

NOVA

Dependable Gas Analysis Solutions



410 SERIES PROCESS OXYGEN ANALYZER

APPLICATIONS

For continuous analysis of oxygen (O_2) in process gas streams. Also recommended for other applications such as O_2 enrichment of combustion air, flue gas analysis, oxygen deficiency analysis, and many more.

FEATURES

- Best value continuous O_2 analyzer
- Bright digital readout
- Long life electrochemical O_2 sensor
- Fast response (T90 - 6 to 8 seconds)
- Microprocessor control with push button calibration
- Explosion-proof version has magnetic calibration
- Easy-to-maintain modular layout
- Built-in sample pump or pressure regulator
- 4 - 20 mA output

OPTIONS

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

CALIBRATION

- Nitrogen for zero
- Air or analyzed calibration gas for span



Explosion-Proof (N7MC) Enclosure
Model 410N7MC



Wall Mount (N4) Enclosure
Model 410N4

NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

DESCRIPTION

The Nova 410 Series represent Nova's best value in continuous process O₂ analysis. This analyzer utilizes a long-life electrochemical 'fuel cell' sensor for the detection of oxygen in process gases. This sensor is unaffected by most other gases in the sample including acidic gases such as carbon dioxide (CO₂), hydrogen sulfide (H₂S), and sulfur dioxide (SO₂). The sensor produces a small millivoltage output which is directly proportional to the oxygen detected. The output is then amplified and displayed on a digital readout meter and can also be sent to an optional recorder output. The 410 can be supplied with sampling pump or pressure regulator to suit most applications.

MODELS

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

- 410N4 - Wall mounted NEMA4 (IP65) enclosure rating
- 410N4X - Wall mounted corrosion-resistant NEMA4X (IP65) enclosure rating
- 410RM - 19" (483mm) rack mounted, on sliding rails
- 410N7MC: Wall mounted NEMA7 UL/CSA explosion-proof with non-intrusive magnetic calibration, Class 1 Div 1 Group BCD
- 410RMN7: 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: | Customer replaceable electrochemical 'fuel cell' O ₂ sensor. Expected life is 3 to 5 years depending on measurement concentrations. |
| Ranges Available: | Any range from 0-2.0% to 0-90.0% O ₂ |
| Resolution: | 0.1% O ₂ |
| Accuracy and Repeatability: | Below 30% O ₂ ±1% of full scale; above 30% O ₂ ±2% of full scale |
| Drift: | Less than 2% of full scale per month. |
| Response Time (T-90): | 6-8 seconds to 90% step change |
| Ambient Temperature Range: | 32-122°F (0-50°C). Lower temperatures (-5°F, -20°C) with Cold Weather Package. |
| 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. Low flow alarm optional |

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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.



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