

HCD4000™ HYDROCARBON DEWPOINT ANALYZER

KEY FEATURES

- Fast and continuous
- No calculation or model errors
- Gas quality assurance through first principle measurement of dewpoint temperature
- Detects hydrocarbons versus moisture or glycol
- Automated online measurement
- Works at line pressure
- No moving parts, simple operation
- No carrier gas, no replacement parts
- CEIRS™ optical technique is very sensitive but is not harmed by aerosols, slugs, contaminants

SpectraSensors HCD4000™ Hydrocarbon Dewpoint Analyzer has an accuracy of $\pm 0.5^\circ\text{C}$ and it can discriminate hydrocarbon dewpoint from moisture or glycol. The analyzer uses "Chilled Evanescent IR Spectroscopy" or CEIRS™. The patented technique is very simple and robust and can optically discriminate hydrocarbon liquids from other liquids.

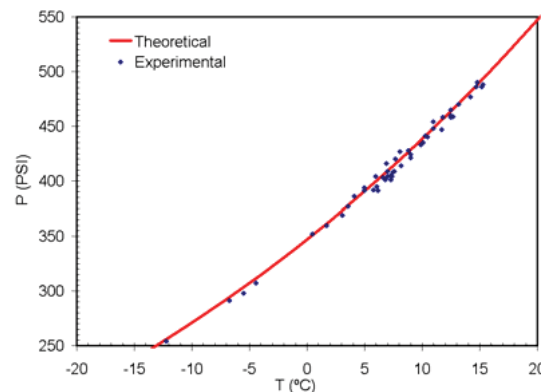
SPECIFIC The HCD4000™ will display the dewpoint temperature and indicate whether it is hydrocarbon or not.

RELIABLE The CEIRS™ method utilizes a highly inert ceramic sensor element and is immune to contamination. The IR light does not travel through any gas so there are no false signals due to particulate scattering. Therefore the analyzer is very robust and requires little maintenance.

FAST AND EASY The HCD4000™ is designed for remote operation at line pressure up to 2000psi. The dewpoint temperature is updated every 2-8 minutes and the gas runs continuously.



PRECISE AND REPEATABLE This chart shows the correlation between the measured and theoretical dew points in a gas sample. The instrument performs with very low uncertainty.



HCD4000

Hydrocarbon Dewpoint Analyzer

SPECIFICATIONS

Performance

Dewpoint Measurement Range	90°F (50°C) below ambient, higher range optional
Lowest	-13°F (-25°C)
Dewpoint Accuracy	<±0.9 °F (<±0.5 °C)
Measurement Time	12-20 minutes typical



Application Conditions

Operating Temperature	14 to +104 °F (-10 to +40 °C)
Storage Temperature	-4 to +131 °F (-20 to +55 °C)
Flow Rate	0.005-0.1 SCFM (0.1-3 SLPM)
Pressure	2,000 PSIG (0-140 barG)

Electrical & Communications

Input Voltage	85-264VAC (47-63Hz); or 18-30VDC optional
Power Usage	100 W Max, <50 W average (depends on ambient temperate)
Signal Outputs	Qty 4 4-20mA loop, RS232 and RS485, 2 DO Relays
Protocol	Modbus Gould RTU, Daniel RTU
Display	Dewpoint, Cell Temperature and Pressure, Modes & Errors
PC Software	SpectraSensors AMS100™ Enables system config, autopoll, history, data export, etc.

Certification

Hazardous Location	CSA Class I, Division 1, Groups C&D, T6
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Physical

Size	420mm (17 in) X 575mm (22.25 in) X 300mm (12 in)
Weight	45kg (100 lb)