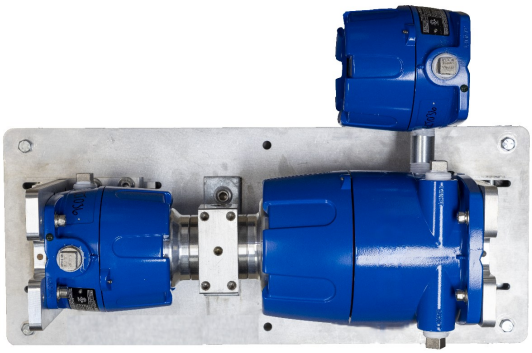
XSPCT Analyzer

Explosion Proof Analyzer for Field Operations Measuring Hydrocarbon Composition and Fluid Properties

Critical Data. Real Time.

Designed for Fast and Accurate Measurement of Gases and Liquids

The XSPCT single-stream analyzer is built upon the same field-proven principles as the Verax family of analyzers. The XSPCT provides rapid and reliable measurement of key compositional and physical properties for a variety of analytical applications. It does not require consumables or sample conditioning, and delivers accurate process measurements in real time. The XSPCT system meets or exceeds applicable GPA, ASTM, and API performance requirements for repeatability and reproducibility. Older, less reliable and maintenance intensive technologies can now be replaced with confidence. The unit can be powered by a small solar panel, 24V DC, or 120V AC with the optional Systems Hub.



XSPCT NIR Spectrometer

Measure Inline at Operating Pressure and Temperature

The Class I Division 1 Explosionproof XSPCT system is installed directly inline with the process at operating pressure and temperature; no sample conditioning system is required. The flow cell is integral to the analyzer, removing the need for fiber optic cable required by other optical systems—perfect for applications where fiber runs would be prohibitively long. The XSPCT supports multiple simultaneous compositional and physical property analyses. JP3's advanced technology means all JP3 analyzers produce no emissions and require no carrier or calibration gases.

Solid State Spectroscopy for Rapid Response Time

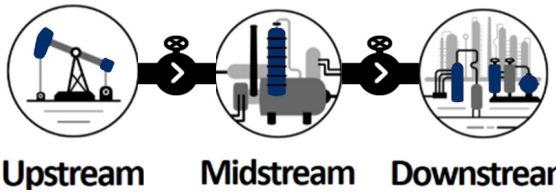
Using a broadly-tunable Near-Infrared (NIR) optical spectrometer and advanced chemometric techniques, the XSPCT provides direct process readings for gases or liquids in a matter of seconds. No consumables and no sample conditioning system means longer life and reduced maintenance costs. The patented laser source utilizes an internal reference cell to self-calibrate every measurement scan, delivering performance that is unmatched in the industry.

Internet Ready for Remote Monitoring

The XSPCT advanced electronics and communication capabilities allow easy integration into your plant networks and systems. XSPCT also supports monitoring via secure cellular data connection, making even the most remote unmanned applications possible and economical.

XSPCT Analyzer

- **Low maintenance**
- **No sample conditioning**
- **Real-Time measurements for process control and monitoring**
- **Built for rugged field conditions**
- **Class I Div. 1 Explosionproof design**
- **Remote monitoring via cell modem**
- **Ideal for use in unmanned and remote locations**



Critical Data. Real Time.

XSPCT Specifications

Applications	**Fluid Streams**	• Integrated flow cell • Type: Natural Gas, Field Gas, Vent Gas, NGL, NGL Purity Products & LPGs, Crude, Condensate, Refined Products • Ideal for upstream applications • Phase: Gas or liquid
	Property Analysis	• Composition: C1-C6+, C1-C9+, C1-C12+, C1-C30+, Others on request • Physical Properties: NHV/BTU, Relative Density/Specific Gravity, Vapor Pressure (RVP, VPCRx, TVP), Boiling Point Curves, RON, MON, Flash Point, and many more
	Sample System	• None Required
	Calibration Gas	• None Required
	Line Pressure	• 0-1750 psig
	Line Temperature	• -20°F to 200°F (-29°C to 93°C); Higher ranges available
	Flow Requirement	• Minimum: ~200ml/min per foot of 1/2" sample tubing between probe and analyzer is required for 15s sample lag. Example: 3' of tubing needs 600ml/min for 15s lag. • Maximum: Dependent on process conditions—sample should not cavitate • ~1 psi pressure difference required to induce flow
	Response Time	• 15 seconds
	Detection Method	• NIR spectroscopy with on-line bypass flow cell
Electrical	**Input Power**	• 24 VDC / 2A max
	Communications	• MODBUS over TCP (others available upon request) • OPC UA, MQTT • Cellular connection and RS-485 serial communication available with optional Systems Hub • Up to four XSPCT systems may be connected to one Systems Hub
	I/O	• 4x 4-20mA Inputs, 1x Digital input • Analog I/O (4x 4-20mA AI/O, 2x D/I, 2x D/O) with optional Systems Hub
Physical	**Enclosure**	• Painted aluminum Explosionproof housing
	Dimensions	• 24"W x 30"H x 10"D
	Weight	• 63 lbs.
	Ambient Conditions	• -4°F to 122°F (-20°C to 50°C) • Sunshade recommended if >90°F (32°C)
	Area Classification	Enclosure Type 4, IP 66 Class I Div 1, Group B,C,D, T5 @ -20°C ≤ T_a ≤ 50°C Class I Zone 1 Group IIB

For more information:

info@jp3.com

512-537-8450

4109 Todd Ln. Ste. 200
Austin, TX 78744

JP3.com