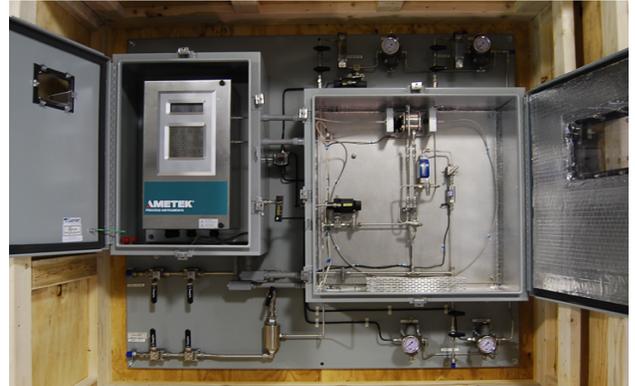


IPS-4 Fiber Optic Coupled Analyzer

Ultraviolet (UV) spectrophotometer integrated with fiber-coupled sample cells

Today's chemical producers are under tremendous pressure to reduce plant risks, cut costs, lower maintenance expenses, and improve product quality. Unfortunately, new chemical processes are often quite complex and safely obtaining representative samples to analyze can be a challenge. In particular cases, it may be advantageous to keep the sampling points as close as possible to the process stream, or even build the sampling points into the process streams to avoid difficulties that may get involved in sample transportations and sample injections.

In order to meet these demanding objectives, AMETEK has designed an IPS-4 UV analyzer that uses fiber optic connections between separated electronic and sample analysis sections. The IPS-4 with optical fiber-coupled sampling cells is engineered to perform a wide variety of liquid and gas analyses.



KEY BENEFITS

- High temperature and pressure tolerance
 - Up to 300°C (572°F) and 200 barg (3000 psig)
- Versatile mounting options
 - Electronics and sample sections are separated
 - Electronics can be kept out of a highly corrosive environment
- Easier maintenance
 - Sample cells can be mounted on panels or in larger enclosures than a standard IPS-4, allowing for easier access during maintenance

APPLICATIONS

- Chlorine (Cl₂) in hydrocarbons
- Impurities in Cl₂ or fluorine
- Impurities in titanium tetrachloride

KEY MARKETS

- Chemical
- Petrochemical

PERFORMANCE SPECIFICATIONS

Analyzer Range	Parts per million (ppm) to 100% depending upon specific application
Linearity (independent)	<1% full-scale range
Measurement accuracy	<1% 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 eight components can be measured
Inputs	Two non-isolated analog inputs (0-5V, 0/4-20mA) Two optically isolated discrete DC inputs 22-key piezoelectric keypads
Outputs	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) (four additional analog outputs optional) Eight dry relay contacts (NO, 100VA, 240 V) RS485 isolated (supports Modbus RTU) RS232 non-isolated Fast Ethernet (IEEE802.3)
Sample system limits	Sample pressure: Up to 200 barg (3000 psig) for some configurations Oven temperature: Oven heater capable of maintaining 300°C (572°F)
Utility requirements	Electrical: 120 VAC (105 to 132 VAC), 47 to 63 Hz 240 VAC (209 to 264 VAC), 47 to 63 Hz Power consumption: <700 W with sample system heater <300 W without sample system heater
Instrument air	4.8-6.9 barg (70-100 psig)
Environmental requirements	Ambient temperature: -20 to 50°C (-4° to 122°F) Ingress protection: IP65 and NEMA 4X Enclosure Enclosure material: 316SS , typically mounted in a fiberglass cabinet and mounted on a 316SS back panel.
Physical dimensions (W x H x D)	Electronics enclosure: 300 x 530 x 260 mm (11.7 x 20.9 x 10.2 in.) Weight: 66 kg (145 lb.) for base system
Approvals and certifications	Meets various ATEX, CEC, IECEx & NEC hazardous area requirements. Consult AMETEK for specific details

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Specifications subject to change without notice.

