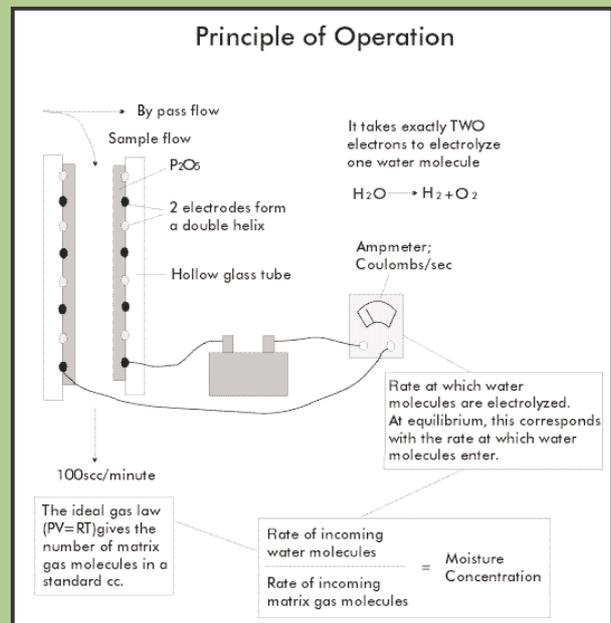
Accupoint 2™ Key Features Include:

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.



Moisture In = Current Out



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.

On-Line Verification: Use simple Delta flow procedure to quickly verify sensor linearity and performance on-line.

Specifications

Accupoint 2™ Features:	Stable value indication 2-wire or 3-wire operation (jumper setable)
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 dewpoint, and lbs/mmscf (Note: °C and °F dewpoint are referenced to atmospheric pressure. Pressure dewpoint available with user input of operating pressure).
Power:	24 Vdc ±20% 2-wire loop powered (customer supplied) 24 Vdc ±10% 3-wire common ground (customer supplied)
Output Signal:	4–20 mA loop signal (2-wire mode) user field programmable 4–20 mA non-isolated current sink (3-wire mode) (Not FM Approved) Isolated RS232 in 3-wire mode only (optional-Not FM Approved)
Inlet Pressure Range:	50–3000 psig
Operating Temperature:	-20°C to +60°C (-4°F to 140°F)
Accuracy:	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
Ranges:	0–1000 ppmV with 0.1 ppm resolution (100cc flow units) (Note: 0–20 ppmV maximum recommended for "Z" type cells) 0–5000 ppmV with 1 ppm resolution (10cc flow units)
Maximum Cable Length:	750' of 24 AWG 2 conductor cable with shield (2-wire)
Fittings and Connections:	1/8" Compression
Weight:	9 lbs. (4.1 kg)
Lower Detection Limits:	Standard Cells: 1 ppmV "Z" Cells: 0.5 ppmV
Flow Rate:	Sample: 10 sccm or 100 sccm Bypass: 1000 sccm
Approvals:	CSA Approved, FM Approved, Class 1, Division 1, Intrinsically safe with barrier in 2-wire mode only; CE Marked. Pending Testing: ATEX
Gas Compatibility:	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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2.5 5/04 PRINTED IN U.S.A