

LabPRO BOTTLE TOP DISPENSER

With re-circulation valve

LabPRO products are specially designed to offer high performance with Swiss accuracy yet with economical value. This highly robust and reliable dispenser has several unique features suitable for a wide range of reagents with high precision and accuracy. LabPro Bottle Top Dispenser has a re-circulation valve that re-directs liquid into the bottle to allow bubble free dispensing without any loss of reagent. Its smooth and soft plunger mechanism makes it easy to use in a demanding laboratory environment.

VOLUME ADJUSTMENT KNOB:

180° Rotation for Easy & Effortless Volume Setting.

CALIBRATION:

Specially designed calibration tool is provided for convenient and quick in-lab user re-calibration. This is in compliance with GLO/ISO norms.

RE-CIRCULATION VALVE:

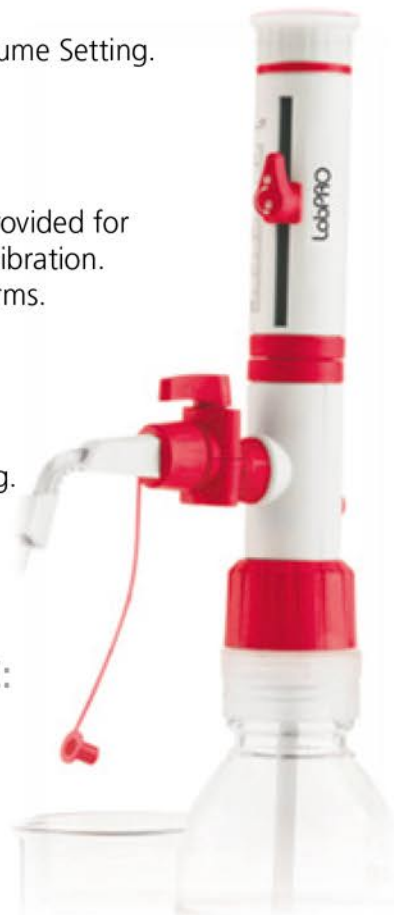
Prevents loss of reagent during purging.

ADJUSTABLE DELIVERY NOZZLE:

Adjustable delivery nozzle to facilitate dispensing ease in all demanding laboratory conditions.

UNIQUE PISTON & SPRINGLESS VALVE:

Specially designed, springless, PTF valve manifold and PTFE Piston ensures high chemical compatibility and smooth movement



ADAPTORS:

Adaptors to fit most of the laboratory reagent bottles are provided in the following sizes: 28, 30, 32, 36, 40 and 45 mm

SPECIFICATIONS & ORDERING INFORMATION

Model	Volume	Increment	Accuracy		CV	
	Range(ml)	µl (ml)	±%	±µl	±%	±µl
LPD-2.5	0.25-2.5	0.05	0.6	0.015	0.2	0.005
LPD-5	0.5-5	0.1	0.6	0.030	0.2	0.010
LPD-10	1-10	0.2	0.6	0.060	0.2	0.020
LPD-30	2.5-30	0.5	0.6	0.180	0.2	0.060
LPD-60	5-60	1.0	0.6	0.360	0.2	0.120
LPD-100	10-100	2.0	0.6	0.600	0.2	0.200

COMPONENT DESCRIPTION

Component	Compatibility
Piston	PTFE & ETP
Cylinder	Borosilicate Glass
Volume Adjustment Knob	PP. 180° Rotation
Valve Housing	PFA
Re-Circulation Valve Housing	PFA
Valve Assembly	Borosilicate Glass Ball & Seat
Discharge Assembly	PTFE
Delivery Tube	FEP
Inlet Tube	FEP
Calibration	Individually calibrated and certified. In-lab easy Calibration by the user is also possible.
Accuracy & Reproducibility	In accordance with ISO 8655 standards.
Compatibility	Excellent compatibility with all reagents except HF

LabPRO HIGH PRECISION MICROPIPETTES

Variable volume, fully autoclavable

LabPRO products are specially designed to offer high performance with Swiss accuracy yet with economical value. The high precision micropipette series are essential to those who relies on accuracy, especially users in the fields of molecular biology, microbiology, immunology, cell culture, analytical chemistry, biochemistry, and genetics. Its nine volume range covers the complete pipetting range from 0.2 μ l to 10 ml to offer its user a wider selection to find the most suitable model for any application.

SOFT GRIP & ERGONOMIC DESIGN:

New body design with soft grip and improved ergonomomy for more comfort and less fatigue during operation.

EASY VOLUME ADJUSTMENT:

Easy Volume Adjustment by simply turning the plunger. Plunger does not snag gloves.

VOLUME SETTING:

Soft click sound at every increment ensures perfect volume setting and no accidental volume change. It also facilitates single handed operation.

DIGITAL DISPLAY:

4 digit display with sub divisions provides small volume increments

UNIVERSAL TIP CONE:

Compatible with most of the internationally accepted standard tips.



SPECIFICATIONS & ORDERING INFORMATION

Fully Autoclavable Variable Volume Micropipettes

Model	Volume Range (μ l)	Inc. μ l	A		CV	
			$\pm\%$	$\pm\mu$ l	$\pm\%$	$\pm\mu$ l
LPP-2	0.2 - 2.0	0.002	2	0.04	1.2	0.024
LPP-10	0.5 - 10	0.02	1	0.1	0.5	0.05
LPP-20	2 - 20	0.02	0.8	0.16	0.4	0.08
LPP-50	5 - 50	0.1	0.8	0.4	0.4	0.2
LPP-100	10 - 100	0.2	0.6	0.6	0.2	0.2
LPP-200	20 - 200	0.2	0.6	1.2	0.2	0.4
LPP-1000	100 - 1000	1.0	0.6	6	0.2	42
LPP-5000	0.5 - 5 ml	10.0	0.6	30	0.2	10
LPP-10000	1 - 10 ml	20.0	0.6	60	0.2	20

Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20°C, and with smooth, steady operation. The error limits are well within the limits of DIN EN ISO 8655 - 2. (See Table 1) A = Accuracy, CV = Coefficient of variation.

Table 1- Maximum permissible errors as per ISO 8655-2

Nominal Volume	Maximum permissible systematic error		Maximum permissible random error	
	$\pm\%$	$\pm\mu$ l	$\pm\%$	$\pm\mu$ l
1	5.0	0.05	5.0	0.05
2	4.0	0.08	2.0	0.04
5	2.5	0.125	1.5	0.075
10	1.2	0.12	0.8	0.08
20	1.0	0.2	0.5	0.1
50	1.0	0.5	0.4	0.2
100	0.8	0.8	0.3	0.3
200	0.8	1.6	0.3	0.6
500	0.8	4.0	0.3	1.5
1000	0.8	8.0	0.3	3.0
2000	0.8	16	0.3	6.0
5000	0.8	40	0.3	15.0
10000	0.6	60	0.3	30.0

In the conformity test, the maximum permissible errors for the nominal volumes in Tables 1 apply to every selectable volume throughout the useful volume range of the piston pipette; i.e. the maximum permissible systematic errors of variable-volume piston pipette with a useful volume range of 10 μ l to 100 μ l are $\pm 0.8 \mu$ l and the maximum permissible random errors are $\pm 0.3 \mu$ l for every measured volume.