

titramax VT

BROMINE

Bromine Index or Bromine Number of hydrocarbons

Product description

The value of Bromine Index or Bromine Number expresses the trace amount of unsaturated constituents of hydrocarbons and oils. It is determined by measuring of consumed bromine for cleavage of double or multiple bounds during the titration. The value are needed for determination of parameters for further processing of petroleum products.

The **Titramax VT BROMINE** is conform to standards **ASTM D 1159, ASTM D 2710 and ASTM D 5776**.

The measurement uses a potentiometric titration method in an anhydrous medium. The titration with titrant starts, once the sample is dosed into the reagent. The user has to enter the sample weight into the menu. The titration is performed automatically until the endpoint indication of measurement.

At the end of the measurement, results are shown in mg Br₂/100 g (Bromine Index) or g Br₂/100 g (Bromine Number).



Titramax VT BROMINE

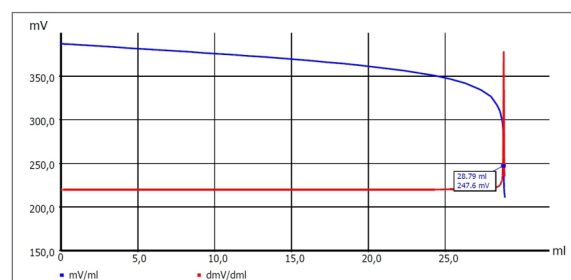
Applications

The titrator is suitable for analysis of

- petroleum distillates
- gasoline (including leaded, unleaded, oxygenated fuels)
- kerosine
- distillates in the gas oil range
- commercial propylene trimer and tetramer
- butene dimer
- mixed nonenes, octenes, heptenes
- olefinfree hydrocarbons or mixtures

Advantages

- Complete measuring system for the determination of Bromine Index or Bromine Number
- 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 an oil sample

Features

The **Titramax VT BROMINE** consists of

- an automatic volumetric titrator with potentiometric indication
- a titration vessel with stirrer unit

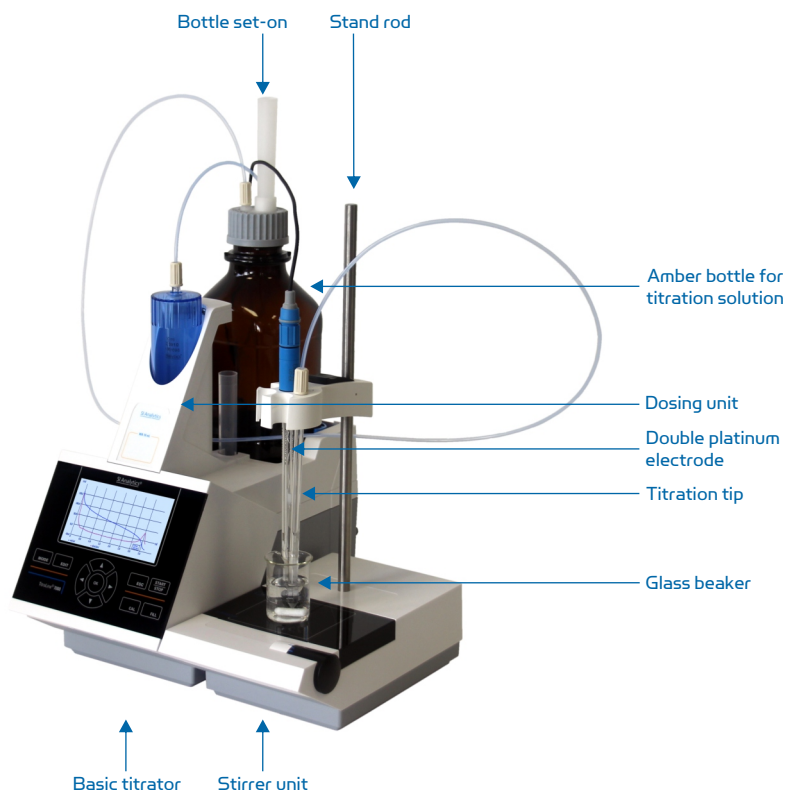
The determination of Bromine Index or Bromine Number is based on

- a potentiometric titration in an anhydrous medium
- a precise indication by a double platinum electrode, which is stable over long periods

The standard solutions and the samples must be titrated at 0 - 5 °C.

Steps of the analysis are

1. Determination of the blank value
2. Standardization of the titration solution
3. Titration of the sample



Technical specifications

Measurement method:

Types of result:

Measuring range / Display resolution:

Measurement range pH / mV:

Display resolution pH / mV:

Accuracy pH / mV (without sensor):

Measurement range μ A:

Display resolution μ A:

Accuracy μ A (without sensor):

Measurement range temperature °C:

Amplifier input impedance:

Burette resolution:

Dosing accuracy according DIN EN ISO 8655, part 3: Accuracy 0.15 % / Precision 0.05 - 0.07 % (depending on the used exchange unit)

Filling time:

Power supply:

Power input:

Stirrer connection:

Dimensions:

Weight:

Volumetric titration

mg KOH/g oil or using the formula generator

0.01 ... 250 mg KOH/g oil / 0.01 mg

- 3.0 ... 18.00 / - 2000 ... 2000

0.001 / 0.1

0.002 / 0.1 mV \pm 1 digit

0 ... 100

0.1

0.2 \pm 1 digit

- 75 ... 175

> 1 · 10¹³ ohms

10,000 steps for 10 mL / 20 mL \pm 0.15 %

Dosing accuracy according DIN EN ISO 8655, part 3: 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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