

Absolute Moisture Analyzer

Portable / Tabletop Model : DP - 152



Protects **Personnel, Plant
& Assets**



FAST & DIRECT READOUT OF MOISTURE CONTENT IN CHLORINE & OTHER CORROSIVE (HCL, H₂SO₄, SO₂, Etc.) EXPLOSIVE (H₂, HYDROCARBON GAS, VAPORS) AND INERT GASES (N₂, ARGON, AIR Etc.)

TECHNOLOGY

HNL's DP - 152, this fully microprocessor controlled, precision moisture analyser is a high technology solid state unit, designed to operate in rough field service. It is available as a portable, rack / panel mounting or field mounted 3 wire transmitter versions. The high quality LCD-display shows the moisture in PPM or dew point temp. A dual enclosure assembly isolate the electronic from the flow system and protects it from damage. A leak may occur in the sampling system, so sampling system is preferably installed close to sample port for fast and accurate measurement.

Field proven electrolyte technology provides accurate & reliable measurement without field calibration based on Faraday's Law of Electrolysis. Sensor absorbs and electrolyzes moisture down to fractional PPMs. The sensor contains a highly hygroscopic solid electrolyte that absorbs moisture present in the sample and creates an electrolysis current proportional to the moisture content.

Data of the gas flow rate and the current in the cell gives an absolute measure of the moisture contained in the sample gas. The sensor is suitable for almost all corrosive & other harsh gases. The materials in contact with the sample are selected to suit the application and it could be Teflon, glass, Platinum, rhodium.

Special transfer of the sample-gas through the sensor provides fast response and minimizes the tailing effect. This benefit is especially important when monitoring low PPM concentration. Sensor is a regeneratable and can be expeditiously replaced at site.

SPECIAL FEATURES

- Calibration - free accuracy
- Compatible with most gases / vapours
- Designed for rough field use
- High quality LCD-display
- Direct PPM moisture measurement
- Fast response, very high sensitivity
- Zero/span - calibration, regeneratable sensor

APPLICATIONS

- Chlorine & other harsh gases
- Chemical manufacturing
- Industrial speciality gases
- Heat treating furnaces, compressed air
- Metallurgy, energy management
- Inert atmosphere blanketing
- Monitoring natural gas pipe lines

HNL Systems Pvt. Ltd.

Administrative & Sales Office: 25/N, Laxmi Industrial Estate, New Link Road, Andheri (W), Mumbai – 400 053, India. Tel : +91 22 4295 2180 / 81.

www.hnlsystems.com | sales@hnlsystems.com | <https://www.facebook.com/HNLSYS>

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P2O5 (PHOSPHORUS PENTAOXIDE) SENSOR



P2O5 catalytic sensor for
direct moisture measurement

SPECIFICATIONS

Type	Portable / Table top
Features:	Accurate, compatible with all gases (including corrosive and explosive gases), vapours, high sensitivity, regeneratable sensor, rugged.
Detectable gases / parameters	Absolute moisture in air & gases (including corrosive gases)
Electronics / processor	Micro-controller
Power supply	Rechargeable battery with charger
Display	Alpha numeric LCD (LED optional)
Output	RS 232, Data logging
Sensor technology	Phosphorous pentaoxide (P ₂ O ₅)
Range resolution	Moisture 0 - 10 / 100 / 1000 / 2000 PPM or DP -80°C to 0°C
Accuracy	± 2%
Response time	90% within 60 sec.
Operating temperature	0 - 55 °C
Sampling / input	Direct plug-in
Housing / case	Plastic
Included accessories	Sampling systems, data logger & RS 232
Optional accessories	N/A
Applications	Moisture measurement in gases, Chemicals, Heat treatment Furnaces, Compressed air, Chlorine, plant
Industries	Chemical Industry, Speciality gas manufacturers, Furnace manufacturers, Chlorine plants

OTHER SPECIFICATIONS

Sensitivity	0.1 PPM
Sample connections	1/8 in. Tube
Sample pressure	0.25 to 10 Bar
Sample flow	100 cc/min - controlled
Sensor body	S/S 316, Teflon, Hastelloy, Monel, Glass Optional
Weight	1.25 Kg approximately
Dimensions	175 X 65 X 197 mm Approximately

Note : Specifications and Features will vary with application. Due to HNL's commitment to research, design and product improvement, specifications are subject to change without notice.

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