

# Biodiesel FAME% Portable Analyser

## Summary Information:

- ATR Mid Infrared Spectroscopy
- Correlates with ASTM D7371
- Calibrated with Certified Biodiesel Blends
- Detectable range of 0 to 100% FAME (B0-B100)
  - <0.5%v/v average offset across full B0-B100 range
- Portable and battery operated
- 500 measurements without recharging

## Product Description:

The FAME% Analyser uses ATR Spectroscopy, based on the ASTM D7371 standard, to extract the FAME % parameter from a biodiesel sample. The Analyser is basically maintenance free being exclusively constructed from solid state dispersion elements, a black body infrared emitter and infrared sensor element. It is very robust with an outstanding battery lifetime. The Analyser comes with a sophisticated but user-friendly software which is run from an in-situ tablet.

## Application:

With many countries having mandatory regulation on FAME (Fatty-Acid-Methyl-Ester) content in biodiesel, it is very important to have a reliable measurement device that can be used in the Laboratory and more critically in the Field at distribution terminals and quality control points. The analyser comes complete with multiple calibration files depending on the region of use. For example in the Indo-Asia market we supply calibration files for general screening of B0 (0% FAME) to B100 (100% FAME) samples and also for targeting specific FAME ranges (B0-B30). In the European markets we have a calibration file suited for 7% upper limit of FAME content in biodiesel.

## How to use:

The biodiesel sample is placed on the ATR crystal which forms part of the spectrometer. This is done easily with a pipette of approximately 0.5-0.75ml. The measurement is started from the software. After about 30s the FAME% of the sample will be displayed. The user can add traffic light specification (green/yellow/red) limits to aid the interpretation of the results.



## Specification:

- Mid-infrared ATR Spectrometer
  - 1800-900cm<sup>-1</sup>
  - Spectral Resolution 36-18cm<sup>-1</sup>
- Size: 39cm(W)\*31cm(L)\*17cm(D)
- Weight: 8kg
- Windows 10 Operating System

## Special Features :

- Simultaneous system charging and measurement feature.
- Fixed internal batteries – no need for exchanging.
- Long battery charge life
- Fold-away Bluetooth keyboard and integrated touchpad.
- Microsoft Surface tablet (touchscreen)
- 2 USB Ports and RJ-45 ethernet connection for external access to ATR.
- Large compartment for wipes and pipettes and storage of fold-away keyboard