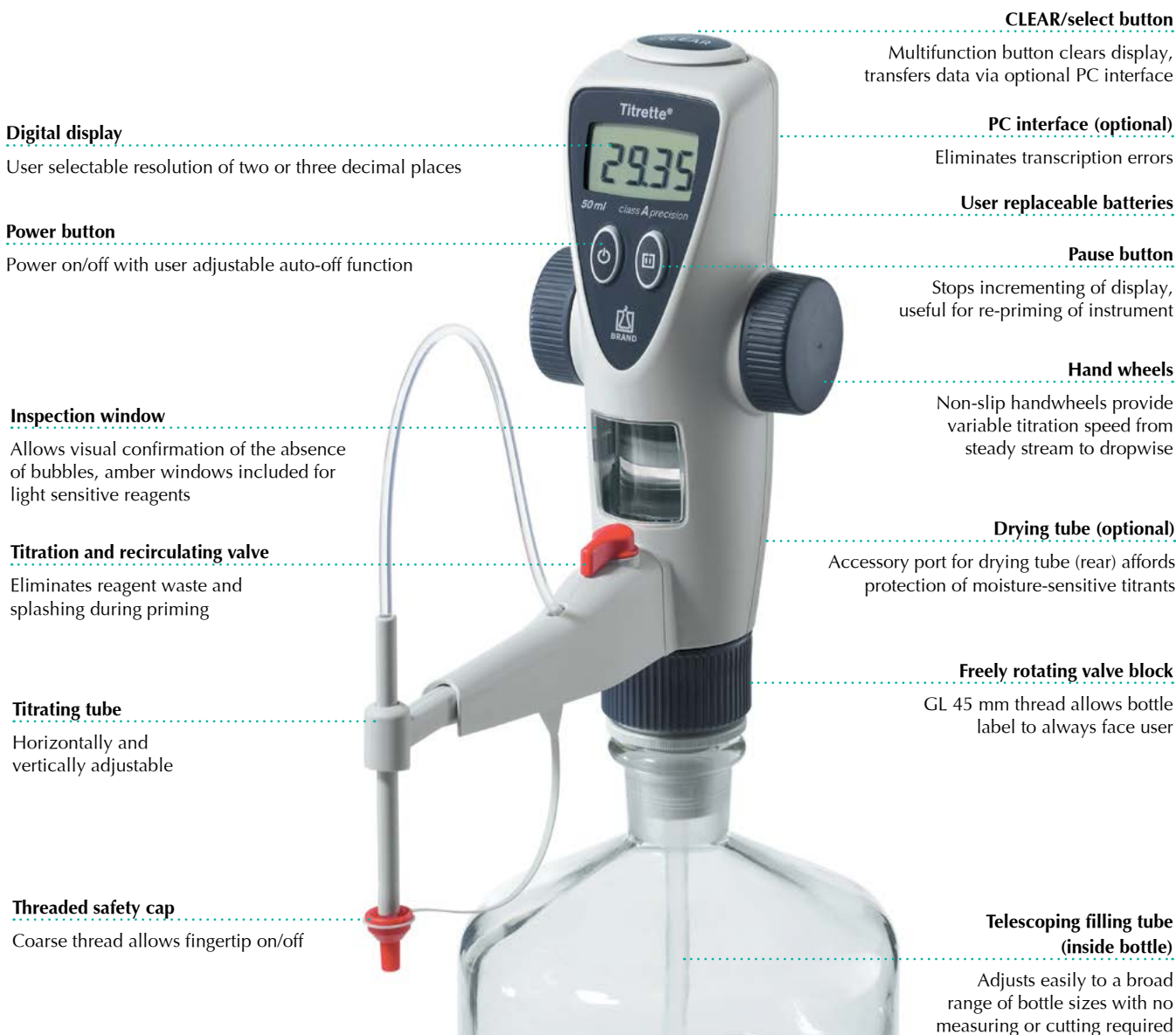


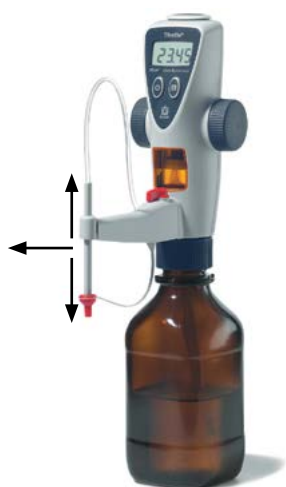
The BRAND® Titrette® bottle-top burette makes routine titrations faster, easier, and more accurate. The Titrette® minimizes the risk of spills from poured transfers to glass or plastic burettes, eliminates meniscus reading errors and offers accuracy that satisfies the tolerances for Class A glass burettes. The instrument is well suited for general chemistry, water treatment applications, food/beverage analysis, industrial titrations, and environmental work in the lab or field.



