Simultaneous measurements of H_2S and NH_3

H_2S/NH_3 Analyzer (H_2S, NH_3, H_2O)

Features and Benefits

- Fast response allows observation of transient and time varying flows
- Wide dynamic range even in complex flows
- High-resolution absorption spectra always viewable
- Low power: ideal for field apps
- Enhanced Performance model provides ultra-low drift and unsurpassed precision
- Full remote control via Internet
- Extremely robust and fully serviceable in the field
- New Ultraportable package available (60 watts, 15 kg, AC or DC power)

LGR's new H_2S/NH_3 (ammonia, hydrogen sulfide) Analyzer provides sensitive measurements in ambient air or in industrial process flows with extremely high precision and sensitivity. No longer do you have to wait a long time to measure these gases with high sensitivity and accuracy – LGR's H_2S/NH_3 Analyzer provides measurements every second with sub-ppm level precision. In addition, the H_2S/NH_3 Analyzer can report measurements quickly (on a dry and wet basis) over a very wide range of mole fractions even in complex process flows.

LGR's H_2S/NH_3 Analyzer is available in different versions to allow users to select the model suitable for their needs. LGR's "high sensitivity" model is designed for ultra trace detection of NH_3 and H_2S in ambient air, industrial process streams, or wherever highest detectivity is required. LGR's "industrial" model is designed for high accuracy measurements in complex processes which contain NH_3 and H_2S at levels that exceed the dynamic range of other analytical techniques.

LGR's new "Enhanced Performance" series incorporates proprietary internal thermal control for ultra-stable measurements with unsurpassed precision, accuracy and drift. Also, LGR's new "Ultraportable" series allows users to hand carry the instrument anywhere and to operate directly on DC or AC power.

The H_2S/NH_3 Analyzer uses LGR's patented Off-axis ICOS technology, a fourth-generation cavity enhanced absorption technique. Off-axis ICOS has many advantages over conventional cavity ringdown spectroscopy (CRDS) techniques such as being alignment insensitive, having a much shorter measurement time, and not requiring expensive and complicated components.

LGR Analyzers include an internal computer (Linux OS) that can store data practically indefinitely on an internal hard drive (for unattended long-term operation), and send real-time data to a data logger through its analog, digital and Ethernet outputs.

Furthermore, LGR instruments may be fully controlled remotely. This capability allows the user to operate the analyzer using a web browser anywhere Internet access is available. Remote access allows full control of the instrument and the opportunity to obtain data and diagnose the instrument operation without being on site.

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Performance Specifications

Repeatability / Precision (1-sigma):
NH_3: 1.5 ppb (1 sec), 0.6 ppb (10 sec), 0.2 ppb (100 sec)
H_2S: 30 ppb (1 sec), 10 ppb (10 sec), 5 ppb (100 sec)

Measurement Range:
NH_3: 2 – 10000 ppb
H_2O: 100 – 70000 ppm (non-condensing)
H_2S: 30 ppb – 50 ppm

Operational Range:
NH_3: 0 – 200 ppm
H_2O: 0 – 70000 ppm (non-condensing)
H_2S: 0.050 – 1000 ppm

Outputs:
Digital (RS-232), Analog, Ethernet, USB

Data Storage:
Internal Solid State Hard Disk Drive

Ambient Humidity:
0 – 100%

Operating Temperature:
5 – 45 °C

Inlet / Outlet Fittings:
¼" Push connect

Power Requirements:
60 watts (10-30 VDC)
66 watts (115/230 VAC, 50/60 Hz)

Dimensions:
7" H x 18.5" W × 14" D (Enhanced Performance)

Weight:
15 kg

Ordering Information

915-0039: Enhanced Performance package

Accessories (optional)

908-0003-9001: Multiport Inlet Unit – 16 inlet port multiplexer

908-0003-9002: Multiport Inlet Unit – 8 inlet port multiplexer

904-0002: Data Logging System – multi-channel data logging system records and synchronizes serial (RS-232) outputs from multiple LGR analyzers and other devices (GPS, anemometers)

Instrument complies with 21 CFR 1040.10 and 1040.11

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