Dispensette®

Dispensette® III, and Dispensette® Organic, bottletop dispensers improve accuracy, safety, and reagent conservation in a broad range of applications. They mount directly on most solvent and reagent bottles for faster, more convenient dispensing. Instruments are autoclavable at 121ºC (250ºF) for use with sterile reagents.

- **Dispense Most Lab Reagents:** Choose the Dispensette® III for acids, bases, saline solutions, as well as many organic solvents; the Dispensette® Organic for organic solvents, combinatorial chemistry solvents, concentrated acids such as HCl and HNO_3, trifluoroacetic acid (TFA), tetrahydrofuran (THF), and peroxides. See Selection Chart on page 38 for help selecting the best dispenser.
- **Deliver Accurate, Precise Volumes:** Dispensers are accurate to 0.5% (1% for 0.5mL models), with coefficients of variation of 0.1% (0.2% for 0.5mL). Digital models feature accurate and reproducible volume settings via a mechanical digital display. Easy Calibration™ technology simplifies ISO/GLP compliance.
- **Increase Laboratory Safety:** Dispensers mount on reagent bottles to reduce poured reagent transfers. They include a number of safety features to reduce the risk of injury from inadvertent dispensing and splashes. SafetyPrime™ valve system enhances reagent conservation and safety. Many accessories are available for remote, serial and drum dispensing.
- **Resist Wear and Damage:** Unique design ensures smooth operation and eliminates wearing parts. Dispensers disassemble easily to simplify cleaning and maintenance.
- **HF and Trace Analysis Dispensing:** For dispensing of high purity acids and solvents, or hydrofloric acid, choose the Dispensette® TA. For details, see page 37

The Standard in Bottletop Dispensing For Over 40 Years.

BRAND®

Dispensette® bottletop dispensers

Dispensette® Organic
(Analog-adjustable model)

Discharge Tube Safety Screw Cap
One-twist cap helps protect against reagent contact and is easy to attach and remove, even while wearing gloves.

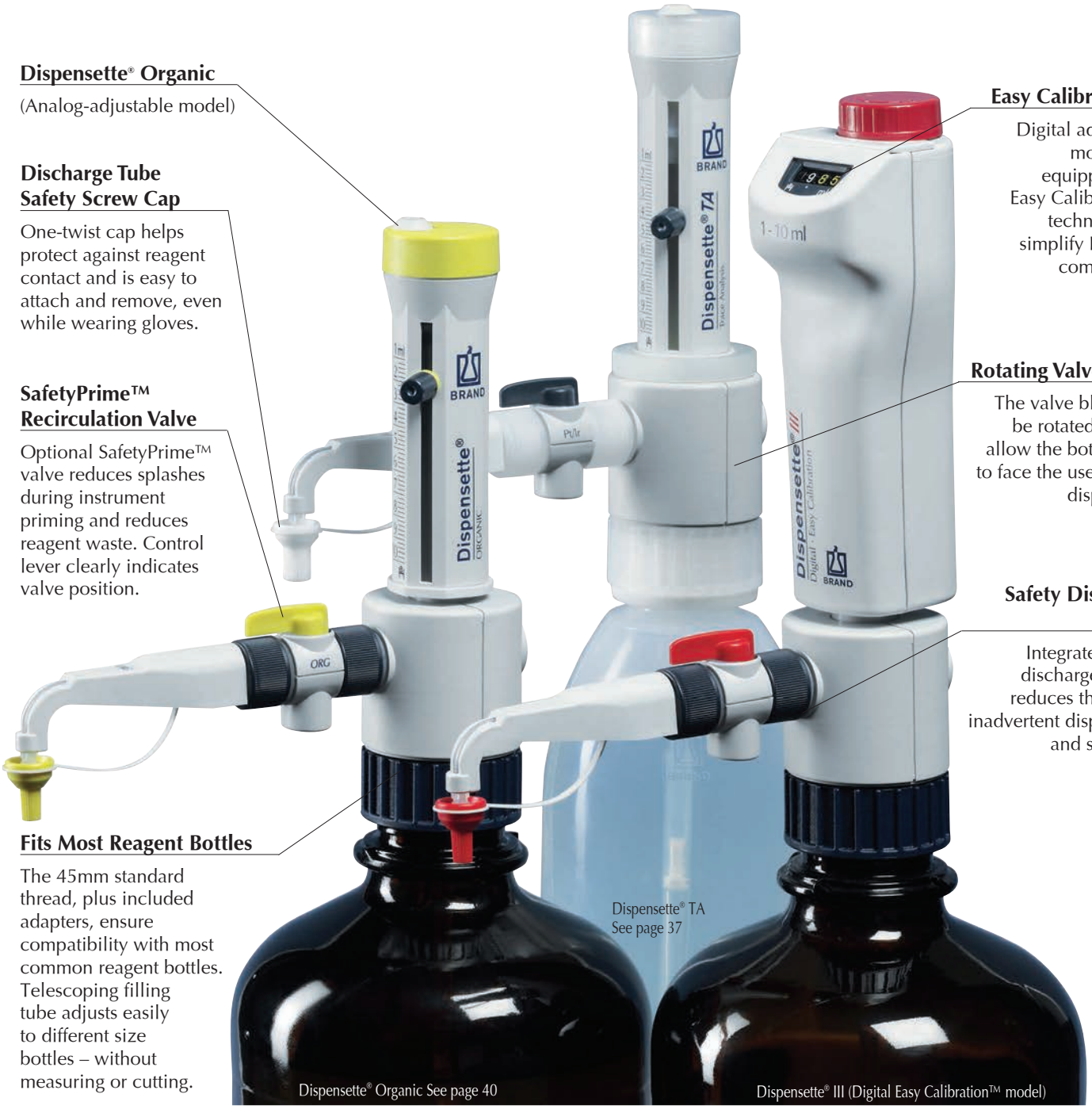
SafetyPrime™ Recirculation Valve
Optional SafetyPrime™ valve reduces splashes during instrument priming and reduces reagent waste. Control lever clearly indicates valve position.

