

# KF875, KF-UNI and KF-LAB

## Karl Fischer Moisture in Oil Test Sets



- **Coulometric Karl Fischer titrimetry**
- **KF875 optimized for insulating oil and tests to 0.875, completely portable**
- **KF-UNI offers greater flexibility, versatility and sample data input than the KF875; also completely portable**
- **KF-LAB analyzes materials with an SG between 0.6 & 1.4, plus insulating oils with an SG of 0.875**
- **Suitable for use with any Coulometric Karl Fischer reagent**

### DESCRIPTION

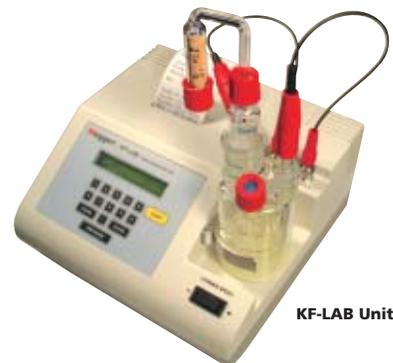
Over 20 years experience has led to the development of the Megger KF875, KF-UNI and KF-LAB Coulometric Karl Fischer Test Sets designed to determine moisture in oil, to provide highly accurate results on-site. The KF875 and KF-UNI are highly portable instruments, complete with integral printer and carrying case, are easy to use and provide highly accurate results. The KF-LAB unit is designed specifically for lab use is mains powered only and does not include a built-in battery or carrying case.

### APPLICATION

Optimized for testing insulating oils with a specific gravity of 0.875, the Megger KF875 simply requires the operator to press one button and inject a 1ml sample into the test cell. The simple 'one touch' operation makes the KF875 so easy to use that it requires no specialist knowledge or training to use it effectively. Results are presented on the instrument display and on the integral printer in both micrograms of water and in milligrams per kilogram (parts per million, ppm).

The KF-UNI allows the titration of samples with a range of specific gravities from 0.60 to 1.40 and also permits the use of different sample sizes. The printer may be disabled

if not required and results can be calculated in ppm, mg/kg, % and micrograms. For extra flexibility, the results may be calculated based on the weight of the sample or based on the volume and specific gravity of the sample.



The KF-LAB analyzes materials with an SG between 0.6 and 1.4, but also has a default setting optimized for analyzing insulating oils with an SG of 0.875. This means it can be used to measure water content in a variety of different materials but is also easy to set up for transformer insulating oils.

	<b>KF LAB</b>	<b>KF UNI</b>	<b>KF 875</b>
Titration method	Coulometric Karl Fischer Titration		
Electrolysis control	Patented "ACE" control system		
End point detection	AC polarisation		
End point indication	Visual display / print out / acoustic beep		
Measuring range	1 µg – 10 mg water		
Moisture range	1 ppm – 100 %		1 ppm – 100 ppm
Max. sensitivity	0.1 µg		
Max. titration speed	2 mg per minute		
Max. current	400 ma		
Drift compensation	Automatically controlled		
Precision	10-100µg ± 3µg, 100µg - 1 mg ± 5µg, above 1 mg ± 0.5%		
Method storage	10 programmable methods	Single method	Preset method
Sample ID number	User programmable	Not available	
Display format	µg, mg/kg, ppm, %		mg/kg, ppm
Print format	µg + mg/kg, ppm, %		µg + mg/kg, ppm
Calculation modes	Weight/weight Weight/dilution ratio Volume/volume Volume/density User programmable	Weight/weight User programmable Volume/density User selectable	Volume/density Preset values
Statistics	Upto 99 runs User programmable	Preset up to 99 runs	
Start delay time	0-30 mins. selectable	0-20 mins. selectable	Preset
Min. titration time	0-30 mins. selectable	Not available	
Language	English, Francais, Espanol, Portugues, Deutsch, Magyar	English	
Stirrer speed	Microprocessor controlled		
Calendar / clock	Analysis time & date print out		
Keypad/User controls	Non tactile membrane/display prompted menu		
Display	40 character alphanumeric backlit display		
Printer	42 character high speed thermal printer		
Carry case	Optional	Standard	
Power supply	90-264VAC, 47-63Hz	90-264VAC, 47-63Hz 12V DC car adapter/internal battery	
Battery life	Not available	8 hours running time	
Battery low	Not available	Display & print out indication	
Dimensions	250 x 245 x 120 mm		
Weight	3 kg (without carry case)		

### FEATURES AND BENEFITS

- **The KF875 and KF-UNI are highly portable and designed specifically for outdoor use** - both units are supplied as standard with a printer, low drift cell and rugged carry case. Portability is further enhanced with flexible power options - both units can be powered from the mains supply, from the internal rechargeable battery or via a 12V car adapter.
- **Each unit eliminates inaccuracies with ACE Control System** - some Coulometric Karl Fischer sets are susceptible to inaccuracies due to changes in electrolysis cell resistance, which requires frequent checking of the titrator efficiency by analyzing known water content standards. The KF875, KF-UNI and the KF-LAB remove this need by using the patent pending ACE (Automatically Compensated Errors) Control System. This guarantees that the electrolysis current produced and the count rate displayed are always correctly synchronized, regardless of changes to the electrolysis cell resistance thus eliminating the need to calibrate the reagent. This further adds to the instruments' remarkable user-friendliness and ease of use.
- **Each unit uses Karl Fischer coulometric titrimetry** - the industry standard method for determining moisture content (ASTM D1533, BS EN 60814:1998, IEC 60814:1997).
- **The KF875 and the KF-UNI include a rechargeable battery power** - allows accurate on-site measurements to be made on oil samples freshly obtained, eliminating any time deterioration of the oil sample.
- **The KF875 and the KF-UNI may be powered by internal rechargeable batteries or from the supply** - allows field-testing and laboratory testing with the same equipment, providing standardization.

### ORDERING INFORMATION

Item (Qty)	Cat. No.
KF875 Coulometric Karl Fischer Test Set for insulating oils	KF875 [6111-636]
KF-UNI Coulometric Karl Fischer Test Set for liquids	KF-UNI [6111-637]
KF-LAB Laboratory Coulometric Karl Fischer Test Set	KF-LAB [6111-638]
<b>Supplied Accessories (also available as spare items) for the KF875 and KF-UNI ONLY</b>	
Titration Vessel	6121-527
Detector electrode	6121-528
Generator electrode	6121-529
Drying tube	6121-530
Carrying Case	6121-537
Power Pack	6121-538
Car adapter	6121-539
<b>Supplied Accessories (also available as spare items) for the KF875, KF-UNI and KF-LAB</b>	
Injection septa (10)	6121-531
Glass syringe (1 ml)	6121-532
Luer needle	6121-533
Bottle of Molecular sieve	6121-534
Stirrer bar	6121-535
Funnel	6121-536
<b>Supplied Accessories (also available as spare items) for the KF-LAB ONLY</b>	
Complete Glassware pack (single port)	EV6121-587
Titration vessel (single port)	EV6121-571
Detector electrode	EV6121-572
Generator electrode	EV6121-573
Drying tube	EV6121-574
Teflon sleeves (pack 5 each)	EV6121-575
Instruction manual	EV6172-878

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