

# aquamax KF Online

## Online water determination in petroleum products

### Product description

The gas extraction is the ideal method to detect moisture in oil samples and viscous substances.

Trace amounts of water can be measured with the special heating chamber for oils. The sample has no contact with the reagent. Therefore the consumption of reagent is low and the detection sensitivity is high.

The oil sample is transferred automatically from sampling point of running process by using the pump module. The sample is injected into heating oven without any contamination. Oil sample volumes can be used in a range from 0.01 up to 20mL depending on water content.

The sample can be heated out with temperature program or isothermal heating. The measurement is carried out in the measuring cell with titration method according to Karl Fischer. After analysis, the used oil sample flows out through a valve or returns to the running process.

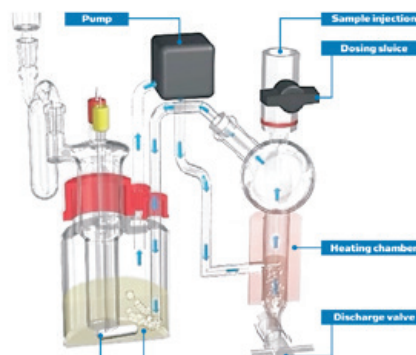
With closed-loop carrier gas circulation, any additional gas drying is no longer necessary: the carrier gas is continually titrated to dryness within the closed loop. The total dryness of the gas enhances the moisture desorption from the sample. Moreover, sensitive samples can be heated out very gently. Degradations and side reactions are eliminated.

### Advantages

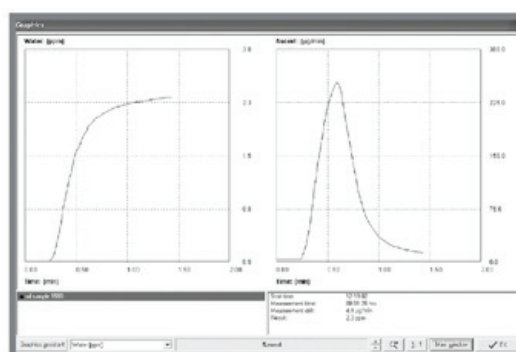
- Closed-loop carrier gas circulation
- No contact of sample with the reagent
- Low consumption of reagent
- Water determination down to 0.1 ppm
- Absolute measurement without calibration or titer determination
- No sample preparation
- For sample amounts from 0.01 up to 20 mL
- Short measuring time
- No blank value, low drift
- Freely selectable heating temperature
- Return of oil sample into system possible
- Applicable for monitoring over long period



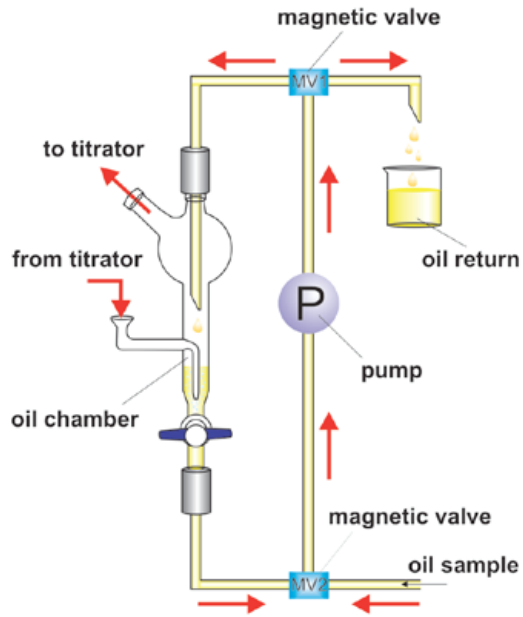
AQUA 40.00 - Oil Online Module



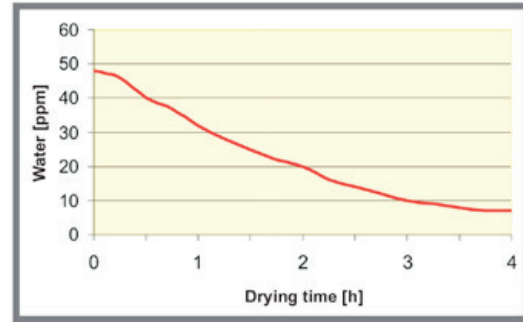
Closed-loop carrier gas circulation



Measurement of mineral oil



Principle of automatic sampling and circulation



Drying process of oil treatment plant

## Applications

- Transformer oil regeneration
- Oil treatment plant
- Refineries
- Pipelines
- Crude petroleum monitoring

## Details

The sample ways are coupled directly with monitoring process. Thereby the oil sample is transferred into the oil module without any contamination. The sample transfer can be adjusted to an automatic procedure. The control system is adjustable for various parameters:

- Delivery rate of dosing pump
- Rinsing steps
- Emptying of oil chamber

## Specifications

Sample administration: Automatically with high resolving ceramic dosing pump

Sample amount: 0.01 ... 20 mL

Heating temperature: 35 ... 250 °C

Measuring range: > 0.1 ppm

Type of result: µg, µg/L, mg/L, mg/kg, ppm, %, by using the formula generator

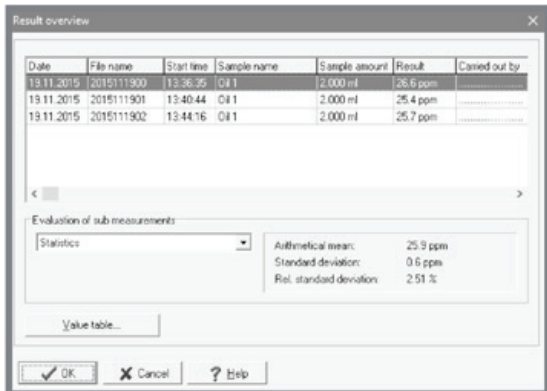
Power supply: 230 V/50 Hz; 115 V/60 Hz

Dimensions: Approx. 380 x 450 x 200 mm (W x H x D)

Weight: Approx. 25 kg (complete device)



Preparation of measurement procedure



Result overview

### ECH Elektrochemie Halle GmbH

Otto-Eissfeldt-Str. 8  
D-06120 Halle (Saale)  
Germany

Tel: +49 345 279570-0  
Fax: +49 345 279570-99

Email: [info@echscientific.com](mailto:info@echscientific.com) • [www.ech.de](http://www.ech.de) • [www.aquamaxkf.com](http://www.aquamaxkf.com)

### ECH Scientific Limited

Building 69, Wrest Park, Silsoe  
Bedfordshire, MK45 4HS  
United Kingdom

Tel: +44 (0) 1525 404747  
Fax: +44 (0) 1525 404848

# aquamax KF

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**experts in analysis**

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