

Technical data

ERROR
LIMITS
Class A

Comparison of error limits

		Titrette® bottle-top burette				Bottle-top burettes acc. to DIN EN ISO 8655-3				Glass burettes Class A acc. to DIN EN ISO 385 and ASTM
Volume ml	Partial volume ml	A* ≤ ± %	μl	CV* ≤ %	μl	A* ≤ ± %	μl	CV* ≤ %	μl	EL** ± 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

* 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/68 °F) and with smooth operation.

** Error limit: EL = A + 2CV, according to DIN EN ISO 8655-6 Annex B (A = accuracy, CV = coefficient of variation, EL = error limit)

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 DAKKs laboratory at BRAND).

The titration volume is displayed in steps of 1 μl on 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.

Material and reagents

The instrument can be used for the following titration media (maximum concentration 1 mol/l):

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

When the instrument 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. Compatibility 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 instrument is not autoclavable.

Operating limits

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

- + +15 °C to +40 °C (59 °F to 104 °F) of instrument and reagent
- + Vapor pressure up to 500 mbar
- + Viscosity up to 500 mm²/s
- + Altitude: maximum 3000 m above sea level
- + Relative humidity: 20 % to 90 %