

# Specifications

## Function

Quantitative constituent analysis for product research measurement and/or product monitoring

## System Capabilities

Precalibrated for ..... Octane number RON, MON, (R+M)/2  
Optional Calibrations ..... Diesel cetane index, cetane number  
Outputs ..... LCD display, built-in printer  
Data Transfer ..... Via RS-232 port for interface with PC  
Data Analysis ..... Includes full calibration software  
Results ..... Traceable to CFR Engine or other fuel lab standards  
Calibrations ..... Stores up to 10 calibration sets  
Data Storage ..... Stores data for up to 25 samples

## Optical Capabilities

Measurement Mode ..... Diffuse transmittance  
Spectrum Range ..... 14 filters covering wavelengths from 893 to 1045 nm  
Scan Speed ..... Up to 10 scans per second  
Optical Range ..... 0 to 6 AU  
Resolution ..... 0.00001 AU  
Stability ..... 0.05 Mili-AU  
Measurement Time ..... Variable (Typically under 20 seconds)

## Sample Information

Sample Size ..... 200mL with 75 mm path length  
Sample Holder ..... Reusable glass with chemical seal cover  
Sample Preparation ..... None required  
Sample Destruction ..... None

## Physical Data

Dimensions ..... 5"W X 14"L X 4"H (12 cm X 36 cm X 11 cm)  
Weight ..... 3 lbs. (less than 2 kg)

## Installation Data

AC Power Requirements ..... 120 or 240 VAC 50/60 Hz AC adapter (supplied)  
DC Power Requirements ..... 6 AA alkaline batteries (included)  
..... optional 12V automobile adapter  
Power Consumption ..... 750 ma

For Analysis  
...Where you need it most  
...When you need it most™

**Zeltex**  
Inc.  
ISO 9001 CERTIFIED

# ZELTEX® ZX-101XL

## Portable Near-Infrared Octane/Cetane Analyzer

**Featuring Automatic  
Fuel Detection:**

**Gasoline**  
**Ethanol Blended Gasoline**  
**Diesel** (optional)



**For Analysis  
...Where you need it most  
...When you need it most™**

**For Lab Accurate, On-Site Analysis of Octane and Cetane**

# The Industry's Only Truly Portable, Battery Operated Octane/Cetane Analyzer

## Superior Technology

The patented ZX-101XL utilizes highly accurate and reliable near-infrared spectroscopy for analysis of octane and cetane levels in gasoline, ethanol blended gasoline (e-gas), and diesel fuel.

## In the Field or at the Lab

The ZX-101XL has been specially designed for rugged in-the-field use, but is equally well suited for laboratory applications.

With a warm up time of less than one minute and analysis time of less than 20 seconds, the ZX-101XL allows for nearly instantaneous **analysis when you need it most, where you need it most.** It is ideal for at the pump inspections, spot checks at the pipeline, and quality control at the refinery.

## More Features for Improved Performance

The ZX-101XL's Delron sense head makes it easy to firmly seat and position the sample holder in the instrument making field tests faster and smoother.

The ZX-101XL's two piece sealed optical filter tray extends the life of the optical filter and increases wave length stability.

The ZX-101XL offers Automatic Fuel Selection, enabling it to detect the type of fuel being analyzed and reducing potential operator error.

The ZX-101XL offers an optional GPS locator allowing personnel to document and verify the time and location of each analysis.

## Who Uses Zeltex Technology?

### Government Inspection Agencies

- At the pump inspections
- Over 30 states already use Zeltex Analyzers for their field inspectors
- Used in over 40 countries worldwide

### Service Stations/Gasoline Retailers

- Make sure you're not giving octane away
- Make sure you get what you're paying for

### Blending Stations

- Ensure that your delivery vehicles are delivering the proper blends

### Refineries & Terminal Docks

- Quality control spot checks on blended fuels
- Allows for immediate adjustments

### Military

- Quick, efficient analysis of overseas or unverified fuel supplies to maximize vehicle performance

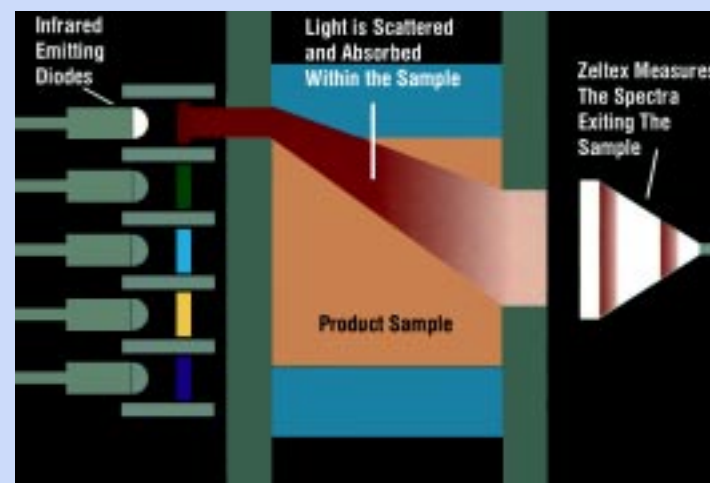
### Research & Development

- Research labs can perform complex analysis for new product development projects



## How It Works: Applied Science In Measurement

Light energy that enters the sample is scattered and absorbed within the sample. The ZX-101XL measures the spectra exiting the sample, and directly displays the product's constituent concentrations.



## Unique Design Features Add Versatility, Dependability and Convenience

- Automatic fuel detection (Gasoline/E-Gas/Diesel)
- Less than one minute warm up time
- Stores data for up to 25 samples
- Precalibrated for unleaded and Ethanol blended fuels
- Optional diesel cetane index and cetane number calibrations available
- Automatic temperature compensation
- Displays results in less than 20 seconds
- Self-standardizing to ensure accuracy
- Easy-loading sample holder
- Easy-to-read LCD display
- Built-in printer that includes time and date of analysis
- Optional GPS locator - GPS data is printed and stored
- RS-232 port for PC interface
- Optional USB capability
- [(R+M)/2], RON, MON
- Can store up to 10 separate gasoline formula calibrations
- Small, lightweight, and easy to use
- Operates on "AA" batteries or AC Power
- Sturdy aluminum carrying case

## A Proven Track Record - Used Worldwide

Thousands of Zeltex Octane Analyzers prove themselves every day at major refineries, state laboratories, federal labs, military laboratories, government regulatory agencies, blending wholesalers and many other users worldwide.

## Control Quality - Control Costs

Portable octane testing allows on-the-spot control and decisions that will save money and time - **making octane control a reality.**

The ZX-101XL provides accuracy and repeatability equivalent to ASTM-approved CFR engines.

