

XOS Elemental Analyzers



www.hoskin.ca

Supplying Testing & Monitoring Instruments Since 1946

For over seventy years, Hoskin Scientific has been a supplier of testing and monitoring instrumentation to the Canadian market. With offices in Vancouver, Burlington, and Montréal our customers are able to receive local sales and technical support in our three major departments.

Our Materials Testing Department offers testing equipment for petroleum, asphalt, concrete, cement, aggregates and soil. Our qualified sales associates focus on providing a sophisticated range of testing equipment complying with the various test methods, ensuring that accurate and consistent test results are always obtained.

Our Environmental Department provides solutions for monitoring and sampling biological and chemical parameters in the environment. Our team of environmental sales representatives and diverse product range guarantee that you will find the right products for your application. Specific areas include: water quality, water quantity, soil moisture, plant science, weather stations, indoor air quality, aquatic sampling, and oceanography.

Our Instrumentation Department focuses on a wide range of products including optical camera systems, transducers and transmitters, data acquisitions and loggers, signal conditioners and indicators, automation sensors and measurement systems. We have technical sales associates that are trained in various areas and willing to help you with your instrumentation requirements.

Sulfur Analyzers

Sindie 7039 M-Series Sulfur Analyzer..... 4
Sindie 2622-G2 Bench Top Analyzer..... 5
Sindie 2622-G3 Bench Top Analyzer..... 6
Sindie On-The-Go Portable Analyzer 7
Sindie Online Analyzer 8
Petra Max & Petra 4294 Analyzers 9
Sindie + Cl Sulfer and Chlorine Analyzer 10

Chlorine Analyzers

Clora® Bench-Top Analyzer 11
Clora® 2XP Bench-Top Analyzer..... 12
Clora® Online Analyzer 13

Phosphorous Analyzer

Phoebe® Benchtop Analyzer 14

Silicon Analyzer

Signal M Series 15



Sindie 7039 Sulfur Analyzer

Sindie 7039 complies with **ASTM D7039 and ISO 20884 methods**, and enables fast batch testing from 0.15 – 3000 ppm for sulfur fuel samples at petroleum pipeline terminals, refineries, and test laboratories. This unit is compact and fits on any lab bench with an easy-to-use and robust design requiring minimal maintenance. Sindie 7039 offers many advantages over competing technologies: It has exceptional signal-to-noise ratio, and does not require consumable gases or high-temperature operations.

Applications:

- Total sulfur analysis from ultra low sulfur fuels to crudes
- For use in refinery labs, pipeline terminals, additive plants, testing vans and inspection laboratories

Features & Benefits:

- LOD: 0.4 ppm at 300 s
- Dynamic Range: 0.4 ppm - 3000 ppm
- Easy to use
 - Intuitive touch screen
 - Just plug-in and measure
 - Measurement time: 30-900 s
- Extremely low maintenance: no conversion gasses, heating elements, columns, or quartz tubing
- 75 W air-cooled excitation tube

Technical Specifications

| Technical Specifications | | |
|--------------------------|--------------------|----------------------|
| Sindie 7039 Gen 2 | Dynamic Range | 0.4 ppm to 3000 ppm |
| | Limit of Detection | 0.4 ppm at 300 s |
| | Sample Cup | Traditional XRF |
| Sindie 7039 Gen 3 | Dynamic Range | 0.15 ppm to 3000 ppm |
| | Limit of Detection | 0.15 ppm at 300 s |
| | Sample Cup | Accucell |
| | Options | 8-cell Autosampler |



Sindie 2622-G2 Bench Top Analyzer

Sindie 2622 complies with **ASTM D2622, D7039 and ISO 20884 methods**, enabling complete flexibility in sulfur analysis. No compromises in detection, performance and reliability — it is the ideal sulfur analytic solution from ultra-low sulfur diesel and gasoline, to heavy fuel oil and crude.

