



Easy and economical titration



Manual Titrator with magnetic stirrer, stand rod and buret holder

Titration? But that's chemistry!

This is what most non-chemists think when they are confronted by a titration. In many sectors titration is used as a quick and favorably-priced determination method. For example, the total water hardness is determined by titration with EDTA solution and with Eriochrome T as indicator. This is often done by the operator without interrupting the production process.

Other branches also greatly value titration because it is a simple, reliable and reproducible technique for

- chemical plants
- wastewater treatment plants
- pharmacies
- electroplating plants
- the food processing industry
- schools and training facilities

Many potential users shrink back from handling reagents and unfamiliar buret manipulation.

Metrohm's Manual Titrator solves these problems

Titrate easily and quickly with the Manual Titrator in combination with a Magnetic Stirrer and an Exchange Unit.

The reagent is added by pressing the push-button until the indicator changes color. The speed control allows the titrant to be added in very small volume increments, which helps to avoid over-titrating the sample. Pressing a key is all that is required to refill the buret.

The titrant consumption is shown on the titrator display; this means that reading and meniscus errors, which are common with glass burets, can be ruled out. Even under non-ideal lighting conditions, reading the display presents no problem. The resolution of the display is 1 μ L, which is at least ten times better than the reading accuracy of a graduated glass buret. This allows to reduce titrant consumption by diminishing the sample size.



The practical Exchange Units with thread adapters allow the direct connection of reagent bottles from different manufacturers

Exchange Unit included!

The 775 Dosimat comes with a modern Metrohm Exchange Unit that can be fitted with reagent bottles from most suppliers. The reagent bottles can be attached either with the bottle attachment (included in the standard accessories) or with adapters that are available as options.

The whole buret volume is dispensed in 10 000 steps, which results in very high accuracy and reproducibility of the added titrant volume. With the 20 mL Exchange Unit the accuracy is twice as high as that required by DIN 12650!

Exchange Units are available with 1, 5, 10, 20 or 50 mL buret volumes.

Easy and fast reagent change

With the Exchange Units the complicated and unpopular reagent transfer is no longer necessary and handling of the reagents is reduced to a minimum. If different titrations have to be carried out then the titrant is exchanged simply and quickly by replacing the Exchange Unit.

As the Metrohm Exchange Unit is a closed system this means that any alteration to the titrant caused by the environment, e.g. CO₂ absorption by bases, is prevented. Tubing and the buret cylinder are also protected against the influence of light.

The stirrer

The Manual Titrator can be ordered with a Magnetic Stirrer as an option. The stirrer mixes the sample intensively; it is no longer necessary to swirl the titration vessel about. As the stirring conditions are always the same, the reproducibility of the titrations is significantly enhanced.



Changing titrants is a matter of seconds

Technical specifications

Operating mode

Titration using the dosing mode

Display

Backlit liquid crystal display, 16 characters, character height 5 mm

Exchange Units

1, 5, 10, 20, 50 mL
(20 mL Exchange Unit included in the scope of delivery)
Maximum volume display 999.999 mL

Resolution

10 000 impulses for 100% of buret volume

Dispensing accuracy and reproducibility

Better than required by DIN 12650

Ejection and refill time

Ejection time with analog operation: 20 s to 17 min
Refill time: 20 s

Ambient temperature

+5...+40 °C

Storage temperature

–40...+60 °C

Safety specifications

IEC 1010, safety class 1

Line supply

100, 117, 220, 230/240 V ±10%, switchable
Frequency 50...60 Hz

Dimensions with Exchange Unit (WxHxD)

150 x 450 x 275 mm

Weight, including Exchange Unit

4 kg

Ordering information, options

Manual Titrator

- 2.775.0110** Manual Titrator for titrations with color indicator. With automatic stopcock switching. Maximum volume display 999.999 mL. Including push-button cable for manual addition control and one 20 mL Exchange Unit.
- 2.775.0130** Manual Titrator for titrations with color indicator, **including magnetic stirrer**. With automatic stopcock switching. Maximum volume display 999.999 mL. Including push-button cable for manual addition control and one 20 mL Exchange Unit.

Exchange Units with glass cylinder, flat PCTFE/PTFE stopcock and light protection

- 6.3014.113 Exchange Unit 1 mL with one burette tip each for titration and dispensing
- 6.3014.153 Exchange Unit 5 mL with one burette tip each for titration and dispensing
- 6.3014.213 Exchange Unit 10 mL with one burette tip each for titration and dispensing
- 6.3014.223 Exchange Unit 20 mL with one burette tip each for titration and dispensing
- 6.3014.253 Exchange Unit 50 mL with one burette tip each for titration and dispensing

Thread adapters for the Exchange Units

- 6.1618.000 Thread adapter 32 mm/GL45 (Riedel-de Haën 500 mL, Fluka)
- 6.1618.010 Thread adapter 28 mm/GL45 (Fisher)
- 6.1618.020 Thread adapter S40/GL45 (Merck)



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