AIT | Applied Instrument Technologies

Analect EVM™

FTIR Analyzer

The ***Analect™ EVM*** *monitor provides round-the-clock multi-point continuous air monitoring for a variety of applications.*

- Proven, reliable FTIR technology yields real-time analysis of both organic and inorganic compounds.
- Measures ambient toxic and pollutant gases with ppb to % level detection.
- A variety of user-configurable alarms for instant warnings of toxic gas levels and system control.
- Capable of monitoring 28 components with up to 32 sampling points over a distance of 300 meters from the monitor.
- Rapid response time – typically 20-200 seconds per stream.
- Configurable sample point selection locally or by DCS.
- Communications options including Modbus,® OPC,® Ethernet and analog/digital.
- Closed-loop calibration system supports injection calibration and validation.
- SpectraRTS™ software engineered exclusively for on-line monitoring, allowing use by engineers, maintenance personnel, and chemists.
- Full chemometric modeling capability including SpectraQuant,™ Unscrambler®, MATLAB® and Pirouette®.

Applications

- ***Monitor ambient air for OSHA compliance for workplace safety***
- ***Monitor gases for production or unwanted byproducts***
- ***Low level leak detection of hazardous compounds***
- ***EPA method 320 HAPS***

Benefits of analyzing ambient air with the Analect EVM monitor

- Proven reliability of the Transept™ IV Interferometer even in harsh environments
- Rapid response time
- Easily configurable to meet changing measurement requirements
- Calibrations transferable to other EVM monitors

Specifications

Spectrometer	
• Interferometer: **Transept** IV hermetically-sealed interferometer with refractively scanned design	
• Spectral range: Extended mid-IR 7,400 to 450 cm^{-1};	
• Resolution: 1.5 cm^{-1} (unapodized)	
• Detector: DTGS pyroelectric (standard) and full line of external Optibus detectors, including DTGS, thermoelectrically controlled DTGS, MCT, liquid nitrogen cooled MCT (12 and 24 hr. dewars)	
Sample Cell	
• 10 meter pathlength standard. Other pathlengths optional	
• Heated cell prevents condensation and stabilizes measurements.	
Ambient Environmet Conditions	
• Temperature range:	0-95°F
• Relative humidity range (RH):	95% non-condensing
Area Classification	
• Standard:	General purpose
• Optional:	Hazardous areas
Utility Requirements	
• Rated voltage:	115/230 Vac ±10%
• Rated load:	2 kVA
• Rated frequency:	50/60Hz
• Nitrogen (N_2):	Optical purge 3-5 psi, 0.25-1 SCFM
• Instrument air or N_2:	Enclosure vortex cooler 60-100 psi, 5-25 SCFM
Communications	
• Standard:	RS 232/422 Modbus RTU or ASCII
• Optional:	Discrete analog/digital
• Optional:	Ethernet OPC
• Optional:	Data concentration PC
Physical Dimensions	
• Analyzer cabinet size:	75"H x 56"W x 24"D 190cm x 142cm x 61cm
• Weight:	800 lb/360 kg

Experience – Our staff of applications experts provides feasibility and calibration services that set the worldwide standard. We also provide the systems integration and post-installation support to ensure your success.

SpectraRTS™ Software Drives Your Application

Automate many aspects of your process

- Control I/O to switch valves and monitor a variety of sample system conditions
- Collect spectra and apply quantitative analysis routines
- Transmit product properties, instrument QC data, and alarms via versatile communications protocols

Implement calibration tools and programming flexibility

- Apply a wide variety of quantitative analysis routines including: SpectraQuant,™ MATLAB® and Pirouette®
- Utilizes Visual Basic for Applications (VBA) compatible scripting language to achieve total programming flexibility
- Operate the system remotely by using pcANYWHERE™ or Timbuktu® software
- Multi-level password access

Validate and diagnose your system

- Implement on-line validation methods,such as ASTM D6122
- Automatically monitor and trend the system's "health" with Remote R_x software preventative maintenance scheduling
- Access the on-line help system for quick reference

EVM

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