

# era**jet fame**

# FAME IN JET FUEL TESTING: FAST, PRECISE, PORTABLE

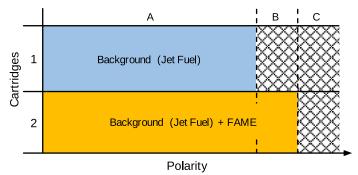


# era**jet fame**economical high speed fame in jet fuel testing

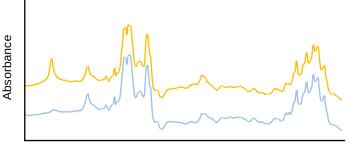
# Measuring Principle

erajet fame is a portable, stand-alone FAME in jet fuel analyzer using a unique newly developed measuring principle (patent pending).

First, the test specimen is passed through a cartridge which allows the introduction of only non-polar components into the analyzer. The second cartridge selectively absorbs the more polar contaminants, such as oxidation products, and FAME or other esters are passed through without retention.



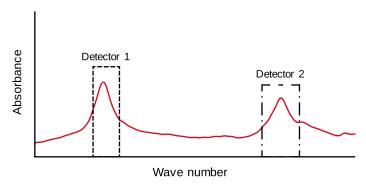
By applying spectral subtraction, the resulting intensities are used for highly accurate FAME determination.



### Wave number

## FIC - FAME Interference Check<sup>TM</sup>

The IR absorption is measured with two independent detectors, each featuring individual optical filters for different wave lengths.



Both observed wavelength ranges and corresponding intensities, are associated with the measured concentration of FAME in the sample, and the result is reported as "FAME in Jet Fuel".

era**jet fame** applies the unique FAME Interference Check  $(FIC^{TM})$  by evaluating the intensity ratio of both detectors. For other contaminants, such as plasticizers or other esters, this ratio will be different compared to FAME, and in this case the result is marked as "Total Esters in Jet Fuel".

This superior IR measurement technique makes erajet fame the most efficient FAME in Jet Fuel analyzer on the market.

# Maximum Reliability

During jet fuel transportation there is a risk of FAME contamination resulting from poor pipeline cleaning or from a previous fuel transportation process. **era**lytics latest innovation era**jet fame** is a fully automated and compact stand-alone NDIR spectrometer for ultra fast and easy determination of all types of FAME in jet fuel. With a repeatability of only  $r \le 4$  mg/kg and a reproducibility of  $R \le 6$  mg/kg era**jet fame** measures with lab-grade precision over a wide measurement range of 10 to 250 mg/kg (ppm) for AVTUR in excellent correlation to international IR (D7797, IP 583) as well as GC (IP 585, IP 590, IP 599) standards.

# Ultra Fast and Fully Automated

With an unrivalled measurement time of only 5 min erajet fame is the fastest available FAME in jet fuel analyzer on the market. With its easy to use interface and the fully automated mesurement including the sample introduction erajet fame is the perfect and most economical solution even for untrained operators. Cleaning and rinsing of the instrument are an easy task as no special solvent is required. In the case of persistent residues inside the measuring system the analyzer can easily be cleaned and maintained on-site.

# Maximum Connectivity

era**jet fame** is equipped with an industry proven 8.4" multilingual high-contrast color touchscreen and a built-in industrial PC. State-of-the-art connectivity options like LAN, 5 x USB and RS232 allow you to attach printers, keyboards and bar code scanners or to connect the instrument to any Laboratory Information Management System (LIMS).



