

TECHNICAL DATA SHEET

ALab™ dTrite-Pro Electronic Titrator

Bottle-top electronic titration system • three sizes 10 / 25 / 50 mL • volume range to 99.999 mL • three discharge and two suction modes • 4.3-inch touchscreen • Quality Standard: ISO 8655



ACS Material ALab™ dTrite-Pro Electronic Titrator

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SECTION I

Product Overview

The ALab™ dTrite-Pro Electronic Titrator is a bottle-top electronic titration system. Three sizes are listed — 10 mL, 25 mL and 50 mL — each covering a volume range up to 99.999 mL, with the size setting the maximum volume per aspiration, the minimum volume and the suction and discharge speed range. The whole titration process is electronically driven and controlled, supporting standardised laboratory operation and data traceability. Three discharge modes (single drop, fixed volume, manual) and two suction modes (manual, fixed volume) are available. Stirring speed: 5 levels. A 4.3-inch 800 × 480 TFT colour touchscreen provides on-unit operation, or titration can be run remotely using the dedicated operating handle, and the instrument stores up to 1000 experimental records. Bluetooth and Wi-Fi functions are included, and free PC software is available for upstream control. Quality Standard: ISO 8655 (Section III).

SECTION II

Core Advantages

- Electronically driven throughout — the whole titration process is electronically driven and controlled, supporting standardised operation and data traceability
- Touchscreen, Bluetooth and Wi-Fi — 4.3-inch 800 × 480 colour touchscreen for on-unit operation; the instrument stores up to 1000 experimental records; 3500 mAh battery; free PC software
- Three discharge and two suction modes — single drop, fixed volume and manual discharge; manual and fixed-volume suction
- Built-in valve and standard windows — 0–90° valve rotation with rapid exhaust and reagent return; clear and brown windows standard

SECTION III

Specifications

Technical data

Specifications	
Type / Volume Range	Bottle-top electronic titration system · by size, see the table below
Discharge / Suction Modes	Three discharge — single drop · fixed volume · manual; two suction — manual · fixed volume
Stirring Speed / Control Type	5 levels · remote support, including stirrers and titration programmes
Screen / Memory	4.3-inch TFT colour display, 800 × 480 · up to 1000 experimental records
Connectivity / Battery / Software	Bluetooth · Wi-Fi · 3500 mAh battery · free PC software for upstream control
Valve / Windows / Drying Tubes	0–90° valve rotation with rapid exhaust and reagent return · clear and brown windows standard, brown for photosensitive media · drying tubes standard, a suitable absorbent is not included in the scope of delivery
Operating Temp. / Quality Standard	10 °C–30 °C · ISO 8655
Dimensions · Weight	Confirm at quotation

Sizes, volume ranges and working accuracy

10 mL · ALDTRP01	0.010–99.999 mL · max. per aspiration 10 mL · min. 10 µL · speed 10 levels, 0.5–5 mL/s — R 0.2% / 0.4% / 2.0% at 10 / 5 / 1 mL (20 µL); CV 0.07% / 0.14% / 0.7% (7 µL)
25 mL · ALDTRP02	0.020–99.999 mL · max. per aspiration 25 mL · min. 20 µL · speed 10 levels, 0.5–5 mL/s — R 0.2% / 0.4% / 2.0% at 25 / 12.5 / 2.5 mL (50 µL); CV 0.07% / 0.14% / 0.7% (17.5 µL)
50 mL · ALDTRP03	0.020–99.999 mL · max. per aspiration 50 mL · min. 20 µL · speed 10 levels, 1–10 mL/s — R 0.2% / 0.4% / 2.0% at 50 / 25 / 5 mL (100 µL); CV 0.05% / 0.10% / 0.5% (25 µL)

R is systematic error and CV is variation coefficient. Within each size the absolute values in microlitres are the same at all three subvolumes, while the percentages widen as the subvolume falls. Accuracy is specified only at the subvolumes shown. Do not interpolate or extrapolate between these points. ALDTRP codes are ACS Material sales SKUs.

Scope of delivery

- **ACS sales unit: 1 unit**
- **Drying tubes: standard — a suitable absorbent is not included in the scope of delivery**
- **Reagent bottle, receiving flask and stand: confirm at quotation**
- **Clear and brown windows: standard**
- **Dedicated operating handle: confirm at quotation**
- **Package contents and configuration: confirm at quotation**

SECTION IV**Applications**

Typical applications for the ALab™ dTrite-Pro Electronic Titrator include:

- **Acid-base neutralisation, redox, precipitation and complexation titration**
- **Food industry, pharmaceutical and chemical industry, food and drug safety testing**
- **Petrochemicals, environmental testing, metals and plating, surfactants**
- **Third-party testing laboratories**

Product value: three sizes covering a volume range to 99.999 mL, three discharge modes and two suction modes, stirring speed in 5 levels, a 4.3-inch colour touchscreen and capacity for 1000 experimental records, Bluetooth and Wi-Fi functions, a 3500 mAh battery, a 0–90° built-in valve, standard clear and brown windows and drying tubes, and free PC software for upstream control.

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