The world's only
bottle-top burette
with Class A precision



Titrette® Bottletop Burette



Lightweight and compact

All components move within the housing, reducing headroom requirements. The compact design and light weight ensure stability. The titrating tube can be horizontally and vertically adjusted to provide flexibility when using a magnetic stirrer or different bottle sizes.



User serviceable

The Titrette® can be quickly and easily disassembled for cleaning, to replace the piston/cylinder, or to replace the batteries. Maintenance is conveniently and easily completed in the lab, in a few minutes and the instrument is ready to go again!



Light protection

Amber colored light shield inspection windows are included to protect light sensitive media. Installation is quick and easy, as the windows just clip into place.

Chemical Applicability

The Titrette® is suitable for use with the following titrating agents up to a concentration of 1mol/L

- | | | |
|--|--|--|
| – Acetic acid | – Oxalic acid solution | – Sodium nitrite solution |
| – Alcoholic potassium hydroxide solution | – Perchloric acid | – Sodium thiosulfate solution |
| – Ammonium iron (II) sulfate solution | – Perchloric acid in glacial acetic acid | – Sulfuric acid |
| – Ammonium thiocyanate solution | – Potassium bromate solution | – Tetra-n-butylammonium hydroxide solution |
| – Barium chloride solution | – Potassium bromate bromide solution | – Triethanolamine in acetone* |
| – Bromide bromate solution | – Potassium dichromate solution | – Zinc sulfate solution |
| – Cerium (IV) sulfate solution | – Potassium hydroxide solution | |
| – EDTA solution | – Potassium iodate solution | |
| – Hydrochloric acid | – Potassium permanganate solution* | |
| – Hydrochloric acid in acetone | – Potassium thiocyanate solution | |
| – Iodide iodate solution* | – Silver nitrate solution* | |
| – Iodine solution* | – Sodium arsenite solution | |
| – Iron (II) sulfate solution | – Sodium carbonate solution | |
| – Nitric acid | – Sodium chloride solution | |
| | – Sodium hydroxide solution | |

This partial list reflects testing completed prior to publication of this catalog Status as of 11/15/4. Always follow instructions in the operating manual of the instrument as well as the reagent manufacturer's specifications. For information on reagents not listed, please contact us.

* Use amber-colored lightshield inspection window

Technical Data

Operating limits and exclusions

This instrument is designed for titrating liquids, observing the following limits:

- Temperature of instrument and reagents must be between 15° and 40° C
- Vapor pressure up to 500 mbar
- Viscosity up to 500 mm²/s
- Altitude—maximum 3000 m above sea level
- Relative humidity—20% to 90%

Chemically resistant materials

When the Titrette® is properly handled, dispensed liquid will only come into contact with the following chemically resistant materials: borosilicate glass, Al₂O₃, ETFE, PFA, FEP, PTFE, platinum-iridium; PP (screw cap).

Limitations of use

- Chlorinated and fluorinated hydrocarbons or chemical combinations which form deposits may make the piston difficult to move or may cause jamming.
- Suitability of the instrument for a special application (e.g., trace material analysis) must be checked by the user. For additional information, please contact the manufacturer.
- The Titrette® is NOT autoclavable!



Items supplied

- Titrette® bottletop burette
- 45 mm thread
- Performance certificate
- Telescoping filling tube, 170-330 mm
- Recirculation tube
- 2 batteries, AAA/UM4/LR03
- 4 PP bottle adapters: 45/33 mm, 45/S40 mm, 33 mm/STJ29/32 and 45/38 mm
- 2 amber-colored light shield inspection windows
- Operating manual
- One-year warranty