# **Applications**

The ultra-light, portable and rugged metal housing with its small footprint makes erajet fame equally suited for lab applications and field use. In particular its low weight makes it perfect for a straightforward on-site use even on remote locations with limited access to technical infrastructure. Each measurement offers lab-grade results at any time.

erajet fame is mainly used at:

- Airports
- Terminals
- · Military facilities
- · Governmental bodies

# Features at a Glance:

- Rugged and lightweight NDIR Spectrometer
- Speed: 5 min measurement time
- Range: 10 to 250 mg/kg (ppm) for AVTUR
- · Precision: Lab-grade results directly on-site
- Automatic sample introduction
- Detection of all types of FAME

# Technical Specifications of erajet fame

Correlation to  Infrared spectroscopy: ASTM D7797, IP583 Gas chromatography: IP 585, IP590, IP599  Fuel Specification  ASTM D1655  FIC™  FAME Interference Check (patent pending) to exclude false positive FAME results  Cartridge Set  Distinction between FAME and other esters (plasticizers) even at very low concentrations  Sample Volume  35 mL  Measurement Time  5 min  Measurement Range  10 - 250 mg/kg for AVTUR  Method detection limit (MDL)  10 mg/kg  Precision  Repeatability: r ≤ 4 mg/kg Reproducibility: R ≤ 6 mg/kg  Automatic sample introduction  Sampling directly from sample bottle  Interfaces  Built-in PC with Ethernet, front and rear USB and RS232 interfaces; Wiff via USB dongle Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF Optional input by keyboard, mouse and barcode reader  Display  Industry proven 8.4" multilingual color touchscreen  Remote Control  Remote service capability via Ethernet interface  PC Software  erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis  Result Database  Over 100 000 detailed test reports stored in internal memory  Alam Tracking  All alarm messages are stored in the database together with the result  Power Requirements  Auto-switching 85 – 284 V AC, 47 – 63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Available Test Method	Rugged NDIR Spectrometer – no moving parts
FIC™  FAME Interference Check (patent pending) to exclude false positive FAME results  Cartridge Set  Distinction between FAME and other esters (plasticizers) even at very low concentrations  Sample Volume  35 mL  Measurement Time  5 min  Measurement Range  10 - 250 mg/kg for AVTUR  Method detection limit (MDL)  10 mg/kg  Precision  Repeatability: r ≤ 4 mg/kg Reproducibility: R ≤ 6 mg/kg  Automatic sample introduction  Sampling directly from sample bottle  Interfaces  Built-in PC with Ethernet, front and rear USB and RS232 interfaces; Wifi via USB dongle Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF Optional input by keyboard, mouse and barcode reader  Display  Industry proven 8.4" multilingual color touchscreen  Remote Control  Remote service capability via Ethernet interface  PC Software  erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis  Result Database  Over 100 000 detailed test reports stored in internal memory  All alarm messages are stored in the database together with the result  Power Requirements  Auto-switching 85–264 V AC, 47–63 Hz, max, 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Correlation to	
Cartridge Set       Distinction between FAME and other esters (plasticizers) even at very low concentrations         Sample Volume       35 mL         Measurement Time       5 min         Measurement Range       10 - 250 mg/kg for AVTUR         Method detection limit (MDL)       10 mg/kg         Precision       Repeatability: r ≤ 4 mg/kg Reproducibility: R ≤ 6 mg/kg         Automatic sample introduction       Sampling directly from sample bottle         Interfaces       Built-in PC with Ethernet, front and rear USB and RS232 interfaces; Wifl via USB dongle Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF Optional input by keyboard, mouse and barcode reader         Display       Industry proven 8.4" multilingual color touchscreen         Remote Control       Remote service capability via Ethernet interface         PC Software       erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis         Result Database       Over 100 000 detailed test reports stored in internal memory         Alarm Tracking       All alarm messages are stored in the database together with the result         Power Requirements       Auto-switching 85–264 V AC, 47–63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Fuel Specification	ASTM D1655