Fits Most Reagent Bottles
The 45mm standard thread, plus included adapters, ensure compatibility with most common reagent bottles. Telescoping filling tube adjusts easily to different size bottles – without measuring or cutting.

Easy Calibration™
Digital adjustable models are equipped with Easy Calibration™ technology to simplify ISO/GLP compliance.

Rotating Valve Block
The valve block can be rotated 360° to allow the bottle label to face the user during dispensing.

Safety Discharge System
Integrated safety discharge system reduces the risk of inadvertent dispensings and splashes.



Dispensette® TA
See page 37

Dispensette® Organic See page 40

Dispensette® III (Digital Easy Calibration™ model)

Dispensette® bottletop dispensers

Dispensette® Volume Adjustment

Product Features:

Both the Dispensette® III and Dispensette® Organic are constructed using the "floating piston" principle.

Each piston is matched individually with precise tolerances to the cylinder of the instrument. A thin film of the dispensed liquid of just a few µm thick acts as a non-wearing seal that reduces friction, so dispensing is easy and convenient.

- The 45mm standard thread, plus included adapters, fit most common lab bottles.
- The valve block can be rotated 360° so that the bottle label always faces the user for safety.
- A telescoping filling tube adjusts to different bottle sizes.
- The instrument is easy to disassemble for cleaning.
- Valves are replaceable for simple, economical service.
- Dispensette® III and Dispensette® Organic are autoclavable at 121°C.
- Easy to calibrate and adjust in order to comply with ISO 9001 and GLP guidelines. A positive indicator automatically indicates adjustment from factory settings.
- An extensive line of accessories facilitates specialized dispensing tasks like sterile applications or dispensing from large containers.

Digital Easy Calibration™ models

- Digital Easy Calibration™ models enable accurate and reproducible volume setting with an easy-to-read display and a convenient adjustment knob. Simply turn the knob. The mechanical adjustment mechanism displays the volume in digits.
- Features unique Easy Calibration™ technology (see page 56) for calibration adjustment in seconds without tools.
- Excellent for labs with multiple users, and in circumstances requiring frequent volume changes to precise volumes.

Analog-adjustable models

- Analog slide enables rapid volume adjustments
- Calibration adjustments are simplified with included tool

Fixed-volume models

- Fixed-volume for standardized applications
- Calibration adjustments are simplified with included tool

Dispensette® bottletop dispensers

Applications

One-handed operation

"Floating piston" design eliminates the seals that often wear and fail on other dispensers. This allows the Dispensette® piston to move very smoothly, permitting safe, simple, one-handed dispensing, even with a nearly-empty reagent bottle.

