

Acid Number Titrator

for the determination of acidity in mineral oils, fats and lubricants

Product description

The acid number titrator is designed for the determination of free fatty acids in oils and fats. Its operating mode complies with IEC 62021-1:2003 and ASTM D664-95 standards for mineral oils. The acid number (or "neutralization number") is used as an expression for the freshness of fats, e.g. in the food industry.

For the measurement of free fatty acids, a volumetric titration method with potassium hydroxide is used.

Once the oil sample was solved in the reagent, the titration with KOH is started. Then the sample weight is entered manually into the software. Besides, the titration speed is precisely adapted with regards to the slow reaction rate. Our special software controls this titration process reliably.

The titration is performed automatically to the endpoint of measurement. At the end of the measurement, results are calculated in mg KOH/g oil, or any other result units if desired.

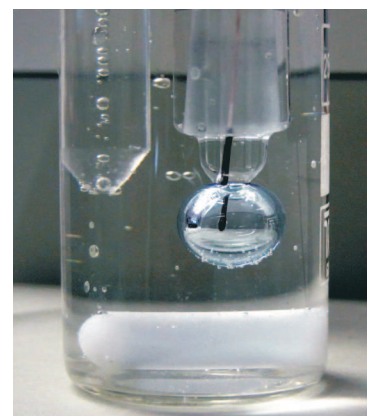


Acid number titrator

Applications

The acid number of oils and fats is an indication of their age and quality. The device is suitable for analysis of

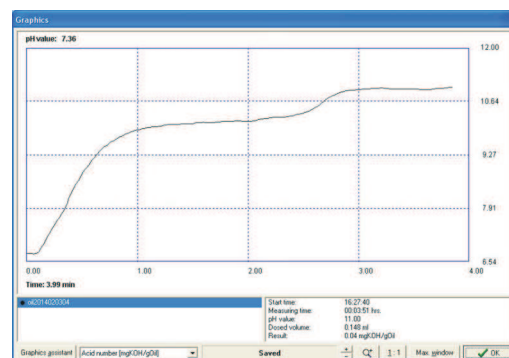
- transformer oils
- natural and artificial fats
- mineral oil products
- lubricants
- food fats (e.g. olive oil, butter)



Titration tip and pH-electrode in the sample solution

Advantages

- Complete measuring system for the determination of TAN (Total Acid Number)
- Fully-automatic volumetric titration
- Special software for precise control of the titration parameters, e.g. adaptation to slow reaction rate
- Preset measurement method allows an immediate start
- The result output can be adjusted to your needs by using a formula generator



Titration curve of an oil sample

Details

The acid number titrator consists of

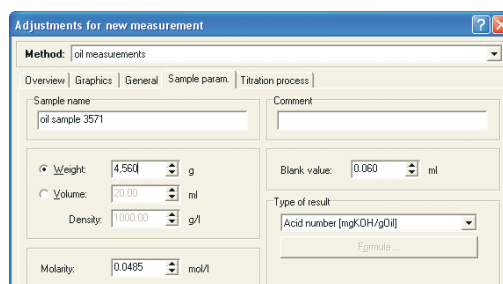
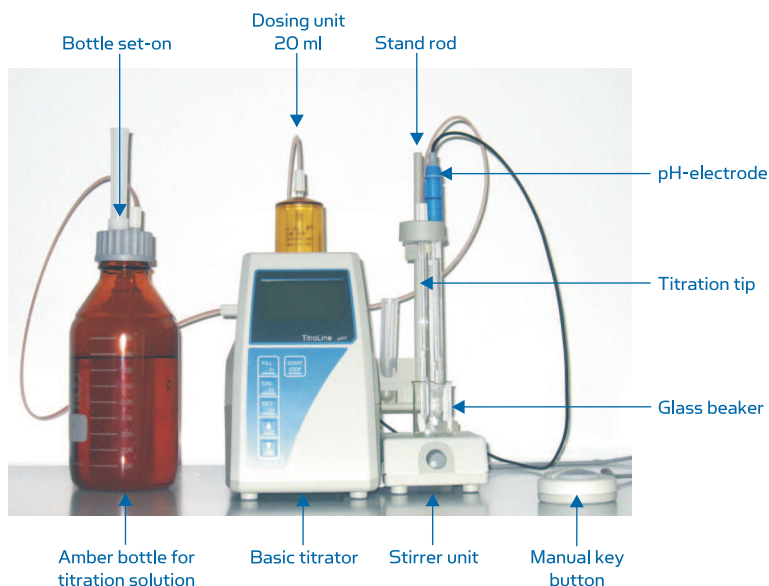
- an automatic volumetric titrator with potentiometric pH-indication
- a titration vessel with stirrer unit
- a control software to record, process and archive measured data on Microsoft Windows XP/Vista/7/8

The determination is based on

- an acid-base-titration in an anhydrous solvent
- a precise indication by an electrode filled with anhydrous ethanol

Steps of the analysis are

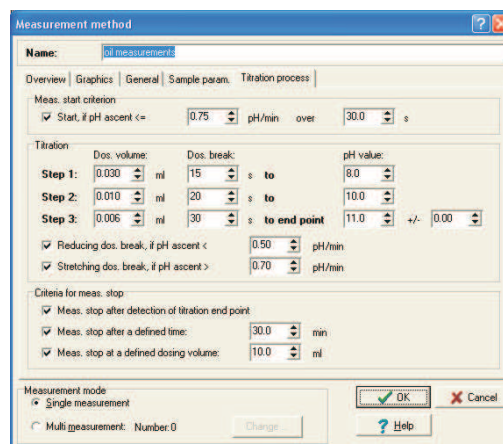
1. Calibration of the electrode
2. Determination of the blank value
3. Standardization of the titration solution
4. Titration of oil samples



Setting of parameters for the measurement of an oil sample

Specifications

Measurement method:	volumetric titration
Type of result:	mg KOH/g oil or using the formula generator
Measuring range:	0.01 ... 250 mg KOH/g oil
Resolution:	0.01 mg KOH/g oil
Power supply:	230 V, 60 Hz
Input:	0.8 kW
Dimensions:	26 x 16 x 27 cm (W x H x D)
Weight:	6 kg



Setting of measurement mode

We are here for you



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Oil sample