AMETEK®
PROCESS INSTRUMENTS

MEASURES: **CO, CO_2, CH_4, H_2O, and more**

PRODUCT DATA SHEET

IPS-4 NDIR Analyzer

Infrared-based analyzer with integrated sampling conditioning

Finding the right on-line process analyzer for your application can be a time-consuming experience. Users are looking for cost-effective, low-maintenance solutions for gas and liquid analysis.

AMETEK has been offering solutions to meet your specific application needs for well over four decades. The IPS-4 NDIR analyzer, built on our field proven IPS-4 UV-VIS platform, offers unparalleled reliability, and enhanced analog and digital connectivity.

With an integrated sample conditioning system, the IPS-4 analyzer is easy-to-use and is durable enough to be installed in outdoor, wash-down, hazardous, and environmentally harsh locations. While the IPS-4 can be mounted in demanding environments, it still possesses user interfaces expected in production environments.

An interactive display and interface is included with every IPS-4 for local access. Remote access is also available, through both serial and Ethernet connections.



KEY BENEFITS

- Multiple gas capability
  - Carbon monoxide (CO), carbon dioxide (CO_2), methane (CH_4), water (H_2O) and more
- Analog and digital connectivity
  - Modbus, ethernet and web browser-based interface
- NEMA 4 enclosure houses all components
  - Designed for outdoor installation; no exposed components
- Fully integrated sample conditioning
  - No need for site integration

APPLICATIONS

- Water in Acetic Acid
- Water in dehydration systems
- CO_2 in hydrocarbons

KEY MARKETS

- Natural gas
- Refining
- Petrochemical

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PERFORMANCE SPECIFICATIONS

Analyzer range	ppm to 100% depending upon specific application
Linearity (independent)	<1% full-scale range
Measurement accuracy	<+/-2% full-scale range (application-specific)
Repeatability	<1% full-scale range (application-specific)
Stability	0.5% of full-scale range
Zero drift	<1.0% of full-scale range over 24 hours
Response time	<2 seconds photometric response, <30 seconds to T90
Components	Up to five components can be measured
Inputs	Two non-isolated analog inputs (0-5V, 0/4-20mA) 2 optically isolated discrete DC inputs 22 key piezoelectric keypad
Outputs	265 x 64 pixel vacuum fluorescent display with multi-lingual capability (language options include English, Spanish, French, German, Russian. This is a partial listing. Contact AMETEK for more information) Two isolated analog outputs (0/4-20 mA) (Two additional analog outputs optional) Eight dry relay contacts (NO, 100VA, 240 V) RS485 isolated (supports MODBUS RTU) RS232 non-isolated Fast Ethernet (IEE802.3)
Sample system limits	Sample pressure: Up to 100 barg (1450 psig) for some configurations Temperature: Heater capable of maintaining 150°C (300°F)
Utility requirements	Electrical: 120 or 240 VAC (105-132 or 209-264 VAC), 47 to 63 Hz Power consumption: <700 W with sample heater <300 W without sample heater
Instrument air/nitrogen	4.8-6.9 barg (70-100 psig) (valve actuation)
Environmental requirements	Ambient temperature: -20° to 50°C (-4° to 122°F) Ingress protection: IP65 and NEMA 4X Enclosure Material: 316 Stainless Steel
Physical dimensions	Typical model: (W x H x D): 78 cm x 53 cm x 30 cm (30.7" x 20.9" x 11.8") Weight: 66 kg (145 lb) for base system
Approvals and certifications	Meets various ATEX, CEC & NEC, IEC-EX and other hazardous area requirements. Consult AMETEK for specific details.

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ISO 9001 REGISTERED MANAGEMENT SYSTEM