Applications:

- Total sulfur analysis from ultra low sulfur fuels to crudes
- For use in refinery labs, pipeline terminals, additive plants and inspection laboratories

Features & Benefits:

- LOD: 0.4 ppm at 300 s
- Dynamic Range: 0.4 ppm to 10 wt%
- Easy to use
 - Intuitive touch screen
 - Just plug-in and measure
 - Measurement time: 30-900 s
- Low and high range calibrations available:
 - Low Range: 0.4 ppm - 3000 ppm
 - High Range: 0.3 wt% - 10 wt%
- Extremely low maintenance: no conversion gasses, heating elements, columns, or quartz tubing
- 75 W air-cooled excitation tube
- Fits on any lab bench

Options:

- 8-cell Autosampler
- Helium optical path available
- LIMS data output compatible software

Product Specifications

| | |
|-----------------------------------|--|
| Model: | Sindie 2622 Gen 2 |
| Test Method: | ASTM D7039, D2622 and ISO 20884 |
| Dimensions: | 37 cm (w) x 50 cm (d) x 34 cm (h) |
| Power: | 100-120 VAC, 47-63 HZ at 6.0 Amps 200-240 VAC, 47-63 HZ at 6.0 Amps |
| Sample Cup Volume: | 10 ml |
| Ambient Temperature Requirements: | 5-40° C (40-104° F) |
| Dynamic Range: | 0.4 ppm - 10 wt% |
| Measurement: | User selectable: 30-900 s |
| Calibration: | 8 calibration curves. Automatic and manual calibration functionality |
| Optical Path: | Vacuum (helium available) |



Sindie 2622-G3 Bench Top Analyzer

Sindie® 2622 Gen 3 complies with **ASTM D2622, D7039 and ISO 20884 methods**, enabling complete flexibility in sulfur analysis. With no compromises in detection, performance and reliability, Sindie 2622 is the ideal sulfur analytical solution from ultra low sulfur diesel and gasoline to heavy fuel oil and crudes.

Applications:

- Total sulfur analysis from ultra low sulfur fuels to crudes
- For use in refinery labs, pipeline terminals, additive plants and inspection laboratories

Features & Benefits:

- LOD: 0.15 ppm at 300 s
- Dynamic Range: 0.15 ppm to 10 wt%
- Easy to use
 - Intuitive touch screen
 - Just plug-in and measure
 - Measurement time: 30-900 s
- Low and high range calibrations available:
 - Low Range: 0.15 ppm - 3000 ppm
 - High Range: 0.3 wt% - 10 wt%
- Extremely low maintenance: no conversion gasses, heating elements, columns, or quartz tubing
- 75 W air-cooled excitation tube
- Fits on any lab bench
- Use Accucells for hassle-free sample prep

Options:

- 8-cell Autosampler
- Helium optical path available
- LIMS data output compatible software

Product Specifications

| | |
|-----------------------------------|--|
| Model: | Sindie 2622 Gen 3 |
| Test Method: | ASTM D7039, D2622 and ISO 20884 |
| Dimensions: | 37 cm (w) x 50 cm (d) x 34 cm (h) |
| Power: | 100-120 VAC, 47-63 HZ at 6.0 Amps 200-240 VAC, 47-63 HZ at 6.0 Amps |
| Sample Cup Volume: | 1 ml |
| Ambient Temperature Requirements: | 5-40° C (40-104° F) |
| Dynamic Range: | 0.15 ppm - 10 wt% |
| Measurement: | User selectable: 30-900 s |
| Calibration: | 8 calibration curves. Automatic and manual calibration functionality |
| Optical Path: | Vacuum (helium available) |



Sindie On-The-Go Portable Analyzer

Sindie On-The-Go is a portable sulfur analyzer delivering quality results from ULSD and gasoline, to marine fuels and crudes. It is the ideal solution for users who require flexibility of operating in-the-field, on-board marine environments, laboratories, and is compatible for use in mobile labs/vans. Powered by MWDXRF, this instrument requires very little maintenance with no conversion gasses, heating elements, quartz tubes or columns. Sindie On-The-Go complies with **ASTM D7039 and ISO 20884 methods.**

This model utilizes Accu-cell sample cups for hassle-free sample prep.

