

TAN/TBN Titrator

Determination of total acid or base number of oils and fats

Product description

The TAN/TBN Titrator is suitable for determination of Total Acid Number (TAN) or Total Base Number (TBN) of oils and fats. The acid number expresses the quantity of base required to neutralize all acidic constituents of the sample. It is a quality feature for freshness of oils and fats. The base number indicates the quantity of acid which can be neutralized by additives in mineral oils.

The device is conform to standards **IEC 62021-1, ISO 3771, ASTM D 664, ASTM D 2896, ASTM D 4739**. The measurement uses a potentiometric titration method in an anhydrous medium. The titration with titrant starts, once the oil sample is dosed into the reagent. The user has to enter the sample weight into the menu. The titration speed is precisely adjusted to the reaction rate by control algorithms.

The titration is performed automatically until the endpoint indication of measurement. At the end of the measurement, results are shown in mg KOH/g oil or several other units.

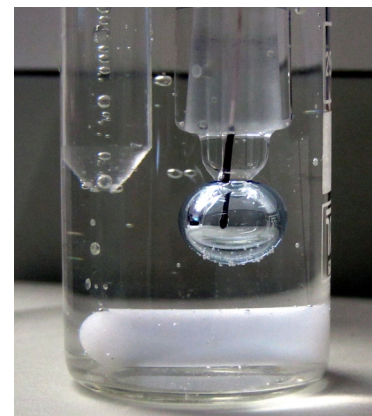


TAN/TBN Titrator

Applications

The value of TAN/TBN is an indication of age and quality of oils and fats. The device is suitable for analysis of

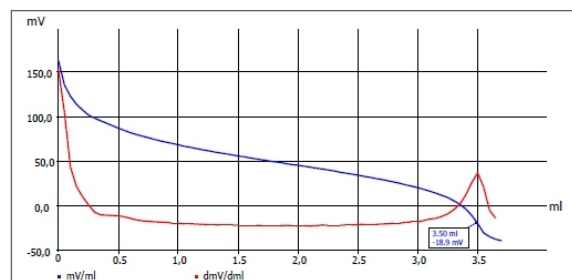
- transformer oils
- natural and artificial fats
- mineral oil products
- lubricants
- food fats (e. g. olive oil, butter)



Titration tip and pH-electrode in sample solution

Advantages

- Complete measuring system for the determination of TAN/TBN
- Fully-automatic volumetric titration
- Precise adjustment of the titration parameters by control algorithms
- Preset measurement method allows an immediate start
- The result output can be adjusted to your needs by using a formula generator



Titration graph of oil sample

Details

The TAN/TBN Titrator consists of

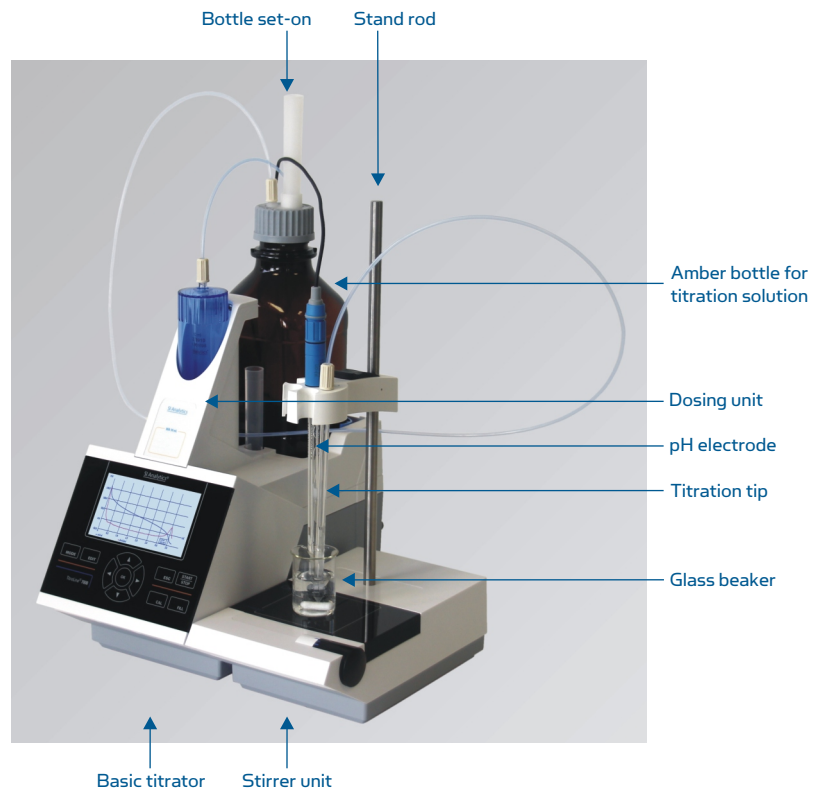
- an automatic volumetric titrator with potentiometric pH indication and integrated temperature sensor
- a titration vessel with stirrer unit

The determination of TAN/TBN value is based on

- an acid-base-titration in an anhydrous medium
- a precise indication by an electrode filled with anhydrous ethanol/LiCl

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



Specifications

Measurement method:	Volumetric titration
Types of result:	mg KOH/g oil or using the formula generator
Measuring range:	0.01 ... 250 mg KOH/g oil
Resolution of the display:	0.01 mg KOH/g oil
Power supply:	External plug-in power supply 100 - 240 V, 50/60 Hz
Power input:	30 VA
Stirrer connection:	12 V DC out, 500 mA
Dimensions:	30 x 45 x 30 cm (W x H x D), height with exchange unit
Weight:	Approx. 3.5 kg (with exchange unit and empty reagent bottle)

We are here for you



ECH Elektrochemie Halle GmbH
Otto-Eissfeldt-Str. 8
D-06120 Halle (Saale)
Germany
Tel.: +49 345 279570-0
Fax: +49 345 279570-99
E-mail: info@ech.de
Website: www.ech.de