

## Rackmount FTIR/FT-NIR Analyzer

The ANALECT® Diamond MX™ FT-NIR process analyzer is configured for rackmount or benchtop applications. It provides rapid, accurate and stable real-time monitoring of physical properties and chemical composition of liquids and solids all from one instrument.

- Eight different sampling devices can be used with the same Diamond MX system.
- Unique to the Diamond MX system, the entire beam is switched from channel to channel, enhancing energy throughput and channel-to-channel precision.
- Fiber-optic sampling also allows the Diamond MX system to be placed remotely in any general purpose area.
- The heart of the analyzer is the rugged Diamond 20™ Transept™ interferometer featuring superior analytical stability and accuracy.
- The Diamond MX uses the same powerful SpectraRTS™ process software found in the ANALECT series of on-line and process development FTIR and FT-NIR analyzers.
- Full chemometric modeling capability including SpectraQuant,™ Unscrambler,® MATLAB® and Pirouette.®
- Seamless transfer of calibration between all ANALECT analyzers.



**ANALECT® Diamond MX™**

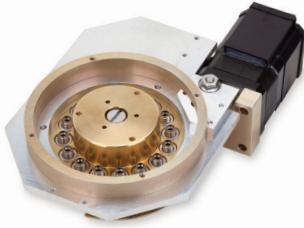


**ANALECT®  
Diamond MX™  
cabinet mounted**

### New Diamond MX System VERSATILITY

A range of applications for raw material QC, on-line and in-situ process monitoring and final product inspection in these industries:

- Hydrocarbon Processing
- Polymers
- Specialty Chemical
- Materials Processing
- Pharmaceuticals



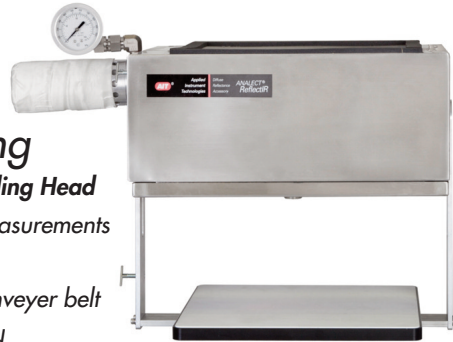
### 9-channel Fiber Optical Multiplexer

- allows fiber optic connection to sampling accessories
- achieves high throughput
- 200 - 500  $\mu$  fiber optics

### Solid Sampling

#### ReflectIR Process Sampling Head

- diffuse reflectance measurements of solids, polymers
- mountable over a conveyer belt
- hazardous area rated



### Liquid Sampling

Interface a variety of probes and cells for liquid phase analysis



Optional air handling unit for ReflectIR air knife

## Specifications

### Spectrometer

Interferometer:

- Transsept IV™ hermetically sealed module with refractively scanned design
- Optical range 12,000 - 1200  $\text{cm}^{-1}$
- Detector options: InGAs, InAs

### Ambient Environmental Conditions

- Temperature Range: 10-30°C (68-86°F)
- Relative Humidity Range (RH): 95%, non-condensing
- Electrical Area Classification: General Purpose

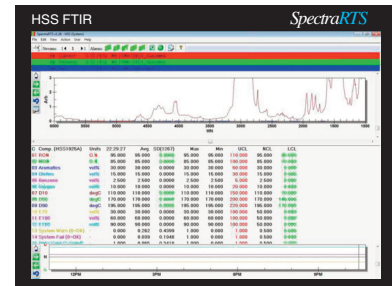
### Utility Information

- AC Power voltage: 115/230 Vac  $\pm$  10%
- AC power freq: 50/60 Hz  $\pm$  1 Hz
- AC power usage: 300 watts

### Options

- Internal or external source
- Multiple probe channels using 9-channel fiber-optic multiplexer
- Background and/or reference channel
- FC fiber connectors (SMA standard), ST option
- Multiple detector options
- Remote  $R_x$  diagnostics
- Desktop or Rackmount analyzer versions; includes Windows-based data station and software

*SpectraRTS™ delivers flexible set-up and control of your system, extensive diagnostics, easy-to-use scripting and robust DCS communications. Interactive communications allow model sets to be switched automatically when changing blend types thereby maximizing blended measurement efficiency.*



**ANALECT® ReflectIR™**  
Diffuse Reflectance  
Laboratory Accessory