Applications:

- Total sulfur analysis from ultra low sulfur fuels up to crude
- For refinery labs, pipeline terminals, on-board use, additive plants, testing vans and inspection laboratories

Features & Benefits:

- LOD: 0.7 ppm at 900 s
- Dynamic Range: 0.7 ppm - 10 wt%
- Use Accucells for hassle-free sample prep
- Fits on any bench and compatible for use in mobile labs/vans
- Dimensions: 34cm (w) x 23.5cm (d) x 30cm (h)
- Weight: 18.5 kg
- Utility: Standard wall power: 100-240 VAC at 2.2 A
- Extremely low maintenance: no conversion gasses, heating elements, columns, or quartz tubing
- Easy to use
 - Intuitive touch screen
 - Just plug-in and measure
 - Measurement time: 30-900 s
- 20 W air-cooled excitation tube

Product Specifications

| | |
|-----------------------------------|--|
| Model: | Sindie OTG (On The Go) |
| Test Method: | ASTM D7039 and ISO 20884 |
| Dimensions: | 34 cm (w) x 23.5 cm (d) x 30 cm (h) |
| Power: | 100-240 VAC at 2.2 Amps |
| Sample Cup Volume: | 1ml |
| Ambient Temperature Requirements: | 5-35° C (40-95° F) |
| Dynamic Range: | 0.7 ppm to 10 wt% |
| Measurement: | 30-900 s |
| Calibration: | 8 calibration curves. Automatic and manual calibration functionality |

Sindie Online Analyzer

Sindie® Online is an industrial grade process sulfur analyzer with breakthrough detection capability to monitor ultra low sulfur in petroleum or aqueous process streams. This process analyzer presents the ultimate solution for refineries and pipeline terminals where measurement speed and reliability are essential. Powered by MWDXRF Sindie Online uses **ASTM D7039** technology and delivers real-time, continuous analysis of total sulfur from 0.5 ppmw up to 3000 ppmw. This process analyzer is ATEX and NEC certified for hazardous area locations.

Applications:

- Refinery, hydrotreating, hydrofiner, and blending processes
- Pipeline terminals: interface cuts, custody transfer acceptance, and tank contamination prevention

Features:

- Uses ASTM D7039 technology
- LOD: 0.5 ppmw in hydrocarbon matrices @ 300 s
- LOD: 1.5 ppmw in aqueous streams @ 300 s
- Dynamic range: 0.5 ppmw – 3000 ppmw
- For most application purposes, one calibration curve over full dynamic range
- Robust industrial design: wall mounted or stand alone
- Continuous, real-time analysis
- Rapid response to sample change
- Easy to use with intuitive touch screen interface
- Direct measurement in ppm wt
- Low Maintenance: no consumable liquids, gasses, combustion, or sample conversion

Options:

- Multi-stream analysis capability
- Extended Range (XR) available for measurements above 3000 ppmw up to weight percent levels
- Auto-validation capability

Benefits:

- Continuous, real-time analysis
- Rapid response to sample change
- Easy to use with intuitive touch screen interface
- Direct measurement in ppm wt
- Low Maintenance: no consumable liquids, gasses, combustion, or sample conversion
- Not sensitive to sample temperature changes



Product Specifications

| | |
|-----------------------------------|---|
| Analytical Platform: | MWDXRF |
| Dynamic Range: | Hydrocarbon: 0.2 ppmw - 3000 ppmw / Aqueous: 0.6 ppmw - 3000 ppmw |
| Response Time: | 300 s for precise measurement, 15 s for rapid update |
| Calibration: | 3-5 point linear calibration curve |
| Data Communication: | 2x 4-20 mA analog outputs, multiple discrete alarm outputs |
| Digital Communication: | Modbus TCP, Modbus RS-232, Modbus RS-485 (half or full duplex) |
| Local HMI: | Touch screen display |
| Remote Diagnostics: | Optional via TCP/IP or UDP |
| Power: | 110-240 VAC, 50-60 Hz, 790 W max. |
| Instrument Air - Purge and Valve: | 60-115 psig, (414-793 kPa) 4 scfm max; -40 F (-40 C) dewppoint, oil free, N2 optional |
| Ambient Temperature: | 32-95 F (0-35 C) Standard; -4 to 113 F (-20 to 45 C) Optional - Consult Factory |
| Dimensions: | 60 in (h) x 38 in (w) x 18 in (d) / 152 cm (h) x 97 cm (w) x 46 cm (d) |
| Weight: | 300 lbs (136 kg) |
| Certifications: | ATEX Zone 1 Ex db ia [ia Ga] pxb IIC T4 Gb; CE, NEC Class I Div 2 Groups B,C,D T4A |

