

PPM1

Low Cost, Trace Moisture Analyzer

The Edgetech Instruments PPM1 is a trace moisture analyzer for monitoring dew/frost point and ppmv water vapor in gases.

The PPM1 is a modular, remotely mounted hygrometer configured to meet your moisture measurement application requirements.

The PPM1 uses an electrolytic, phosphorus pentoxide sensor in combination with a proprietary semi permeable diffusion membrane. The principle of operation applies Faraday's Law of Electrolysis to determine the water vapor content by measuring the dissociation current needed to electrolyze the water molecules in the sample.

The PPM1 is packaged in an IP66/67, NEMA 4 plastic enclosure and comes complete with two FORM A relay alarms, two analog current outputs and a RS-232 bi-directional serial interface.

All Edgetech Instruments hygrometers are manufactured and supported in the USA in a modern, ISO 9001:2015 registered, ISO/IEC 17025:2005 accredited facility. All calibrations and certifications are traceable to NIST.



The PPM1 Trace Moisture Analyzer

Features:

- Precise, trace moisture measurement
- Range: 0.1 to 1250 PPMv
- NIST traceability calibration certificate
- Fundamental measurement principle
- Compact, low cost solution
- Remote sensor can be installed at process take-off point
- Standard sample ports are 1/4 inch compression fittings
- Optional VCR sample ports
- May be configured for flow-thru or diffusion sampling

Applications:

- Air separation and cylinder trans-fill
- Glove box/isolation chamber
- Semiconductor fabrication
- Pharmaceutical storage
- Pharmaceutical processes
- Inert gas purity
- MAP systems
- Power and energy systems

[Click here](#) for the PPM1 Application note



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ISO/IEC 17025:2005 Accredited
ISO 9001:2015 Registered

Technical Specifications

Sensor Type

Electrolytic phosphorous pentoxide sensor (P_2O_5)
on ceramic wafer

Measuring Range

Trace Moisture: 1250 to 0.1 PPMv

Dew/Frost Point: $-20^{\circ}C$ to $-95^{\circ}C$

Accuracy

$\pm 5\%$ of PPMv reading

Response Time

90% of step change, one minute, typical

Hysteresis

None

General

Display: 2 Line LCD backlit

Operating temperature: $32^{\circ}F$ to $122^{\circ}F$ ($0^{\circ}C$ to $50^{\circ}C$)

Sample connection: 1/4" compression fitting,
standard model configured for positive pressure

Sample Flow Rate: 0.5 to 5 SCFH, regulated

Sample Pressure: 0 to 200 psig, regulated

Sensor Housing: 316 SS, flow thru head, 1/4 Inch
compression fittings, VCR optional

Sampling Options: May be configured for diffusion
sampling for glove box or isolation chamber

Power & Outputs

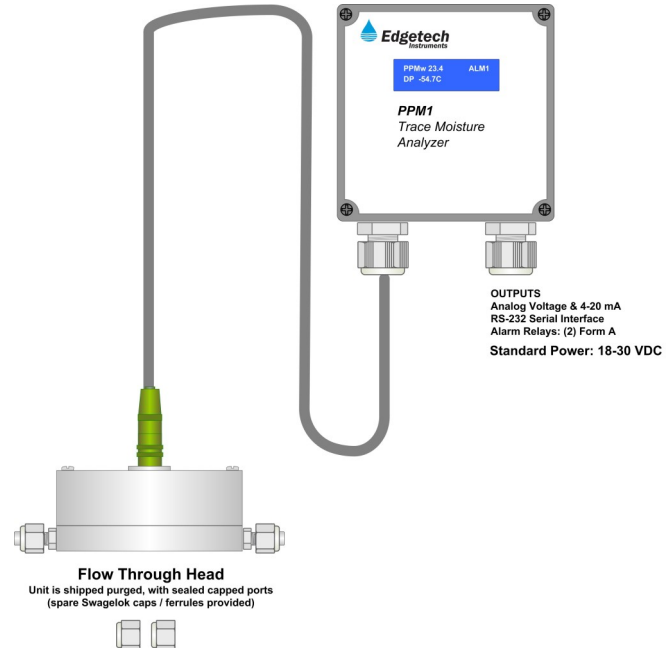
Power: 18 to 30 Vdc, unregulated, 1 A max

Outputs:

Analog: two, 4 to 20 mA, scalable by user

Alarm: two dry alarm relays, FORM A,
adjustable by user

Digital: RS-232 serial, bi-directional



Weights & Dimensions

Weight: 4 lb. (1.81 kg)

Environmental: Plastic IP66/67, NEMA
4 case

Dimensions:

5.1" L x 3" W x 5.1" D

(13 cm L x 7.6 cm W x 13 cm D)

Options

Vacuum pump for sample extraction

VCR male or female ports

Sensor mounting bracket for diffusion
sampling



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