Sample Volume       35 mL         Measurement Time       5 min         Method detection limit (MDL)       10 mg/kg         Precision       Repeatability: r ≤ 4 mg/kg Reproducibility: R ≤ 6 mg/kg         Automatic sample introduction       Sampling directly from sample bottle         Interfaces       Built-in PC with Ethernet, front and rear USB and RS232 interfaces; Wifi via USB dongle Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF Optional input by keyboard, mouse and barcode reader         Display       Industry proven 8.4" multilingual color touchscreen         Remote Control       Remote service capability via Ethernet interface         PC Software       erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis         Result Database       Over 100 000 detailed test reports stored in internal memory         Alarm Tracking       All alarm messages are stored in the database together with the result         Power Requirements       Auto-switching 85–264 V AC, 47–63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	FICTM	FAME Interference Check (patent pending) to exclude false positive FAME results
Measurement Time       5 min         Measurement Range       10 - 250 mg/kg for AVTUR         Method detection limit (MDL)       10 mg/kg         Precision       Repeatability: r ≤ 4 mg/kg Reproducibility: R ≤ 6 mg/kg         Automatic sample introduction       Sampling directly from sample bottle         Interfaces       Built-in PC with Ethernet, front and rear USB and RS232 interfaces; Wifl via USB dongle Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF Optional input by keyboard, mouse and barcode reader         Display       Industry proven 8.4" multilingual color touchscreen         Remote Control       Remote service capability via Ethernet interface         PC Software       erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis         Result Database       Over 100 000 detailed test reports stored in internal memory         Alarm Tracking       All alarm messages are stored in the database together with the result         Power Requirements       Auto-switching 85–264 V AC, 47–63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Cartridge Set	Distinction between FAME and other esters (plasticizers) even at very low concentrations
Measurement Range       10 - 250 mg/kg for AVTUR         Method detection limit (MDL)       10 mg/kg         Precision       Repeatability: r ≤ 4 mg/kg Reproducibility: R ≤ 6 mg/kg         Automatic sample introduction       Sampling directly from sample bottle         Interfaces       Built-in PC with Ethernet, front and rear USB and RS232 interfaces; Wifi via USB dongle Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF Optional input by keyboard, mouse and barcode reader         Display       Industry proven 8.4" multilingual color touchscreen         Remote Control       Remote service capability via Ethernet interface         PC Software       erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis         Result Database       Over 100 000 detailed test reports stored in internal memory         Alarm Tracking       All alarm messages are stored in the database together with the result         Power Requirements       Auto-switching 85 – 264 V AC, 47 – 63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Sample Volume	35 mL
Method detection limit (MDL)       10 mg/kg         Precision       Repeatability: r ≤ 4 mg/kg         Reproducibility: R ≤ 6 mg/kg         Automatic sample introduction       Sampling directly from sample bottle         Interfaces       Built-in PC with Ethernet, front and rear USB and RS232 interfaces; Wifi via USB dongle Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF Optional input by keyboard, mouse and barcode reader         Display       Industry proven 8.4" multilingual color touchscreen         Remote Control       Remote service capability via Ethernet interface         PC Software       erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis         Result Database       Over 100 000 detailed test reports stored in internal memory         Alarm Tracking       All alarm messages are stored in the database together with the result         Power Requirements       Auto-switching 85–264 V AC, 47–63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Measurement Time	5 min
Precision       Repeatability: r ≤ 4 mg/kg         Reproducibility: R ≤ 6 mg/kg         Automatic sample introduction       Sampling directly from sample bottle         Interfaces       Built-in PC with Ethernet, front and rear USB and RS232 interfaces; Wifi via USB dongle Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF Optional input by keyboard, mouse and barcode reader         Display       Industry proven 8.4" multilingual color touchscreen         Remote Control       Remote service capability via Ethernet interface         PC Software       erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis         Result Database       Over 100 000 detailed test reports stored in internal memory         Alarm Tracking       All alarm messages are stored in the database together with the result         Power Requirements       Auto-switching 85–264 V AC, 47–63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Measurement Range	10 - 250 mg/kg for AVTUR