Petra Max & Petra 4294



The Petra series complies with **ASTM D4294 and ISO 8754** for sulfur analysis in various hydrocarbon matrices. Petra MAX delivers D4294 sulfur analysis in addition to 12 elements from P to Zn, for rapid monitoring of critical elements like Ca, Fe, K, Ni, and V at sub-ppm levels. Petra MAX offers advanced precision with HDXRF, advanced reliability, and advanced software and data management. Petroleum laboratories depend on reliable, robust analytical solutions for their fast-paced environment. Petra MAX was designed to meet these needs with an innovative sample introduction system that directs accidental spills to a drip tray and away from valuable components.

Petra MAX Autosampler offers a more efficient workflow with sample tracking and continuous sample loading. Users can eliminate data errors and add urgent samples to the queue as needed.

| Dynamic Range, LOD & Applications | | | | | | | |
|-----------------------------------|------------------------------------|-------------------------|------|------|-----|-----|------|
| Petra MAX | Dynamic Range | Sulfur 5.7 ppm – 10 wt% | | | | | |
| | Limit of Detection (ppm @ 600 s) | Sulfur 5.7 ppm | | | | | |
| | | P | Lc | K | Ca | V | Cr |
| | | 17 | 3 | 0.7 | 0.4 | 0.1 | 0.09 |
| Applications | Mn | Fe | Co | Ni | Cu | Zn | |
| | 0.07 | 0.07 | 0.07 | 0.04 | 0.1 | 0.1 | |
| | Hydrocarbons, water, and catalysts | | | | | | |
| Petra 4294 | Dynamic Range | Sulfur 2.6 ppm – 10 wt% | | | | | |
| | Limit of Detection (ppm @ 600 s) | Sulfur 2.6 ppm | | | | | |
| | Applications | Hydrocarbons | | | | | |

| Petra Series Specifications | |
|-----------------------------|--|
| Method Compliance | ASTM D4294, ISO 8754 & IP 336 |
| Measurement Time | 30-900 seconds |
| Calibration | 30 calibration curves |
| Sample Cup Volume | 7 mL |
| Data Output | Printout, USB, and Ethernet to PC connection |
| I/O Ports | Ethernet 10/100, USB |
| Power Supply | 110-240 VAC ± 10%, 50-60 Hz (hertz) |
| Operating Temperature | +41°F to 104°F (5°C to 40°C) |
| Operating Humidity | 30 – 85 % |



Sindie +Cl

Sindie +Cl is a sulfur and chlorine analyzer delivering two critical measurements with one push of a button and zero hassle. It is the ideal solution for refineries and independent labs to certify sulfur levels in finished products and assess chlorine for corrosion mitigation, all with one instrument. Sindie +Cl utilizes a technique known as Monochromatic Wavelength Dispersive X-ray Fluorescence (MWDXRF) - delivering exceptional reproducibility. Samples are measured directly, which means it can analyze even the heaviest of hydrocarbons like crude oil or coker residuals without the hassles of boats, injectors, furnaces, or changing detectors.

Applications:

- Total sulfur analysis from ultra low sulfur fuels to crudes
- Total chlorine analysis from aqueous solutions and aromatic products to heavy fuels, crudes, and catalyst
- For use in refinery labs, pipeline terminals, additive plants and inspection laboratories

Features & Benefits:

- Sulfur
 - LOD: 0.4 ppm at 300 s
 - Dynamic Range: 0.4 ppm to 5 wt%
- Chlorine
 - LOD: 0.3 ppm at 300 s
 - Dynamic Range: 0.3 ppm to 3000 ppm
- Extremely low maintenance: no conversion gasses, heating elements, columns, or quartz tubing
- Automatic sulfur correction for chlorine
- Easy to use
 - Intuitive touch screen
 - Just plug-in and measure
 - Measurement time: 30-900 s
 - Fits on any lab bench

Options:

