

OBERON 70 ONLINE ANALYZER

Oberon NIR process analyzer

Remote architecture, long distance, low cost, multi-channel, fast channel switching, low maintenance, auto calibration, automatic modeling, dual beam, built for harsh conditions.

Built for process

Oberon 70 performs measures at real-time. Up to 12 probes can be connected to the analyzer, with acquisition time of less than 15 seconds per channel, enabling quick switching between the different streams. Concentrations are reported to the DCS over Modbus (Ethernet / Serial) or OPC (Client / Server). The field units can handle flow pressure of up to 60 bar probe pressure, and 120 degrees C.

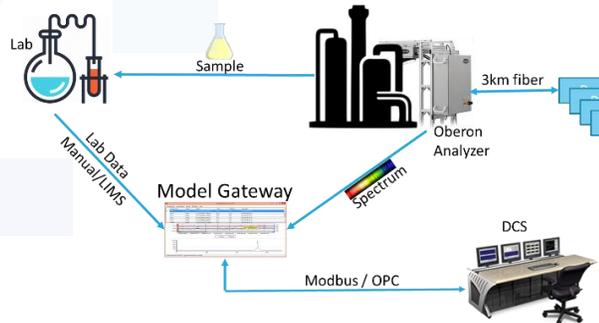
Remote Architecture

The analyzer's wave length along with the low cost fiber optics (62.5 /125 micron) enables a centralized architecture. The analyzer can be located in the control room while the field units are located remotely at up to 3km distance from the analyzer. The analyzer software runs on Windows Operating System, allowing remote control using safe connection tools.

Analyzer Box

All in One Box - the analyzer box includes all the optic parts: the spectrometer, detector, Light Source and multiplexer, as well as a powerful computer with a touch screen. External keyboard/mouse/display can be connected for easier management, as well as integrated wireless connection. The system can display either the analyzed properties on a panel view or a graphic display of the acquired spectra.

OBERON^{NIR}



Automated Modeling

Oberon NIR is integrated with ModelGateway software that uses AI for automatic calibration of chemometric models. Feeding the software with lab data enables automated modeling, prediction and reports. The predicted concentrations are reported to DCS over Modbus (TCP/IP / serial) or OPC. The AI based solution enable responding to changes in a matter of hours.

Applications

Gasoline parameters

- Research octane (RON, ASTM D 2699)
- Motor octane (MON, ASTM D 2700)
- Aromatics, RVP, Density, Flash Point and Pour Point
- Volume percentage or mole percent of paraffins, Isoparaffins, aromatics, naphthenes, and olefins)

Common diesel parameters

- Specific gravity
- Viscosity
- Flash point
- Pour point
- Cloud point
- Cetane index

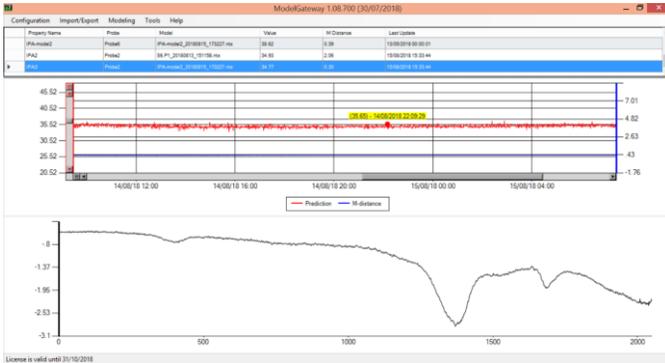
Back Panel



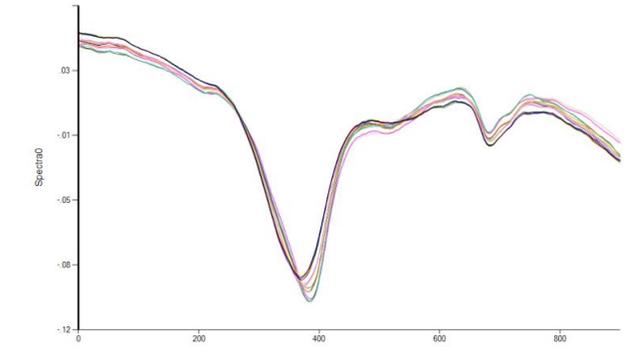
Front Panel



Prediction stability over 72 hours



Spectra



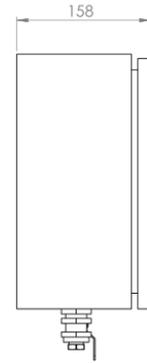
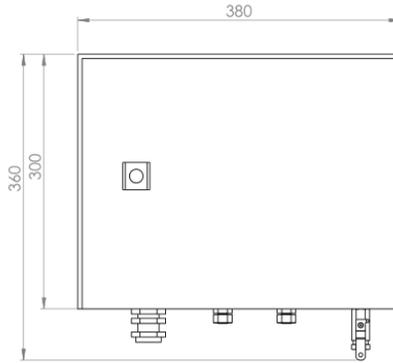
Specifications

Warranty	2 years limited warranty
Channels	Up to 12
Light Source	Halogen lamp 5V, 1.2 A (6 month 24 Hours)
Wavelength Range	800-1050 nm
Wavelength Accuracy	0.015 nm
Wavelength Repeatability	0.01 nm
Spectral Resolution	0.6 nm
Light Source	Halogen lamp 5V, 1.2 A (6 month 24 Hours)
Probe volume	10 ml
Fiber Optic	62.5 / 125 Micron multi-mode
Fiber Optic Connectors	ST and SMA 905
Detector Type	3560 Pixel Liner
Data Communication	RS232 / RS485 / Ethernet / WIFI

Drawings

Oberon 70 Field Unit
enclosure dimensions:
300x380x158 mm

No electricity inside
enclosure.



Oberon 70 Analyzer Box
enclosure dimensions:

Standard 19" 4U rack
mount