Precision       Reproducibility: R ≤ 6 mg/kg         Automatic sample introduction       Sampling directly from sample bottle         Interfaces       Built-in PC with Ethernet, front and rear USB and RS232 interfaces; Wifi via USB dongle Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF Optional input by keyboard, mouse and barcode reader         Display       Industry proven 8.4" multilingual color touchscreen         Remote Control       Remote service capability via Ethernet interface         PC Software       erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis         Result Database       Over 100 000 detailed test reports stored in internal memory         Alarm Tracking       All alarm messages are stored in the database together with the result         Power Requirements       Auto-switching 85 – 264 V AC, 47 – 63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Method detection limit (MDL)	10 mg/kg
Built-in PC with Ethernet, front and rear USB and RS232 interfaces; Wifi via USB dongle Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF Optional input by keyboard, mouse and barcode reader  Display Industry proven 8.4" multilingual color touchscreen  Remote Control Remote service capability via Ethernet interface  PC Software erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis  Result Database Over 100 000 detailed test reports stored in internal memory  Alarm Tracking All alarm messages are stored in the database together with the result  Power Requirements Auto-switching 85–264 V AC, 47–63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Precision	
Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF Optional input by keyboard, mouse and barcode reader  Display  Industry proven 8.4" multilingual color touchscreen  Remote Control  Remote service capability via Ethernet interface  PC Software  erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis  Result Database  Over 100 000 detailed test reports stored in internal memory  Alarm Tracking  All alarm messages are stored in the database together with the result  Power Requirements  Auto-switching 85–264 V AC, 47–63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Automatic sample introduction	Sampling directly from sample bottle
Remote Control  Remote service capability via Ethernet interface  PC Software  erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis  Result Database  Over 100 000 detailed test reports stored in internal memory  Alarm Tracking  All alarm messages are stored in the database together with the result  Power Requirements  Auto-switching 85–264 V AC, 47–63 Hz, max. 150 W (multi-voltage power supply)  Field application: 12 V DC (vehicle battery) adapter available	Interfaces	Direct LIMS connectivity via LAN, output to printer or PC and export as CSV or PDF
PC Software erasoft RCS – remote control Windows® software for multi-instrument remote control, convenient data transfer and result analysis  Result Database Over 100 000 detailed test reports stored in internal memory  Alarm Tracking All alarm messages are stored in the database together with the result  Power Requirements Auto-switching 85–264 V AC, 47–63 Hz, max. 150 W (multi-voltage power supply)  Field application: 12 V DC (vehicle battery) adapter available	Display	Industry proven 8.4" multilingual color touchscreen
Result Database Over 100 000 detailed test reports stored in internal memory  Alarm Tracking All alarm messages are stored in the database together with the result  Power Requirements Auto-switching 85–264 V AC, 47–63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Remote Control	Remote service capability via Ethernet interface
Alarm Tracking  All alarm messages are stored in the database together with the result  Auto-switching 85 – 264 V AC, 47 – 63 Hz, max. 150 W (multi-voltage power supply)  Field application: 12 V DC (vehicle battery) adapter available	PC Software	
Power Requirements  Auto-switching 85–264 V AC, 47–63 Hz, max. 150 W (multi-voltage power supply) Field application: 12 V DC (vehicle battery) adapter available	Result Database	Over 100 000 detailed test reports stored in internal memory
Field application: 12 V DC (vehicle battery) adapter available	Alarm Tracking	All alarm messages are stored in the database together with the result
Dimensions / Weight (W x D x H) 31.8 x 32.9 x 34.8 cm (12.5 x 12.9 x 13.7 in) / 10.5 kg (23.1 lb)	Power Requirements	
	Dimensions / Weight (W x D x H)	31.8 x 32.9 x 34.8 cm (12.5 x 12.9 x 13.7 in) / 10.5 kg (23.1 lb)

Due to continuing product development, specifications are subject to change.

All eralytics products are manufactured under ISO 9001 regulations and are CE, ROHS and UL/CSA compliant. www.eralytics.com/erajet-fame



**era**lytics instruments are available worldwide. An international network of over 50 authorized and well-trained distributors is ready to answer your inquiries and to offer local support and service. **www.eralytics.com/distribution** 

# eralytics a

Autokaderstrasse 29, Building 4A 1210 Vienna, Austria Phone: +43 1 890 50 33 0 office@eralytics.com www.eralytics.com