- LIMS data output compatible software

| Product Specifications | |
|----------------------------------|--|
| Test Method | ASTM D2622, D7039, D7536, D4929 and SH / T 0842 |
| Dimensions | 37 cm (w) x 50 cm (d) x 34 cm (h) |
| Power | 100-120 VAC, 47-63 HZ at 6.0 Amps 200-240 VAC, 47-63 HZ at 6.0 Amps |
| Sample Cup Volume | 10 ml |
| I/O Ports | Ethernet 10/100 base T, RS232 |
| Ambient Temperature Requirements | 5-40° C (40-104° F) |
| Dynamic Range | Sulfur: 0.4 ppm - 5 wt% Chlorine: 0.3 ppm - 3000 ppm |
| Measurement | User selectable: 30-900 s |
| Calibration | 8 calibration curves. Automatic and manual calibration functionality |



Clora® Bench-Top Analyzer

Clora benchtops are compliant with **ASTM D7536 and D4929 standards**, and deliver a limit of detection of 0.13 ppm and a dynamic range up to 3000 ppm. Clora is powered by MWDXRF, the same technology found in our signature sulfur analyzer, Sindie. This direct measurement technique does not require gasses or high temperature processes equating to easy operation and minimum maintenance requirements.

Clora offers many features such as extended range with and without catalyst, autosampler, and Accu-flow.

Accu-flow technology eliminates particle settling and delivers results that better reflect crude streams as they exist in the refinery. Over a typical measurement cycle, the heavier particles can settle to the bottom of the sample cup and cause higher than normal results.

Applications:

- Total chlorine analysis from aqueous solutions and aromatic products to heavy fuels, crudes, and catalyst
- For refineries, petrochemical and additive plants, pipeline terminals, and test laboratories

Features & Benefits:

- LOD: 0.13 ppm for hydrocarbons
- LOD: 0.3 ppm for aqueous samples
- Dynamic Range: 0.13 ppm to 3000 ppm
- Fits on any lab bench
- Easy to use
 - Intuitive touch screen
 - Just plug-in and measure
 - Measurement time: 30-900 s
- Extremely low maintenance: no conversion gasses, heating elements, columns, or quartz tubing

Options:

- LIMS data output compatible software
 - Extended Range (XR): 0.13 ppm to 4 wt%
 - Catalyst testing capability
 - Accu-flow*
 - 8-cell Autosampler*
 - Accucell Sample Basket Available
- * Accu-flow and Autosampler options cannot be combined.

Product Specifications

| | |
|-----------------------------------|--|
| Model: | Clora |
| Test Method: | ASTM D7536 and D4929 |
| Dimensions: | 37 cm (w) x 50 cm (d) x 34 cm (h) |
| Power: | 100-120 VAC, 47-63 HZ at 6.0 Amps/ 200-240 VAC, 47-63 HZ at 6.0 Amps |
| Sample Cup Volume: | 10ml |
| Ambient Temperature Requirements: | 5-40° C (40-104° F) |
| Dynamic Range: | Standard: 0.13 ppm to 3000 ppm Extended Range (XR): 0.13 ppm to 4 wt% |
| Measurement: | 30-900 s |
| Calibration: | 8 calibration curves. Automatic and manual calibration functionality |

Clora® 2XP



Clora 2XP complies with **ASTM D7536 method**, and is ideal for testing related to catalyst poisoning in reformers, or for sites with fluid catalytic crackers and hydrocrackers. It delivers twice the precision and offers exceptional analysis for the determination of chlorine in liquid hydrocarbon samples such as aromatics, distillates and heavy fuels, and aqueous solutions. Clora 2XP is powered by the same MWDXRF technology as our signature instrument - Sindie. This direct measurement technique does not require gasses or high temperature processes equating to easy operation and minimum maintenance requirements.

