

# 203 Series

## PORTABLE LOW RANGE DEW POINT ANALYZER









#### **APPLICATIONS**

For checking lower range dew points of air, hydrogen/nitrogen atmospheres, or other dry process gases.

#### **FEATURES**

- Low range of -112° to +68°F (or -80° to +20°C) Dew Point
- · Easy to operate; long-life sensor
- Fast warm-up and response
- Use on any non-corrosive industrial gases or air
- · Built-in sample pump, filter, and flow meter
- Blocking solenoids used to trap low DP gas in cell for quick purge down and to protect cell when not in use, or during initial sample line purge
- Touch-screen display of gas readings
- · Rechargeable battery operation
- Suitcase style case with choice of display locations

#### **OPTIONS**

- 4-20mA recorder output
- Built-in sample pump or pressure regulator
- Data logging
- Type 'K' suitcase style cabinet, internal display
- Type 'KX' suitcase style cabinet, external display



203K - standard suitcase enclosure (K)



203KX - suitcase enclosure with external display (KX)

#### **DESCRIPTION**

The Model 203 Series Portable Dew Point Analyzers have been designed primarily for accurate dew point measurement of dry non-corrosive industrial gases, or dry oil-free air. The aluminum oxide sensing element varies its electrical capacitance in direct proportion to variations in the sample gas dew point.

The 203 Series can have either a built-in pressure regulator for positive pressure samples, or a built-in sample pump for atmospheric pressures, or both. The sample flow is shown on a flowmeter on the front or top panel. The dew point is shown on a touchscreen display. A 4-20mA output is optionally available. Some models have rechargeable battery operation. Please contact Nova for the correct version for your application.

### **SPECIFICATIONS**

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

Description	
Method of Detection:	Aluminum oxide capacitance sensor
Ranges Available:	-112° to +68°F (-80° to +20°C) (other ranges available on special order)
Resolution:	1°F Dew Point (1°C)
Accuracy and Repeatability:	$\pm$ 1°F from -76° to +68°F Dew Point; $\pm$ 2°F from -112° to -76°F $\pm$ 1°C from -60° to +20°C Dew Point; $\pm$ 2°C from -80° to -60°C
Drift:	± 1°F Dew Point max. for temperatures between -20 to +40°F ± 0.5°C Dew Point max. for temperatures between -29 to +4°C
Response Time (T-90):	Less than 30 seconds at higher dew points; Lower dew points may take up to 1 minute (sensor must be in pre-dried state)
Ambient Temperature Range:	0° to 120°F (-18° to 50°C)
Linearity:	± 2°F / C over measurement range
Size and Weight:	K style - approx. 14" W x 6" H x 6½" D @ 12 lbs (35 x 15 x 17 cm @ 5.5 kg)
Power:	115VAC 60 Hz for recharging (230VAC 50 HZ also available)
Output:	4-20mA

#### UNIQUE APPLICATIONS

The 203 Series should not be used to measure dew points when trace amounts of acidic gases such as sulfur dioxide (SO<sub>2</sub>), sulfur trioxide (SO<sub>3</sub>), chlorine (Cl<sub>2</sub>), hydrogen chloride (HCl), or ammonia (NH<sub>3</sub>) are present. All Nova analyzers are built using proven technologies and techniques. If this product does not suit your application, please contact Nova at 1-800-295-3771. In many cases, we are able to build an analyzer specific to your needs.



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