

# ZELTEX® ZX-101RZ

**Ruggedized  
Portable  
Near-Infrared  
Octane/Cetane  
Analyzer &  
Fuel Testing Kit**

**from the  
Desert Heat...**



**Mil Spec  
Water Tight Case  
Shock Mounted Components**

**... to the  
Frigid Cold...**

**... and Everywhere In Between**

**Zeltex**  
Inc.

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

# Portable Fuel Analyzer

## from the Desert Heat to the Frigid Cold and Everywhere in Between

### Superior Technology

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

### Specially Designed for Field Use

The ZX-101RZ is specially designed for rugged conditions with a watertight mil spec case and shock mounted components. With a normal warm up time of less than one minute, and an analysis period of less than 30 seconds, the ZX-101RZ provides analysis when you need it most, where you need it most.

### Additional Features for Improved Performance

The ZX-101RZ features sealed solid state design for long term durability.

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

The ZX-101RZ is available with an optional GPS locator allowing personnel to document and verify the time and location of each analysis.

### Who Uses Zeltex Technology?

#### Military

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

#### Government Inspection Agencies

- At the pump inspections
- Over 45 states already use Zeltex Analyzers for their field inspectors
- Used in over 50 countries worldwide

#### Service Stations/Gasoline Retailers

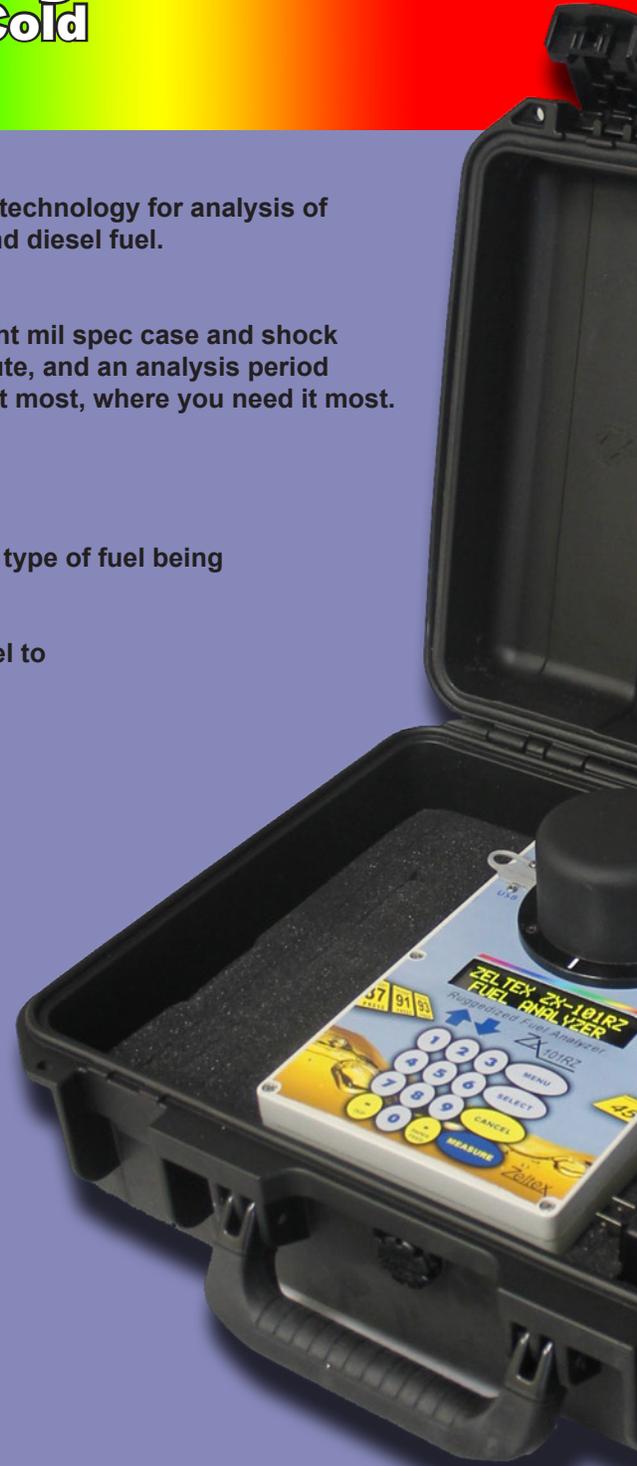
- Make sure you're not giving octane away
- Make sure you get what you're paying for

#### Blending Stations

- Ensure that your delivery vehicles are delivering the proper blends

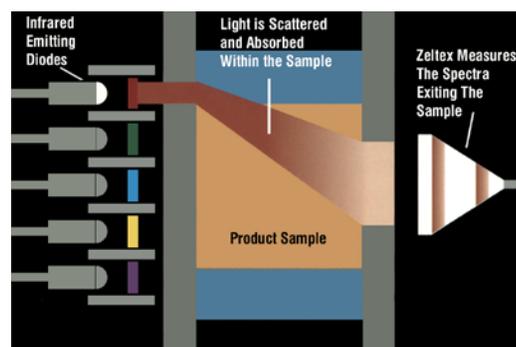
#### Refineries & Terminal Docks

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



## How It Works: Applied Science In Measurement

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



**Over 5000**

**Zeltex Octane Analyzers  
in the Field Today!**



## Unique Design Features Add Versatility, Dependability and Convenience

- Automatic fuel detection (Gasoline/E-Gas/Diesel)
- Normally less than one minute warm up time
- Stores data for up to 100 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 30 seconds
- Self-standardizing to ensure accuracy
- Easy-loading sample holder
- Easy-to-read LCD display
- Included printer provides time and date of analysis
- Optional GPS locator - GPS data is printed and stored
- USB port for PC interface
- $[(R+M)/2]$ , RON, MON, Percent Ethanol
- Can store up to 10 separate gasoline formula calibrations
- Small, lightweight, and easy to use
- Operates on internal, rechargeable batteries, "AA" battery pack, 12 volt, or AC/DC

## A Proven Track Record - Used Worldwide

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

## Control Quality - Control Costs

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

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

***Making Portable Fuel Analysis A  
Reality In The Harshest Conditions...***



# Specifications

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## Function

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

## System Capabilities

Precalibrated for .....	Octane number RON, MON, (R+M)/2, Percent Ethanol
Optional Calibrations .....	Diesel cetane index, cetane number
Outputs .....	LCD display, printer
Data Transfer .....	Via USB 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 100 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 30 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 .....	19" X 15" X 9"
Weight .....	12 lbs.

## Installation Data

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

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...Where You Need It Most  
...When You Need it Most™

**Zeltex**  
Inc.  
ISO 9001 Certified