BEACON 3000

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PROCESS NIR ANALYZER

Beacon 3000 represents a breakthrough in NIR process analyzer design. The intrinsically safe probe and low system cost, result from a combination of innovative optics and the patented application of standard fiber optic technology to NIR analysis.

BENEFITS

Unique Architecture

- The Main Analyzer is located in the Control Room, protected from the process environment.
- The Main Analyzer is connected by telecommunications fiber optics to the Field Units that are installed up to 3 km (2 miles) away, close to the process.
- Up to 8 Field Units can be connected to one Main Analyzer.

Intrinsically Safe

- The Field Unit is free of electricity and free of moving parts.
- This 100% optical probe requires no explosion proof housing or analyzer shelter.
- The Field Unit is certified under the ATEX Directive 94/9/EC (EN 60079-28:2007).

APPLICATIONS

- Gasoline and Diesel on-line blending
- Continuous catalyst regeneration
- Crude distillation unit optimization
- Solvents extraction and complex on-line analysis
- Catalytic cracking unit optimization
- Reformer streams on-line analysis
- HF Alkylation

ATEX EEC's authorized ATEX representative has reviewed the contents

IP68 INGRESS PROTECTION

Intertek

www.modcon-systems.com

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TECHNICAL SPECIFICATIONS

Analyzer Performance Specifications

Cycle time:	10-30 sec / stream
Analyzer to Field Unit distance:	Up to 3 km
Multiplexing Capability:	Up to 8 Field Units
Outputs:	Modbus RS 485 TCP/IP Ethernet Communication Optional AO/AI/DI/Dos

Field Unit Operating Conditions

Ambient Temperature:	-40°C to +70 °C
Maximum Sample Temperature:	160 °C
Sample Conditioning Requirement:	Haze-free
Maximum Inlet Pressure:	550 psi (40 bars)
Flow Rate Requirement:	1-3 l/min
Sample phase:	Transparent Liquid
Weight:	Approximately 7 kg (15 lb.)
Dimensions:	H x D x W = 30 x 38 x 16 cm
Routine Maintenance:	None
Area Classification:	Zone 1 (EN 60079 EN 6007928:2007)

Spectrometer Operation Conditions

Ambient Temperature:	0°C - 45°C (32°F - 113°F)
Relative Humidity:	30% - 90% non-condensing
Supply Voltage:	100/120/220/VAC, 50/60 Hz (3 A max.) or via on-line UPS
Weight:	Approximately 8 kg
Dimensions:	Single 2U, 19" Rack Unit, 353 mm deep
Routine Maintenance:	Replacement of light source every 6 months
Area Classification:	General Purpose

BENEFITS

Low Maintenance

Proprietary probe design prevents fouling and eliminates the need to dismantle and clean the probe on a constant base. Probe is easily cleaned if needed. Little or no conditioning is required, further increasing the system's reliability.

Low Cost

In many applications, the Beacon 3000's performance and price make it an attractive alternative to traditional analyzers, such as gas chromatographs, distillation analyzers, knock engines and other analyzers. No analyzer shelter is required, and low maintenance requirements reduce ownership costs to a minimum.

Field Proven

The Beacon technology has successfully been implemented in Refinery, Pipeline and Petrochemical applications worldwide.

Service Commitment

Modcon Systems is committed to provide all services during preparation, installation and operating of the analyzer and its models.

MEASURED PROPERTIES

- MON
- RON
- Aromatics
- Olefins
- Benzene
- Distillation Points
- Oxygenates
- API Gravity
- Cloud Point
- PIONA
- Flash Point
- Pour Point
- Cetane index
- Reid Vapor Pressure
- para Xylenes
- ortho Xylenes
- meta Xylenes
- Viscosity
- Chemical Composition
- % MTBE

and more

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