

FluidInspectIR® - Portable Oil Condition Analyser

Summary Information:

- Measurement of key degradation and contamination parameters in oils and lubricants.
- Engine, Gearbox, Turbine, Hydraulic oils and others.
- Oxidation, Nitration, Sulphation, Water, Soot, Glycol (abs/cm).
- TAN, TBN (mgKOH/g), ipH, Viscosity, Phenol Anti-oxidant.
- Correlates to ASTM / DIN .
- Can be configured for Group I-V base oils
- Portable and Benchtop operated.



Product Description:

The FluidInspectIR Portable Oil Condition Analyser uses Mid Infrared Spectroscopy to extract the key oil degradation parameters of a process oil / lubricant. The Analyser is basically maintenance free being exclusively constructed from solid state dispersion elements, a black body infrared emitter and infrared sensor element. The Analyser comes with a sophisticated but user-friendly software which is run from a connected tablet/laptop. It can be portably operated with a battery or mains supplied as a benchtop device. The system comes in a briefcase setup complete with utilities to perform the measurements

Application:

The FluidInspectIR analyser measures key oil degradation parameters with the same accuracy and displays these oil parameters in the same units as asset owners are used to from conventional oil laboratories reports. The analyser can be easily configured for most oil types and applications and comes with interchangeable flow-cells depending on the oil application.

How to use:

The 2-3ml of oil sample is dispensed into the inlet tubing of the flow-cell via a syringe. The flow-cell is placed into the analyser and the measurement is started from the software. The software is an easy-to-use GUI ran from a Tablet / Laptop (windows 10).

After about 30s the measured parameters of the sample will be displayed. The user can add traffic light specification (green/yellow/red) limits to aid the interpretation of the results. The flow cell is subsequently flushed through with a new oil sample ready for the next measurement.

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Specification:

GUI: Software Console provided for running on windows 10 based laptop / tablet (tablet can be provided as option)

Ambient operating temperature and humidity range: 0-70C non -condensing

Power requirement: 230VAC for mains. 2500mAH LiPo battery in device

Analytical spectrum range: Configuration dependant - 800-4000cm⁻¹

Internal battery capability typical runtime: 250 sample measurements between charge

Compliance: Correlates to ASTM / DIN

Cuvettes : 2x Cuvettes (flow-cells) with 100 and 250µm pathlength.

Consumables: Syringes for oil dispense (5ml)

Sample volume: 2-3ml

Repeatability: <+-5% of measured value

Accuracy: <+-5% of measured value

Methodology Default: DIN 51453/51451 - can be calibrated to ASTM/DIN

Measurement range: Configuration Dependent:

- 0-100 abs/cm for Oxidation, Nitration, Sulphation, Anti-wear, soot, glycol
- 0-100% Phenol Anti-Oxidant
- 0-100 mgKOH/g for TAN, TBN.
- ipH and Viscosity dependent on application
- 0-100,000 ppm water (depends on application)
- Can be configured for other additives upon request

