



MODEL 430DPL

PROCESS HYDROGEN AND DEW POINT ANALYZER

APPLICATIONS

For continuous analysis of hydrogen and dew point in a process gas stream such as heat treating and hydrogen/nitrogen atmospheres.



430DPL-RM



430DPL-N4

FEATURES

- High accuracy
- Digital readout
- Fast response
- Easy to operate
- Long life thermal conductivity H₂ detector cell
- Long life ceramic dew point sensor
- Standard range of -148° to 68°F dew point (°C version also available)
- Built in sample pump or pressure regulator
- Voltage and current outputs
- H₂ and dew point alarms, low flow alarm and isolated outputs available
- Sample conditioning systems available for most applications
- Available in panel mount, wall mount, rack mount and explosionproof versions
- Cabinet purge system available for use in hazardous areas

NOVA ANALYTICAL SYSTEMS INC.

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DESCRIPTION

The heart of the 430DPL analyzer is the Nova H₂ thermalconductivity cell, which consists of two chambers. In one chamber, sample gas is allowed to flow through while the other chamber is usually sealed in air. In each chamber, a very sensitive glass coated thermister is installed which is in turn connected to a wheatstone bridge measuring circuit. A pre-amplifier is mounted on top of the cell. When the cell is energized, each thermister heats up and radiates its heat into the surrounding gas.

Hydrogen conducts heat away from a heated object at a rate much greater than air. As soon as a gas with a thermalconductivity greater than air enters the sample chamber, the wheatstone bridge will immediately sense the temperature change on the sample chamber thermister. This will result in an output change which will be an indication of the amount of the hydrogen in the sample gas.

For dew point, the 430DPL has a capacitive ceramic sensor. The output of this sensor is directly proportional to the dew point of the sample gas.

After the sample gas has been analyzed for H₂ and dew point, both signals are amplified and displayed on digital meters and are provided as voltage or current outputs for recording.

SPECIFICATIONS

DESCRIPTION	
Method of Detection:	Temperature controlled thermalconductivity cell for hydrogen. Capacitive ceramic sensor for dew point.
Ranges Available:	0-2, 0-5, 0-10, 0-20, 0-50 and 0-100% Hydrogen. -148° to 68°F (-100° to 20°C dew point)
Readout:	LED digital
Accuracy:	± 1% of F.S.
Resolution:	0.1% H ₂ , 1° dew point
Maximum Drift:	Zero and Span ± 1% of F.S. per week
Temperature Range:	32° to 122°F (0° to 50°C)
Power:	115 VAC 60 Hz ± 10 VAC or 220-240 VAC 50 Hz
Sample Flowrate:	1 LPM
Linearity:	Within .5% F.S.
Output:	Non isolated 4-20 ma standard. Voltage outputs and isolated 4-20 ma outputs are available.
Enclosures:	NEMA 4 (Model 430DPL-N4) NEMA 12 (Model 430DPL-N12) Panel Mounted (Model 430DPL-PM) Rack Mounted (Model 430DPL-RM)
Size:	NEMA 4: 16"W x 20"H x 8"D (40 x 50 x 20 cm) Panel Mounted: 17"W x 5-1/2"H x 13"D (43 x 14 x 33 cm) Rack Mounted: 19"W x 5-1/4"H x 15"D (48 x 13 x 38 cm)

Nova reserves the right to specification changes which may occur with advances in design without prior notice.

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