

NOVA

Dependable Gas Analysis Solutions



48I SERIES

CONTINUOUS PROCESS INFRARED ANALYZER FOR CARBON MONOXIDE

APPLICATIONS

For continuous analysis of carbon monoxide (CO) in process gas streams using an infrared detector. Percent and PPM levels available as Models 481 and 481L respectively.

FEATURES

- Percent or PPM levels CO by dual wavelength NDIR detector
- Detector is sensitive, very reliable, and non-depleting
- Bright digital readout, 4 - 20 mA outputs
- Fast response (T90 - less than 15 seconds)
- Microprocessor control with push button calibration
- Explosion proof version has magnetic calibration feature
- Easy-to-maintain modular layout
- Built-in sample pump, flowmeter, and filters
- Several cabinet styles available

OPTIONS

- Hi/Low gas, low flow, and diagnostic alarms available
- Isolated analog, 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 -20°C (-5°F)
- Cabinet coolers can be fitted to most models
- detector is temperature controlled for maximum stability
- High temperature filters and probes

CALIBRATION

- Easily zero checked on ambient air
- Span using a known CO in nitrogen (N₂) calibration gas.



Wall Mount (N4) Enclosure



Explosion-Proof (N7MC) Enclosure

NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

DESCRIPTION

The Nova 481 Series Carbon Monoxide analyzers utilize a simple and reliable microprocessor-based non-dispersive infrared (NDIR) detector specific to CO. The detector pulses an infrared beam of light through the sample tube, without the need for a mechanical chopper. In operation, the internal sample pump draws the sample gas through the filter/condensate trap, secondary filter, flowmeter, and then on to the infrared detector. The detector output is digitally linearized and then displayed as percent or PPM CO on the digital meter. The output is also available as an analog or digital signal.

MODELS

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

- 481N4 - Wall mounted NEMA4 (IP65) enclosure rating
- 481N4X - Wall mounted corrosion-resistant NEMA4X (IP65) enclosure rating
- 481RM - 19" (483mm) rack mounted, on sliding rails
- 481N7MC: Wall mounted NEMA7 UL/CSA explosion-proof with non-intrusive magnetic calibration, Class 1 Div 1 Group BCD
- 481RMN7: 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:	Single cell, dual wavelength NDIR detector
Ranges Available:	481L - 0-2000, 0-3000, 0-5000 PPM CO 481 - 0-1, 0-5, 0-10, 0-20, 0-30, 0-50, 0-100% CO <i>(PPM versions may not be available in N7 exp-proof enclosures. Check with Nova.)</i>
Resolution:	0.1% CO on % versions; 10 PPM for PPM ranges
Accuracy and Repeatability:	1% of full scale
Drift:	Less than 2% of full scale per month.
Response Time (T-90):	Less than 15 seconds
Ambient Temperature Range:	32-122°F (0-50°C). Lower temperatures (-5°C, -20°F) with Cold Weather Package.
Linearity:	Better than 1% of full scale
Size and Weight:	Physical data 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 optional
Alarms:	High and/or low alarm contacts available, relay contacts SPDT 5A @ 220VAC rating. Low flow alarm optional

UNIQUE APPLICATIONS

The 481 Series analyzers are designed for detection of CO in *non-corrosive* gas streams. 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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