

titramax VT

ACID/BASE

Determination of acids, bases and other ions in water

Product description

The **Titramax VT ACID/BASE** is suitable for determination of acids and bases, buffer capacities, carbonates, bicarbonates and other ions in water samples.

Among other things, the titrator fulfils the requirements of the standards **ASTM D 1067**, **ASTM D 1121**, **DIN 38409-7**, **DIN EN ISO 787-4**, **DIN ISO 125**, **ISO 10539**.

The measurement uses a volumetric titration method with sulphuric acid or hydrochloric acid or sodium hydroxide or potassium hydroxide solution. Once the water sample is dosed into the provided solution, the titration with the titrant starts. 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, the result is displayed in the selected unit, other customized units are possible.



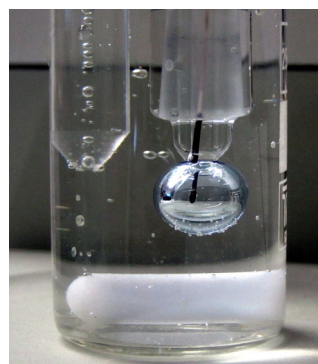
Titramax VT ACID/BASE

Applications

Acid/base titrations are the basis for the adjustment of buffer solutions, the monitoring of foodstuffs, pharmaceuticals, feedstuffs or also for the correct dosing of chemicals in water and wastewater treatment, e. g. for softening and flocculation.

The instrument is suitable for analysis of

- drinking water, surface water, seawater
- technical waters, boiler water, cooling water
- solutions for pharmaceuticals
- extracts from solids such as soils, building materials, waste, foodstuffs, feedstuffs



Titration tip and pH-electrode in sample solution

Advantages

- Complete measuring station for the desired parameter
- 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 a sample

Features

The **Titramax VT ACID/BASE** consists of

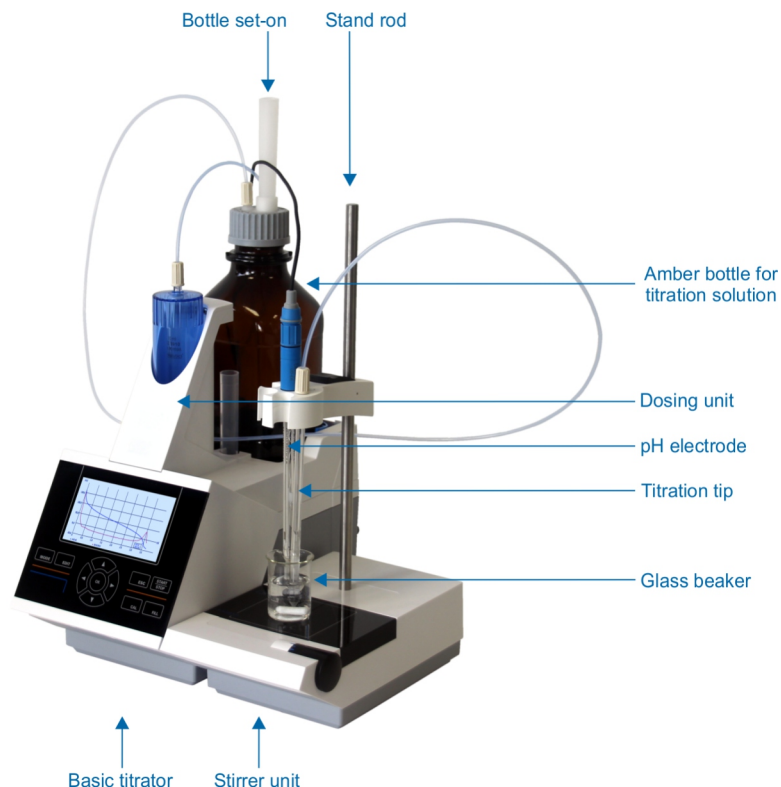
- an automatic volumetric titrator with potentiometric pH indication and integrated temperature sensor
- a titration vessel with stirrer unit

The analysis is based on

- an acid-base-titration in an aqueous medium
- a precise indication by a selective electrode, which is stable over long periods

Steps of the analysis are

1. Calibration of the electrode
2. Standardization of the titration solution
3. Titration of water samples



Technical specifications

Measurement method:

Types of result:

Measuring range pH / mV

Display resolution pH / mV:

Accuracy pH / mV (without sensor):

Measurement range:

Display resolution:

Accuracy (without sensor):

Measurement range temperature:

Amplifier input impedance:

Burette resolution:

Dosing accuracy according DIN EN ISO 8655, part 3:

Filling time:

Power supply:

Power input:

Stirrer connection:

Dimensions:

Weight:

Volumetric titration

Definable in the formular generator, e. g.:

p value mmol/L CaCO_3 = German Hardness degree (dH), m value mmol/L

1 ... 14 / - 2000 ... 2000 mV

0.001 / 0.1 mV

0.002 / 0.1 mV ± 1 digit

0 ... 100 μA

0.1 μA

0.2 $\mu\text{A} \pm 1$ digit

- 75 ... 175 $^{\circ}\text{C}$

$> 1 \cdot 10^{13}$ ohms

10,000 steps for 10 mL / 20 mL ± 0.15 %

Accuracy 0.15 % / Precision 0.05 - 0.07 %

(depending on the used exchange unit)

20 sec

External plug-in power supply 100 - 240 V, 50/60 Hz

30 VA

12 V DC out, 500 mA

30 x 45 x 30 cm (W x H x D), height with exchange unit

Approx. 3.5 kg (with exchange unit and empty reagent bottle)



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