



# 495 SERIES CONTINUOUS PROCESS INFRARED AMMONIA ANALYZER

### **APPLICATIONS**

For continuous analysis of ammonia (NH<sub>3</sub>) in process gas streams using an infrared detector. Percent and PPM levels available as Models 495 & 495L respectively.

## FEATURES

- Percent (495) or PPM (495L) NH3 by infrared detector
- Detector is sensitive, reliable, and non-depleting
- Bright digital readout
- Fast response (T90 less than 15 seconds in Model 495)
- Microprocessor control with push button calibration
- Easy-to-maintain modular layout
- Purged cabinet version has magnetic calibration
- · Sensor is temperature controlled for maximum stability
- · Built-in sample pump, flowmeter, and filters
- 4 20 mA output

#### **OPTIONS**

- Hi/Low gas, low flow, and diagnostic alarms available
- Isolated analog, RS232, RS485, MODBUS<sup>®</sup>, 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

#### CALIBRATION

- · Easily zero checked on ambient air
- Span using a known NH₃ in nitrogen (N₂) calibration gas.



Wall Mount (N4) Enclosure



Wall-mount enclosure with Purge Kit for Hazardous-rated areas

NOVA ANALYTICAL SYSTEMS www.nova-gas.com

#### DESCRIPTION

The Nova 495 Series Ammonia analyzers utilize a reliable, microprocessor-based, non-dispersive infrared detecter specific to NH<sub>3</sub>. In operation, the internal sample pump draws the sample gas through the filter, secondary filter, flow meter, and then on to the infrared detector. The detector output is digitally linearized and then displayed as percent or PPM NH<sub>3</sub> on the digital meter. The output is also available as an analog or digital signal. A regulator will be supplied for applications that have a pressurized sample.

#### MODELS

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

- 495N4 Wall mounted NEMA4 (IP65) enclosure rating
- 495N4X Wall mounted corrosion-resistant NEMA4X
  (IP65) enclosure rating
- 495RM 19" (483mm) rack mounted, on sliding rails
- 495Div1: Wall mounted NEMA4 enclosure with Hazardous Area Purge Kit - for Class 1 Division 1 areas
- 495Div2: Wall mounted NEMA4 enclosure with Hazardous Area Purge Kit - for Class 1 Division 2 areas

## SPECIFICATIONS

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

Description	
Method of Detection:	Microprocessor-based single cell NDIR
Ranges Available:	495L - 0-1000, 0-3000, 0-5000 PPM NH₃ 495 - 0-1, 0-5, 0-10, 0-20, 0-30, 0-50, 0-100% NH₃
Resolution:	0.1% NH $_3$ on % versions, 10 PPM NH $_3$ on PPM versions
Accuracy and Repeatability:	1% of full scale
Drift:	Less than 2% of full scale per month.
Response Time (T-90):	Less than 15 seconds to T-90
Ambient Temperature Range:	40-122°F (5-50°C). Lower temperatures (-20°C, -5°F) with Cold Weather Package.
Linearity:	±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, 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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