Applications:

- Total chlorine analysis from aqueous solutions and aromatic products to heavy fuels and crudes
- For refineries, petrochemical and additive plants, pipeline terminals and test laboratories

Features & Benefits:

- LOD: 0.07 ppm in 600 s
- Dynamic Range: 0.07 ppm - 2 wt%
- Automatic sulfur correction
- Fits on any lab bench
- Easy to use
 - Intuitive touch screen
 - Just plug-in and measure
 - Measurement time: 30-900 s
- Extremely low maintenance: no conversion gasses, heating elements, columns, acids, or quartz tubing
- Replaceable air-cooled X-ray tube

Options:

- LIMS data output compatible software

| Product Specifications | |
|----------------------------------|--|
| Model | Clora2XP |
| Test Method | ASTM D7536 and D4929 |
| Dimensions | 37 cm (w) x 50 cm (d) x 34 cm (h) |
| Power | 100-120 VAC, 47-63 HZ at 6.0 Amps 200-240 VAC, 47-63 HZ at 6.0 Amps |
| Sample Cup Volume | 10ml |
| Ambient Temperature Requirements | 5-40° C (40-104° F) |
| Dynamic Range | 0.07 ppm - 2 wt% |
| Measurement | 30-900 s |
| Calibration | manual calibration functionality |

Clora® Online Analyzer

Chlorine is often present in crude oils and the concentration can vary greatly depending on the origin. If not removed, Chlorine can react to form highly corrosive hydrochloric acid in areas such as crude tower overheads, leading to serious operational issues, economic loss and safety concerns. The need for a reliable online chlorine analyzer for refining process control is more important than ever. Clora Online utilizes **ASTM D7536** technology, and delivers continuous chlorine analysis to monitor plant equipment corrosion. By monitoring desalted crude, a plant can optimize performance and immediately see impacts of crude changes (including organic chloride). Additionally, monitoring overhead water can provide the necessary feedback for chemical feed.

Applications:

- Upstream desalting, refining, power generation and effluent management
- Total chlorine analysis in:
 - raw and desalted crudes
 - water and effluent streams
 - refinery process streams
 - finished product

Benefits:

- Continuous, real-time analysis
- Rapid response to upsets
- Easy to use with intuitive touch screen interface
- Direct measurement in ppm wt
- Low Maintenance: no consumable liquids, gasses, combustion, or sample conversion
- Not sensitive to sample temperature changes

Benefits:

- Multi-stream analysis capability
- Auto-validation capability



Features:

- Uses ASTM D7536 technology
- ATEX Zone 1 and NEC CI | Div 2 Certified
- LOD: 0.2 ppmw in hydrocarbon matrices @ 300 s
- LOD: 0.6 ppmw in aqueous streams @ 300 s
- Dynamic range: 0.2 ppmw – 3000 ppmw
- Calibration is linear up to 3000 ppmw and one calibration curve runs all hydrocarbon matrices
- Robust industrial design: wall mounted or stand alone

Product Specifications

| | |
|----------------------------------|---|
| Analytical Platform | MWDXRF |
| Dynamic Range | Hydrocarbon: 0.2 ppmw - 3000 ppmw / Aqueous: 0.6 ppmw - 3000 ppmw |
| Response Time | 300 s for precise measurement, 15 s for rapid update |
| Calibration | 3-5 point linear calibration curve |
| Data Communication | 2x 4-20 mA analog outputs, multiple discrete alarm outputs |
| Digital Communication | Modbus TCP, Modbus RS-232, Modbus RS-485 (half or full duplex) |
| Local HMI | Touch screen display |
| Remote Diagnostics | Optional via TCP/IP or UDP |
| Power | 110-240 VAC, 50-60 Hz, 750 W max. |
| Instrument Air - Purge and Valve | 60-115 psig, (414-793 kPa) 4 scfm max; -40 F (-40 C) dewppoint, oil free, N2 optional |
| Ambient Temperature | 32-95 F (0-35 C) Standard; -4 to 113 F (-20 to 45 C) Optional - Consult Factory |
| Dimensions | 60 in (h) x 38 in (w) x 18 in (d) / 152 cm (h) x 97 cm (w) x 46 cm (d) |
| Weight | 300 lbs (136 kg) |
| Certifications | ATEX Zone 1 Ex db ia [ia Ga] pxb IIC T4 Gb; CE, NEC Class I Div 2 Groups B,C,D T4A |



Phoebe®

From crude oil to bio-fuels, in additives or water, Phoebe benchtop analyzers deliver exceptional precision and accuracy for complete phosphorus analysis. It is very easy to operate with an intuitive touchscreen enabling use in various industrial environments. Phoebe is hassle-free and does not require extensive sample preparation, consumable gasses or sample conversion. Phoebe is available with Accu-flow.

