



Dependable Gas Analysis Solutions

253 SERIES

CONTINUOUS ANALYZER FOR LOW RANGE DEW POINT



APPLICATIONS

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

FEATURES

- Low range of -112° to $+68^{\circ}\text{F}$ (or -80° to 20°C) dew point
- Rugged design that is easy to operate
- Use on any non-corrosive industrial gases or air
- Long-life dielectric ceramic sensor
- Can be calibrated in the field
- Bright digital readout
- Built-in sample pump or pressure regulator, and filter
- 4-20 mA output, non-isolated
- NEMA 12 enclosure standard

OPTIONS

- High or low dew point alarm with LED on panel
- 0-1VDC or isolated 4-20mA recorder outputs
- Corrosion resistant wall mount enclosure
- NEMA 4 or 4X, and rack mount enclosures available

CALIBRATION

- On analyzed dry nitrogen for low setting
- On known, current ambient air dew point for span
- Alternatively, it can be returned to Nova for a certified calibration



Wall Mounted NEMA 12 (N12) Enclosure
Model 253N12



Wall Mounted NEMA 4 (N4) Enclosure
Model 253N4



Rack Mount (RM) Enclosure
Model 253RM

NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

DESCRIPTION

The Nova 253 Series Continuous Analyzers for Low Range Dew Point have been designed primarily for accurate dew point analysis of heat treating atmospheres, instrument air, or other applications which may have typical dew points that are lower than what can be read by standard dew point analyzers, such as the Nova 257 Series. For analysis of dry non-corrosive industrial gases, or dry oil-free air. The dielectric ceramic sensor provides stable and accurate measurements and is not affected by most gas compositions, except those containing ammonia or corrosive gases such as SO₂, SO₃, and HCl.

A built-in sample pump draws in samples that are at or near atmospheric pressure. Alternatively, a regulator can be supplied where the sample gas is under pressure. The sample flow is shown on a small rotameter with flow control valve. The analyzer reads the dew point continuously and displays it on a bright digital display.

MODELS

- 253N12 - NEMA 12 dust tight (IP52)
- 253N4 - NEMA 4 waterproof (IP65)
- 253N4X - NEMA 4X corrosion-resistant (IP65)
- 253RM - Rack mount. Includes 3ft (91 cm) flexible stainless steel sample line

SPECIFICATIONS

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

Description	
Method of Detection:	Dielectric ceramic sensor that changes capacitance with moisture variation
Ranges Available:	-112° to +68°F (or -80° to +20°C), other ranges available on special order
Resolution:	1°F Dew Point (1°C)
Accuracy and Repeatability:	± 1°F Dew Point from 0 to 68°F; ± 2°F Dew Point from -112 to 0°F ± 1°C Dew Point from -17 to 20°C; ± 2°C Dew Point from -80 to -17°C
Drift:	± 2% of full scale per month maximum
Response Time (T-90):	Less than 60 seconds to T90 at higher dew points Lower dew points may take several hours to dry down from ambient air levels
Ambient Temperature Range:	0° to 120°F (-18° to 49°C)
Linearity:	± 1°F Dew Point from 0 to 68°F; ± 2°F Dew Point from -112° to 0°F ± 1°C Dew Point from -17 to 20°C; ± 2°C Dew Point from -80° to -17°C
Size and Weight:	N12 & N4 style - approx. 14" H x 12" W x 8" D @ 10 lbs (25 x 30 x 15 cm @ 4.5 kg) RM style - approx. 19" W x 5.5" H x 14" D @ 15 lbs (35 x 15 x 26 cm @ 6.8 kg)
Power:	115VAC 60 Hz for recharging (230VAC 50 HZ also available)
Output Options:	0-1VDC or isolated 4-20 mA outputs

UNIQUE APPLICATIONS

The 253 Series may not be appropriate for use when ammonia or other corrosive gases 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.



NOVA ANALYTICAL SYSTEMS
A UNIT OF TENOVA GOODFELLOW INC.

IN USA:
1925 Pine Avenue • Niagara Falls, NY • 14301
Tel: 1-800-295-3771 • 716.285.0418 • Fax: 716.282.2937
IN CANADA:
270 Sherman Avenue North • Hamilton, ON • L8L 6N5
Tel: 905.545.2003 • Fax: 905.545.4248
email: sales@nova-gas.com
websales@nova-gas.com



www.nova-gas.com