Comparison of Error Limits

		Titrette® bottletop burette				Bottletop burettes according to DIN EN ISO 8655-3				Glass burettes Class A according to DIN EN ISO 385 and ASTM E287
Volume mL	Partial volume mL	A* ≤ ± %	μL	CV* ≤ %	μL	A* ≤ ± %	μL	CV* ≤ %	μL	EL** (DIN EN ISO) Volumetric Tolerance (ASTM) ± μL
10	10	0.10	10	0.05	5	0.3	30	0.1	10	20
	5	0.20	10	0.10	5	0.6	30	0.2	10	20
	1	1.00	10	0.50	5	3	30	1	10	20
25	25	0.07	18	0.025	6	0.2	50	0.1	25	30
	12.5	0.14	18	0.05	6	0.4	50	0.2	25	30
	2.5	0.70	18	0.25	6	2	50	1	25	30
50	50	0.06	30	0.02	10	0.2	100	0.1	50	50
	25	0.12	30	0.04	10	0.4	100	0.2	50	50
	5	0.60	30	0.20	10	2	100	1	50	50

A*=Accuracy, CV*=Coefficient of Variation

* Error limits related to the nominal capacity (= maximum volume) indicated on the instrument, obtained when instrument and distilled water are equilibrated at ambient temperature (20° C) and with smooth operation.

** Error limit—EL = A + 2CV

The maximum resolution of the display—The titration volume is displayed in steps of 1 μL for instruments with 10 mL and 25 mL size and in steps of 2 μL for 50 mL size instruments. For titration volumes above 20 mL the display will automatically switch to steps of 10 μL.

NOTE: If you need an official certification which confirms the error limits that are much stricter than those of DIN EN ISO 8655-3, we recommend a calibration certificate from an accredited calibration laboratory (e.g., the DAKS laboratory at BRAND®).

Titrette® Bottletop Burette

PC interface (optional)

The Titrette® is available with an optional RS232 communications interface.

- The titration results are automatically transmitted to the PC by double-clicking the CLEAR key. This eliminates transcription errors while recording primary data, and complies with GLP requirements.
- The Titrette® sends the titrated volume, the serial number of the instrument, the nominal volume and the adjustment value, as well as the next scheduled calibration date with each data transfer. Thus, all raw data is collected.
- The transmitted data is recognized as keyboard inputs by the PC. This universal input format ensures that the instrument is compatible with all PC applications that accept keyboard inputs.
- To connect the instrument to a USB interface, simply use a standard USB/RS232 adapter.



Titrette® bottle-top burette

Description	Standard Cat. No.	Standard 2019 List Price	Interface Cat. No.	Interface 2019 List Price
10 mL	4760141	\$1,055.20	4760241	\$1,469.00
25 mL	4760151	1,055.20	4760251	1,469.00
50 mL	4760161	1,055.20	4760261	1,469.00

Interface models include: connector cable (Sub-D plug connector, 9-pin), one CD (driver software and open RS232 communication protocol). The CD also includes an example application in XLS-file format, as well as a special operating manual.



Titrette® parts & accessories

Description	Cat. No.	2019 List Price
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Titrating tube

With screw cap and integrated discharge and recirculation valve. Pack of 1

For 10 mL vol. [707525](#) \$102.40

For 25 mL and 50 mL vol. [707529*](#) 102.40

*Manufactured from Jan 2012 onwards (serial #01K)

Filling valve For nominal volume, mL

With olive-shaped nozzle and sealing ring for Titrette®. Pack of 1

10, 25, 50 [6636](#) 69.40

Telescoping filling tube For nominal volume, mL

10, 25, 50- standard 170 - 330 mm (6.7" - 13.0") [708218](#) 49.20

10, 25, 50 250 - 480 mm (9.8" - 18.9") [708220](#) 51.40

Dispensing cylinder

With valve head. Pack of 1

For 10 mL vol. [707533](#) 170.80

For 25 mL vol. [707535*](#) 170.80

For 50 mL vol. [707537*](#) 170.80

*Manufactured from Jan 2012 onwards (serial #01K)

Piston head, Pack of 1

For 10 mL vol. [707531](#) 65.60

For 25 mL vol. [707530](#) 65.60

For 50 mL vol. [707532](#) 65.60

Inspection window, Pack of 1

[6783](#) 20.80

Drying tube

Drying Tube with sealing-ring (without drying agent). Pack of 1

[707930](#) 54.60

Description	Color	Cat. No.	2019 List Price
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Reservoir bottle — Boro 3.3 / soda-lime glass

2000 mL clear [23310](#) \$157.00

2000 mL amber [23320](#) 216.20

Bottle adapter 33 mm-STJ 29/32 [704429](#) 38.00

More bottles and adapters available see page 47.