Applications:

- Total phosphorus analysis in hydrocarbons, bio-fuels and aqueous matrices
- For use in refinery, additive plants, oil recycle facilities and test labs

Features & Benefits:

- LOD: 0.4 ppm at 600 s
- Dynamic Range: 0.4 ppm to 3000 ppm
- Automatic sulfur correction
- Fits on any lab bench
- Robust touch-screen user interface
- User programmable measurement time: 30-900 s
- Extremely low maintenance: no conversion gasses, heating elements, columns, or quartz tubing
- Low power air-cooled excitation X-ray tube

Options:

- LIMS data output compatible software
- Accu-flow

| Product Specifications | |
|-----------------------------------|--|
| Model: | Phoebe |
| Test Method: | ASTM D7536 and D4929 |
| Dimensions: | 37 cm (w) x 50 cm (d) x 34 cm (h) |
| Power: | 100-120 VAC, 47-63 HZ at 6.0 Amps 200-240 VAC, 47-63 HZ at 6.0 Amps |
| Sample Cup Volume: | 10ml |
| Ambient Temperature Requirements: | 5-40° C (40-104° F) |
| Dynamic Range: | 0.07 ppm - 2 wt% |
| Measurement: | 30-900 s |
| Calibration: | 8 calibration curves. Automatic and manual calibration functionality |

Signal M Series

Signal complies with **ASTM D7757** and delivers quantitative analysis of silicon (Si) from gasoline to ethanol, and toluene. Silicon contamination continues to impact fuel quality, resulting in costly engine failures and catalyst fouling. Powered by MWDXRF, Signal provides exceptional Si analysis and is an ideal solution for demanding petroleum and industrial environments.

Applications:

- Total silicon analysis in hydrocarbons and bio fuels
- For use in refinery labs, pipeline terminals, additive plants, and inspection laboratories



Features & Benefits:

- LOD: 0.65 ppm at 600 s
- Dynamic Range: 0.65 ppm - 3000 ppm
- Fits on any lab bench
- Touch Screen user interface
- User programmable measurement time: 30-900 s
- No conversion gasses, heating elements, quartz tubes or columns
- 75 W air-cooled excitation tube

Options:

- LIMS data output compatible software

| Product Specifications | |
|----------------------------------|--|
| Model | Signal |
| Test Method | ASTM D7757 |
| Dimensions | 37 cm (w) x 50 cm (d) x 34 cm (h) |
| Power | 100-120 VAC, 47-63 HZ at 6.0 Amps 200-240 VAC, 47-63 HZ at 6.0 Amps |
| Sample Cup Volume | 10ml |
| Ambient Temperature Requirements | 5-40° C (40-104° F) |
| Dynamic Range | 0.65 ppm - 3000 ppm |
| Measurement | User selectable: 30-900 s |
| Calibration | 8 calibration curves. Automatic and manual calibration functionality |

Hoskin Scientific Limited has been supplying testing and monitoring instruments since 1946. Although our range is broad, we focus on three major markets including:

Geotechnical & Materials Testing
Environmental Monitoring
Test & Measurement Instrumentation

Hoskin Scientific operates out of three offices within Canada with an additional service centre in Edmonton, AB :

Western Canada

3735 Myrtle Street
Burnaby, BC V5C 4E7
T: (604) 872-7894
F: (604) 872-0281
salesv@hoskin.ca

Ontario & Atlantic Canada

Unit 5-3280 South Service Rd, W
Oakville, ON L6L 0B1
T: (905) 333-5510
F: (905) 333-4976
salesb@hoskin.ca

Québec

300 Rue Stinson
Saint-Laurent, QC H4N 2E7
T: (514) 735-5267
F: (514) 735-3454
salesm@hoskin.ca

Edmonton Service Centre

Unit 100, 18138 105th Avenue
Edmonton, AB T5S 2T4
T: (780) 434-2645
edmontonservice@hoskin.ca

www.hoskin.ca

