AC32e
CNH3

Chemiluminescence Ammonia and nitrogen oxides analyzer

AIR QUALITY MONITORING SYSTEMS

SPECIFIC FEATURES:

- Combines the AC32e chemiluminescence analyzer with the external NH_3→NO thermal converter module CNH3 for stable and repeatable multi-gas measurements at very low levels
- Selectable and independent NO, NO_2, NOx, NH_3 ranges
- User programmable ranges and average time
- Excellent metrological performances
- Innovative conception for excellent sensitivity and signal stability
- Includes embedded Communication Protocol for XR® Software with automatic recognition & configuration
- Ultra low power consumption: an environment-friendly and cost-saving analyzer
- Breakthrough mechanical design for weight and power saving as well as thermal insulation & reliability
- Automatic recognition of plugged electronic boards or optional devices: plug & play principle
- Local and remote control through digital port (configuration, calibration, test and diagnostic parameters for maintenance support)
- Real-time calibration graph, animated synoptic, auto-diagnostic, control and maintenance data screens can be displayed while the instrument is operating
- Service assistance inside: detects early signs of trouble, allows predictive maintenance, identifies the needed service and guides service operations step by step: increased productivity on site, reduced downtime, more efficiency, less training

MAIN APPLICATIONS:

› Leak detection and monitoring of fugitive emissions: quarries, storage facilities, mines, fertilizers plants
› Odor monitoring: WWTP, recycling, pulp and paper manufacturing, composting...
› Low level ammonia monitoring in ambient air
› Environmental monitoring of clean rooms

4 SELECTABLE MODES:

- Continuous NH_3
- Continuous NO/ NO_2 / NH_3
- Continuous NO/ NO_2
- Continuous NO

The AC32e offers compliance with:

ISO 7996, EN 14211 (2012), EN 15267 (2009), 40 CFR part 53 & part 58

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N°0000053805

U.S. EPA APPROVED
RFNA-0118-249

Ammonia and Nitrogen Oxides Analyzer **AC32e CNH3**

PRINCIPLE OF OPERATION:

The AC32e-CNH3 consisits of 2 associated elements: the NH_3→NO module (ref CNH3-S2) plus the NOx analyzer (ref AC32e)

TECHNICAL SPECIFICATIONS - AC32e

Measurement Range	0-1 ppm / 0-10 ppm (user selectable or auto-ranging)
Measured parameter	NO, NO_2 & NOx
Detection limit (2σ)	<0.2 ppb
Noise	<0.1 ppb
Zero drift	<1 ppb / 24h
Span drift	<1 ppb / 7 days
Response time	min. 40 s
Linearity	1% (of F.S.)
Repeatability	1%
Sample flow-rate	0.33 l/min
Memory Capacity	1 year (15 minutes average)
Output connectivity	Ethernet (RJ45 socket, UDP protocol, Modbus TCP), USB port, External zero/ span SV control
Dimensions L x W x H (mm)	483 x 545 x 133
Chassis	19" rack, 3U
Weight	10 kg without external pump (4.5 kg)
Standard operating temperature	0°C to +40°C
Power supply	100-250 V, 50/60 Hz
Power consumption	160 VA (average) 250 VA (peak)
Chamber pressure	200 hPa
NOx converter	Molybdenum (regulated at 340°C)
Ozone scrubber	Heated catalytic
P.M temperature	controlled at 0°C
Reaction chamber temperature	60°C
Filter valve block for calibration control (zero & span)	
Integrated web-server with full remote emulation of the analyzer	
Pressure and temperature compensation	

TECHNICAL SPECIFICATIONS - CNH3 MODULE

Measurement Range	0.10 /0.25 /0.5 /1 ppm (user selectable ranges)
Measured parameter	NH_3
Lower detectable limit (2σ)	0.001 ppm
NH_3 to NO converter	Quartz, 980°C
Output connectivity	Ethernet network connection (RJ45)
Dimensions L x D x H (mm)	483 x 545 x 133
Operating temperature	+10°C to +35°C
Weight	7 kg for the 230V version 9.6 kg for the 110V version
Power supply	115 V, 60 Hz - 230 V, 50 Hz
Power consumption	160VA
Digital output	RS 232 or RS 422 port

MAIN OPTIONS:

for the AC32e:

- 7" TFT color touch screen on the AC32e
- WiFi module (in standard with the no-screen version)
- RS232 or RS485 serial interface (via USB port)
- Built-in permeation bench with NO_2 tube
- Sample dryer
- External opto-isolated I/O interface with:
  - 4 independent analog inputs
  - 4 independent analog outputs
  - 4 remote control inputs
  - 6 dry contacts outputs
- 24V power supply interface & enhanced T° range for utilization without air conditioner

for the CNH3 module:

- a solenoid valve (NH3 SV)
- rear pannel to be equipped with 2 additional bulkhead unions
- a communication cable

envea
KNOWLEDGE IN ACTION

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