

# XSPCT Analyzer

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

### 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 consumable materials or sample conditioning, and delivers accurate process measurements in real time. The XSPCT system meets or exceeds applicable GPA and ASTM 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.

### 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

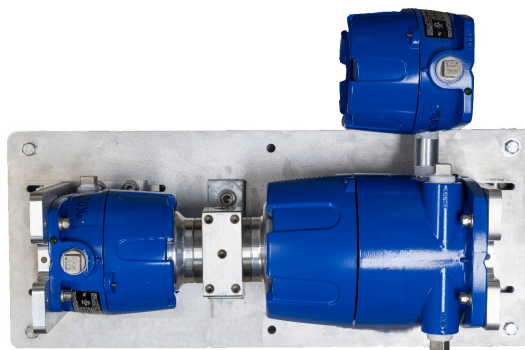
Using a broadly-tunable Near-Infrared (NIR) optical spectrometer and advanced chemometric techniques, the XSPCT provides direct process readings for gases or liquids in a matter of seconds. No consumables and no sample conditioning system means longer life and reduced maintenance costs. The patented 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.



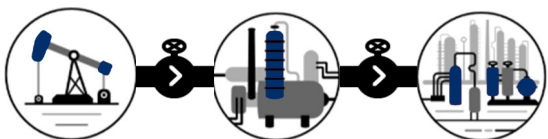
Critical Data. Real Time.



XSPCT NIR Spectrometer

#### 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**



Upstream

Midstream

Downstream



Critical Data. Real Time.

# XSPCT Specifications

Applications	Fluid Streams	<ul style="list-style-type: none"> <li>Integrated flow cell</li> <li>Type: Natural Gas, Field Gas, Vent Gas, NGL, NGL Purity Products &amp; LPGs, Crude, Condensate, Refined Products</li> <li>Ideal for upstream applications</li> <li>Phase: Gas or liquid</li> </ul>
	Property Analysis	<ul style="list-style-type: none"> <li>Composition: C1-C6+, C1-C9+, C1-C12+, C1-C30+, Others on request</li> <li>Physical Properties: NHV/BTU, Relative Density/Specific Gravity, Vapor Pressure (RVP, VPCR<sub>x</sub>, TVP), Boiling Point Curves, RON, MON, Flash Point, and many more</li> </ul>
	Sample System	<ul style="list-style-type: none"> <li>None Required</li> </ul>
	Calibration Gas	<ul style="list-style-type: none"> <li>None Required</li> </ul>
	Line Pressure	<ul style="list-style-type: none"> <li>0-1750 psig</li> </ul>
	Line Temperature	<ul style="list-style-type: none"> <li>-20°F to 200°F (-29°C to 93°C); Higher ranges available</li> </ul>
	Flow Requirement	<ul style="list-style-type: none"> <li>~600ml/min for 15sec sample lag (Assumes 36" of 1/2" tubing to transport sample)</li> <li>~1 psi pressure difference required to induce flow</li> </ul>
	Response Time	<ul style="list-style-type: none"> <li>15 seconds</li> </ul>
Electrical	Detection Method	<ul style="list-style-type: none"> <li>NIR spectroscopy with on-line bypass flow cell</li> </ul>
	Input Power	<ul style="list-style-type: none"> <li>24 VDC / 2A max</li> </ul>
	Communications	<ul style="list-style-type: none"> <li>MODBUS over TCP (others available upon request)</li> <li>OPC UA, MQTT</li> <li>Cellular connection and RS-485 serial communication available with optional Systems Hub</li> <li>Up to four XSPCT systems may be connected to one Systems Hub</li> </ul>
Physical	I/O	<ul style="list-style-type: none"> <li>4x 4-20mA Inputs, 1x Digital input</li> <li>Analog I/O (4x 4-20mA AI/O, 2x DI, 2x DO) with optional Systems Hub</li> </ul>
	Enclosure	<ul style="list-style-type: none"> <li>Painted aluminum Explosionproof housing</li> </ul>
	Dimensions	<ul style="list-style-type: none"> <li>24"W x 30"H x 10"D</li> </ul>
	Weight	<ul style="list-style-type: none"> <li>63 lbs.</li> </ul>
	Ambient Conditions	<ul style="list-style-type: none"> <li>-4°F to 122°F (-20°C to 50°C)</li> <li>Sunshade recommended if &gt;90°F (32°C)</li> </ul>
	Classification (Pending)	Enclosure Type 4X, IP 66 Class I Div 1, Group B,C,D, T5 @ -20°C ≤ T <sub>a</sub> ≤ 50°C Class I Zone 1 Group IIB



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