

# Verax™ CTX™ Analyzer



## Natural Gas Custody Transfer Multi-Stream Measurement of BTU, Hydrocarbon Composition (C1-C6+), Relative Density, and CO2 in Natural Gas



JP3 Verax CTX Analyzer: Capable of measuring natural gas up to 1650 BTU/SCF without sample conditioning

The JP3 Verax CTX for Natural Gas has been certified to exceed the repeatability and reproducibility criteria of common standards referenced for custody transfer (GPA2261-13 and API 14.1)

### One Device Measures Composition and Physical Properties of up to four Natural Gas Streams

For the first time, natural gas can be easily analyzed to obtain Hydrocarbon composition, BTU, Relative Density, CO2, and other properties without the cost and headaches of traditional analyzers. Verax CTX delivers custody transfer information for up to four fluid streams in real time without sampling.

### Measure in the Pipeline at Operating Pressure and Temperature

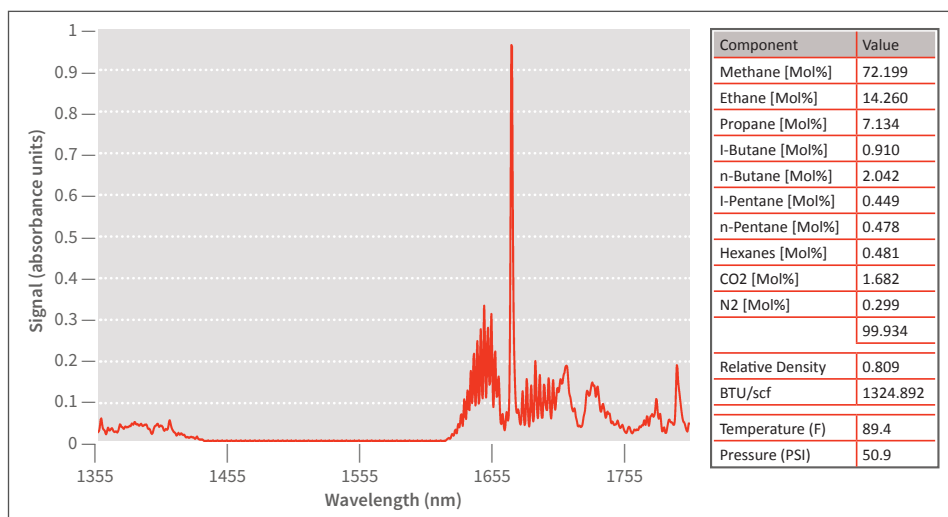
The Verax flow cell is installed directly in the process at operating pressure and temperature requiring no sampling or conditioning systems. The flow cell is connected to the analyzer by a single pair of fiber optic cables allowing the analyzer to be located as close to or far from the process as desired. Our advanced technology means the Verax analyzer produces no emissions and requires no carrier gases or calibration gases.

### Solid State Spectroscopy for Rapid Response Time

Using patented Near-Infrared (NIR) optical spectroscopy and advanced chemometric techniques, Verax CTX provides readings in a matter of seconds, directly in both liquid and gas streams. No moving parts, no consumables, and no sample conditioning systems means longer life and reduced maintenance costs. Our patented laser source utilizes constant amplitude correction and wavelength calibration to deliver a source performance that is unmatched in the industry.

### Internet Ready for Remote Monitoring

Verax's advanced electronics and communication capabilities allow easy integration into your plant networks and systems. Verax also supports 24 x 365 monitoring making even the most remote unmanned applications possible and economical.



### Real Time Output from Verax CTX

Data shown for representative 1300 BTU natural gas stream.

Live time stamp, line temperature and pressure readings are all shown along with the composition, BTU, relative density, and CO2 information of the stream.

# Specifications

<b>Applications</b>	<b>Fluid Streams</b>	Type: Natural Gas Phase: gas Upstream, Midstream, Downstream Applications
	<b>Property Analysis</b>	C1-C6+, BTU, Relative Density/Specific Gravity, CO2 Natural Gas Custody Transfer
	<b>Sample System</b>	None Required
	<b>Calibration Gas</b>	None Required
	<b>Line Pressure</b>	0-1500 psig
	<b>Line Temperature</b>	-10° to 225°F (Higher ranges available)
	<b>Line Flow Rate</b>	Sufficient pressure drop to induce flow
	<b>Response Time</b>	~ 10 seconds per analysis point
	<b>Detection Method</b>	NIR spectroscopy with inline optical probes

<b>Electrical</b>	<b>Input Power</b>	24V DC standard; 100-240 VAC optional Max Power Consumption: 100V @ 1.4A; 240V @ 0.65A; 24V @ 6A
	<b>Communications</b>	MODBUS RTU over Serial or TCP (others available upon request)
	<b>Outputs</b>	8 solid state relays for process control Analog 4-20 mA /0-10 VDC outputs available configurable alarms/controls

<b>Physical</b>	<b>Enclosure</b>	NEMA 4X IP 67 powder coated aluminum
	<b>Dimensions</b>	Control Panel: 24"W x 36"H x 10"D
	<b>Weight</b>	Control Panel: 60 lbs. Flowcell Assembly: 12 lbs.
	<b>Ambient</b>	-4°F to 122°F. No environmental control required; sunshade recommended if >90°F
	<b>Classification</b>	Enclosure: Class I / Division 2 A,B,C,D, T4 Class 1 / Zone 2 IIC Certified to UL 61010-1 Certified to CAN/CSA Std C22.2 No. 61010-1 Conforms to ISA 12.12.01 Conforms to CSA/CSA C22.2 No 213 Flow Cell: Intrinsically Safe / Class 1 Div 1



Typical Installations at Customer Sites:  
Verax CTX control panels, and optical probes



Critical Data. Real Time.

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