

NOVA

Dependable Gas Analysis Solutions

430 SERIES PROCESS HYDROGEN ANALYZER



APPLICATIONS

For continuous analysis of up to 100% hydrogen (H₂) in process gas streams. Also recommended for other applications such as H₂ cooled generators, electrolysis units, refinery gas, heat treating atmospheres, blast furnace gas, and many more.

FEATURES

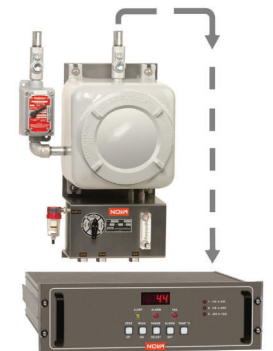
- Best value continuous H₂ analyzer
- Bright digital readout, 4 - 20 mA output
- Long life thermal conductivity (TC) detector with high accuracy and repeatability, cannot be burned out from loss of flow
- Fast response (T90 - 10 to 15 seconds)
- Easy-to-maintain modular layout
- Built-in sample pump or pressure regulator
- Sensor temperature controlled for maximum stability

OPTIONS

- Hi/Low gas, low flow, and diagnostic alarms available
- Isolated 4-20mA, RS232, RS485, MODBUS®, and Ethernet outputs available
- Cabinet purge system available for use in hazardous areas
- Full automatic calibration with touch screen LCD display
- Cold weather package for operation to -5°F (-20°C)
- Cabinet coolers can be fitted to most models
- High temperature filters and probes



Explosion-Proof
(N7MC) Enclosure



Ex-Proof Detector Enclosure
Rack Mount Control Enclosure
(RMN7)



Wall Mount (N4)
NEMA 4 Enclosure



Wall Mount (N4X)
NEMA 4X Enclosure

CALIBRATION

- Nitrogen or air for zero
- Span using a known H₂ in nitrogen calibration gas.

NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

DESCRIPTION

The Nova 430 Series Process Hydrogen analyzer utilizes a temperature-controlled, thermal conductivity (TC) cell for the detection of H₂ in process gas. This cell produces a small millivoltage output which is directly proportional to the H₂ detected. This output is then amplified and displayed on a digital readout meter and can also be available as an output for recorders, loggers, etc. The analyzer can be supplied with a pump or pressure regulator depending on customer requirement.

MODELS

There are five types of mounting configurations available. All tubing connections are 1/4" SS FPT.

- 430N4 - Wall mounted NEMA4 (IP65) enclosure rating
- 430N4X - Wall mounted corrosion-resistant NEMA4X (IP65) enclosure rating
- 430RM - 19" (483mm) rack mounted, on sliding rails
- 430N7MC: Wall mounted NEMA7 UL/CSA explosion-proof with non-intrusive magnetic calibration, meets Class 1 Div 1 Group BCD rating
- 430RMN7: Wall mounted NEMA7 sensor housing with rack mounted control cabinet (two separate enclosures)

SPECIFICATIONS

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

Description

Method of Detection:	Temperature-controlled TC cell. Expected life in excess of 10 years. Cell cannot be burned out due to loss of sample flow.
Ranges Available:	Any range between 0-2.0% and 0-100.0% H ₂
Resolution:	0.1% H ₂
Accuracy and Repeatability:	±1% of full scale
Drift:	Less than 1% of full scale per month
Response Time (T-90):	10-15 seconds to 90% step change
Ambient Temperature Range:	32-122°F (0-50°C). Lower temperatures (-5°F, -20°C) with Cold Weather Package. Dew point should be at least 9°F (5°C) below lowest sample temperature.
Linearity:	±1% of full scale
Size and Weight:	Dimensions will vary depending on enclosure style and options required
Power:	115VAC 60Hz (220VAC 50Hz available)
Output Options:	4-20ma into 500 ohms non-isolated standard Isolated 4-20mA, RS232, RS485, MODBUS®, Ethernet outputs optional
Alarms:	High and/or low alarm contacts available, relay contacts SPDT 5A @ 220VAC rating.

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UNIQUE APPLICATIONS

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



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