titramax VT SULPHUR

Hydrogen sulphide and mercaptan sulphur in hydrocarbons and oils

Product description

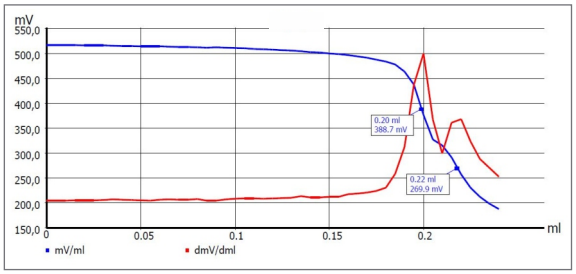
The **Titramax VT SULPHUR** is designed for the determination of sulphur compounds as hydrogen sulphide and mercaptan sulphur in liquid hydrocarbons and oils.
The measurement uses a volumetric titration method with silver nitrate solution in an anhydrous medium. This measurement generates silver sulphide (Ag_2S) and silver mercaptides.
The device is conform to standards **ASTM D 3227, ISO 3012, UOP 163, UOP 212**.
The analysis must be done in an inert gas atmosphere to avoid an oxidation of sulphur compounds by air and thus false measurement results.
The titration speed is precisely adjusted to the reaction rate with control algorithms. Two end points get indicated – first for hydrogen sulphide and second for mercaptan sulphur.
At the end of the measurement, results are shown in mg/kg (ppm) hydrogen sulphide and/or mercaptan sulphur or several other units.

Titramax VT SULPHUR

Applications

The titrator is suitable for analysis of

- fuels (gasoline, kerosines, aviation turbine fuels)
- volatile distillates, middle distillates
- liquified petroleum gas (LPG)
- hydrocarbon gases
- liquid hydrocarbons
- naphtha (petroleum)
- low boiling oils
- light cycle oils
- heavy cycle oils



Titration graph of a sample

Advantages

- Complete measuring system for the determination of hydrogen sulphide and mercaptan sulphur
- 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

Features

The **Titramax VT SULPHUR** consists of

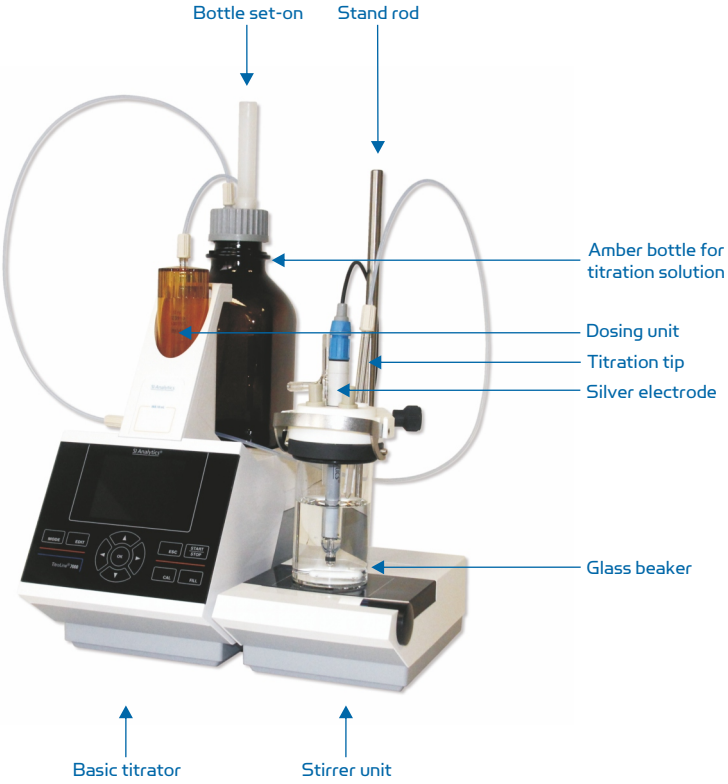
- an automatic volumetric titrator with potentiometric indication
- a titration vessel with stirrer unit

The determination of hydrogen sulphide/mercaptan sulphur is based on

- a potentiometric titration with silver nitrate solution in an anhydrous medium
- a precise indication by a selective silver electrode, which is stable over long periods

Steps of the analysis are

1. Standardization of the titration solution
2. Titration of oil sample or absorption liquid



Technical specifications

Measurement method:	Volumetric titration
Types of result:	mg/kg (ppm) H_2S and/or mercaptan sulphur, formula generator available
Measuring range:	Hydrogen sulphide/sulphide: less than 1 to several thousand mass-ppm Mercaptan sulphur: 3 – 500 mass-ppm typically
Display resolution:	0.01 ppm
Measurement range pH / mV:	- 3.0 ... 18.00 / - 2000 ... 2000
Display resolution pH / mV:	0.001 / 0.1
Accuracy pH / mV (without sensor):	0.002 / 0.1 mV ± 1 digit
Measurement range µA:	0 ... 100
Display resolution µA:	0.1
Accuracy µA (without sensor):	0.2 ± 1 digit
Measurement range temperature °C:	- 75 ... 175
Amplifier input impedance:	$> 1 \cdot 10^{13}$ ohms
Burette resolution:	10,000 steps for 10 mL / 20 mL ± 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)
Filling time:	20 sec
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)

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