Spectro Scientific
Confidence in knowing

- Water
- TAN
- TBN
- Oxidation
- Nitration
- Sulfation
- Soot
- Additive depletion

FluidScan® Q1100

HANDHELD INFRARED OIL ANALYZER

Route-enabled, Solvent-free, Immediate Results

The FluidScan® Q1100 provides direct quantitative measurement of a lubricant's condition and plays an important role in predictive maintenance.

Reduce unscheduled downtime and increase availability of critical equipment by monitoring oil degradation and contamination.

The FluidScan rapidly determines oil degradation and water contamination levels that lead to machinery corrosion and wear, the principal causes of equipment downtime.

Applications include mineral and synthetic oils used in machinery components such as gear boxes, compressors, hydraulic systems, turbine and transmissions as well as diesel engines such as back-up generators.

Eliminate unneeded oil changes

Extend the life of machine oils by determining when the oil is no longer fit for use due to water contamination or oil degradation. Move from time-based to condition-based oil change intervals. Save on labor, oil, oil disposal costs and equipment availability.

Reduce unscheduled downtime

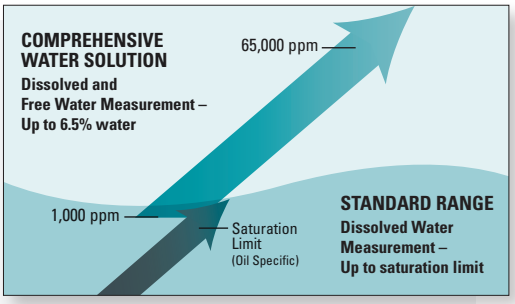
Improve the health and uptime of your mechanical assets by monitoring the condition of your lubricant systems. FluidScan makes it easy to test the key properties of oil condition, on-site with immediate results.

Fast and easy to use

The analyzer is a practical alternative to lab-based testing. It delivers actionable information with speed and accuracy, but without the need for an expert user, dedicated space or hazardous solvents.

Comprehensive test for water contamination (patent pending)

The FluidScan includes an innovative test methodology for both dissolved and free water and is a practical alternative to more complex tests such as Karl Fischer titrations.

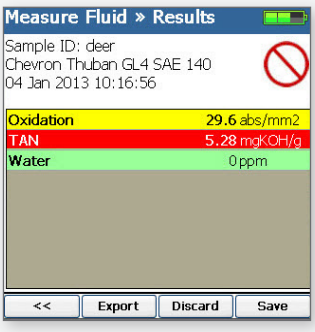


Accurate determination of oil degradation

The FluidScan correlates to TAN and TBN measurements made with the ASTM D664 and D4739 titration methods.

Simple results display and data handling

The device software displays interpreted test results, including oil health determination. Data can be exported to companion software, including the AMS OilView LIMS module.



FluidScan Q1100 Ordering Information

The FluidScan® Q1100 includes the FluidScan device, battery charger, USB cable, USB flash drive, and the Fluid Manager Suite, which contains the Fluid Manager desktop application, user manuals, and a backup copy of the FluidScan device software and oil library. The Industrial oil library license is included; specify at time of order if purchasing the full library license or Comprehensive Water Solution. The FluidScan standard accessories kit includes cleaning pads and pipettes for 100 samples and the IR check fluid.

FluidScan can also be ordered in a combination kit with the SpectroVisc Q3050 portable viscometer. The battery-operated SpectroVisc Q3050 is a 40C kinematic viscometer. It uses a few drops of oil to measure viscosity and does not require solvents to clean between samples.

FluidScan Q1100 & Q3050 Viscometer Combination Kit

PART NUMBER	
FluidScan-Q1100	Q1100 FluidScan. Requires SA1001 Accessory Kit.
SA1001	FluidScan Standard Accessory Kit
Spectro Q1100/Q3050	FluidScan Q1100 & Q3050 Viscometer Combination Kit. Requires SA1022 Accessory Kit.
SA1022	Spectro Combination Kit Standard Accessory Kit
400-00051	Comprehensive Water Solution with Portable Homogenizer and license, 115 V, 60 Hz charger
400-00053	Comprehensive Water Solution with Portable Homogenizer and license, 220 V, 50 Hz charger
400-00092	Comprehensive Water Solution with Table top Homogenizer and license, 115 V, 60 Hz
400-00093	Comprehensive Water Solution with Table top Homogenizer and license, 220 V, 50 Hz
PRODUCT INFORMATION	
Application Library	Mineral and synthetic lubricants including gear, engine, transmission, hydraulics, turbine and biodiesels
Output (varies by fluid type and application)	TAN (mgKOH/g), TBN (mgKOH/g); Oxidation (abs/mm2); Nitration (abs/cm); Sulfation (abs/mm2); Water, ppm (dissolved, dissolved + free water with Comprehensive Water Solution option); Glycol (% by weight); Soot (% by weight); Incorrect Fluid (% by weight); Antioxidant Depletion (% remaining); Antiwear Depletion (% by weight).
Methodology	ASTM D7889, ASTM E1655, E2412 modified
Standard Analytical Range	Mid infrared range 950-3850 cm-1
Accuracy	≤ ± 3% of measured value, typical
Repeatability	≤ ± 6% of measured value, typical
Calibration	Factory calibrated to wet chemistry methods ASTM D664 for TAN and ASTM D4739 for TBN. Use Check Fluid for instrument validation.
OPERATIONAL SPECIFICATIONS	
Sample Volume	100 µL (about 3 drops)
Solvents/Reagents	None
Ambient Operating Temperature	10°C to 50°C (14°F to 122°F)
Relative Humidity	0 to 100%, non-condensing
Ambient Altitude	up to 5,000 meters (16,404 feet)

USER INTERFACE SPECFICATIONS	
Software/Operating System	Microsoft Windows® CE
Display	320 x 320 transflective color screen
Data Storage	Up to 5,000 analyses
Data Transfer	USB for data updates and synchronization
Data Entry	Directional pad and soft buttons
POWER REQUIREMENTS	
Battery Power Source	Built in Rechargeable Lithium Ion Battery
Power	AC 110/240 V, 50/60 Hz, 10 Watts
Typical Runtime	6-8 hours
Recharge Time	6.5 hours
MECHANICAL SPECIFICATIONS	
Dimensions	240 mm (H) x 140 mm (W) x 70 mm (D) (9.5 in x 5.5 in x 2.75 in)
Weight	1.4 kg (3 lbs)
Shipping package dimensions	17.1 cm (H) x 6.3 cm (W) x 5.5 cm (L); (18 in x 16 in x 14 in)
Shipping package weight	8.1 kg, (18 lbs)

COMPLIANCE

CE Mark: EMC Directive (2004/108/EC); RoHS

ACCESSORIES & CONSUMABLES	
A475101	Oilview LIMS software
FL310	IR Check Fluid 5 mL
PV1011	Disposable Non-Abrasive Cleaning Pads; package of 500
P-11052	60 µL Disposable Pipettes, package of 500
PV1012	60 µL Disposable Pipettes & Non-Abrasive Cleaning Pad Kit; pkg. of 100 each
FL360	Reference Fluid Application Library – all categories
P-11178	Pipette tips for positive displacement pipette (used with Q3050), package of 192

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