

## FluidScan Handheld Lubricant Condition Monitor (Yellow)

La tecnologia FTIR si rinnova, passando allo stato solido, e permettendo di impostare adeguati programmi di “conditions’ monitoring” direttamente in campo.

Uno strumento compatto e versatile per acquisire in tempo reale le principali informazioni sullo stato di salute dei fluidi lubrificanti in esercizio, per decidere se e quando sostituire l’olio a seconda del suo effettivo degrado.

Tale rivoluzionaria tecnologia permette di valutare il grado di ossidazione, analizzando il trend del TAN o TBN, individuando se il prodotto in uso è davvero quello adatto allo scopo.

Accade sovente che determinate cariche di olio vengano contaminate accidentalmente da acqua od altri fluidi (o prodotti lubrificanti non compatibili). Con Fluidscan è possibile individuare tali errori con ampio margine operativo.



### FluidScan Capabilities

The FluidScan is capable of analyzing oil samples by several methods. Similar to FT-IR spectrometers, the FluidScan will analyze in-service oils using the direct or subtractive methods as described in ASTM International Standard Practice E 2412. The direct method uses no references and merely trends results over time or distance traveled. Variations in results are then indicative of changing physical properties or contamination. The subtractive

method requires that clean oil identical to the in-service oil must be analyzed, or a previous analysis of it must be stored in the database. The spectrum from the clean oil is then subtracted from the analysis of the in-service oil and the results are the differences between the two.

The FluidScan, however, has an additional capability to analyze samples and to provide the user with quantitative results using the “Spectral Matching” capability. This is possible because the FluidScan has stored in its memory algorithms for many of the world’s most common lubricant types. These algorithms provide a calibration for most lubricant types so that analytical results are given in physical units as follows:

- TAN (mg of KOH per g)
- TBN (mg of HCL per g)
- Oxidation
- Nitration
- Sulfation
- Water (parts per million)
- Glycol (percent by weight)
- Soot (percent by weight)
- Incorrect Fluid (per cent by weight)
- Antioxidant Depletion (percent)
- Antiwear Depletion (per cent by weight)

### FluidScan Specifications

Item	Specification
<b>Repeatability:</b>	< 3% relative standard deviation within mid-range of measured parameters.
<b>Reproducibility:</b>	< 6% of measured parameters within mid-range of parameters
<b>Meniscus Detection:</b>	Optical (new and used oils)
<b>Measurement Time :</b>	60 seconds, 30 samples per hour including data entry
<b>Calibration:</b>	Not required
<b>Oil Types:</b>	Applicable to commercial and military synthetic or petroleum based fluids.
<b>Sample Volume:</b>	1-2 drops of oil
<b>Consumables:</b>	None
<b>Operating Temperature Range:</b>	-10°C to 50°C
<b>Operating Humidity:</b>	0 to 100%, non condensing
<b>Maximum Operating Altitude:</b>	5,000 meters (16,400 feet)
<b>Battery Life:</b>	6 to 8 hours after a full charge, automatic shut-off to conserve battery
<b>Weight:</b>	1.8 kg (4 lbs)
<b>Dimensions:</b>	17 x 14 x 9 cm (6.5 x 5.5 x 3.5 inches)
<b>Operating System:</b>	Windows® CE
<b>Display:</b>	320 x 320 pixel transfective color screen.
<b>Alarms:</b>	Pass/fail based on limits for each measured parameter.
<b>Flash Memory:</b>	64 MB
<b>Random Access Memory:</b>	64 MB
<b>Data Logging:</b>	Up to 5,000 samples
<b>Synchronization:</b>	To SQL database
<b>Power Requirements:</b>	Rechargeable battery or 100/220 V, 50/60 Hz with charger