Dispensing sterile fluids

Dispensette® bottletop dispensers (except Dispensette® TA) are autoclavable at 121°C (250°F) and can be fitted with an optional microfilter to prevent contamination of bottle contents. Sterile technique must be followed.

Serial dispensing

The optional flexible discharge tube with safety handle speeds serial dispensing tasks, and permits fast and precise dispensing even into narrow test tubes. Functions of SafetyPrime™ valve and safety discharge system are fully maintained with the flexible discharge tube.

Dispensing sensitive reagents

Optional drying tube screws into the accessory port of the Dispensette® to protect sensitive reagents from humidity or CO_2. (Absorbing agent not included.)

Dispensing from bulk containers minimizes risk of contaminating high-purity reagents

Simply connect the Dispensette® III or Dispensette® Organic to the optional Remote Dispensing System for accurate dispensing from drums and other bulk containers up to 10m (30 feet) away. Maximum delivery height is 1.2 meters. A quick-release connector with integrated valves simplifies changing the bulk container. The drum adapter air inlet filter minimizes risk of contaminating high-purity reagents.

NOTE: *Not for use with SafetyPrime™ recirculation valve, pressurized vessels, peroxides (which will react with the platinum-iridium spring), HF or other liquids which attack borosilicate glass, alumina ceramic, PFA, ETFE, FEP or PTFE. Observe all safety instructions, operating exclusions, and limitations of the operating manuals of the Dispensette® bottletop dispensers.*

Areas of application / Suggested dispenser (as of July 2013)

■ **Dispensette® III(Disp. III)** ■ **Dispensette® *Organic* (Disp. *Organic*)**

Reagent	Disp. III	Disp. Organic	Reagent	Disp. III	Disp. Organic	Reagent	Disp. III	Disp. Organic
Acetaldehyde	+	+	Cyclohexane		+	Mineral oil (Engine oil)	+	+
Acetic acid (glacial), 100%	+	+	Cyclohexanone	+	+	Monochloroacetic acid	+	+
Acetic acid, 96%	+	+	Cyclopentane		+	Nitric acid, 30%	+	+
Acetic anhydride		+	Decane	+	+	Nitric acid, 30-70% *		+
Acetone	+	+	1-Decanol	+	+	Nitrobenzene	+	+
Acetonitrile	+	+	Dibenzyl ether	+	+	Oleic acid	+	+
Acetophenone		+	Dichloroacetic acid		+	Oxalic acid	+	
Acetyl chloride		+	Dichlorobenzene	+	+	n-Pentane		+
Acetylacetone	+	+	Dichloroethane		+	Peracetic acid		+
Acrylic acid	+	+	Dichloroethylene		+	Perchloric acid	+	+
Acrylonitrile	+	+	Dichloromethane		+	Perchloroethylene		+
Adipic acid	+		Diesel oil (Heating oil), bp 250-350 °C)		+	Petroleum, bp 180-220°C		+
Allyl alcohol	+	+	Diethanolamine	+	+	Petroleum ether, bp 40-70°C		+
Aluminium chloride	+		Diethyl ether		+	Phenol	+	+
Amino acids	+		Diethylamine	+	+	Phenylethanol	+	+
Ammonia, 20%	+	+	1.2 Diethylbenzene	+	+	Phenylhydrazine	+	+
Ammonia, 20-30%		+	Diethylene glycol	+	+	Phosphoric acid, 85%	+	+
Ammonium chloride	+		Dimethyl sulfoxide (DMSO)	+	+	Phosphoric acid, 85% + Sulfuric acid, 98%, 1:1	+	+
Ammonium fluoride	+		Dimethylaniline	+		Piperidine	+	+
Ammonium sulfate	+		Dimethylformamide (DMF)	+	+	Potassium chloride	+	
n-Amyl acetate	+	+	1.4 Dioxane		+	Potassium dichromate	+	
Amyl alcohol (Pentanol)	+	+	Diphenyl ether	+	+	Potassium hydroxide	+	
Amyl chloride (Chloropentane)		+	Essential Oil		+	Potassium permanganate	+	
Aniline	+	+	Ethanol	+	+	Propionic acid	+	+
Barium chloride	+		Ethanolamine	+	+	Propylene glycol (Propanediol)	+	+
Benzaldehyde	+	+	Ethyl acetate	+	+	Pyridine	+	+
Benzene (Benzol)	+	+	Ethylbenzene		+	Pyruvic acid	+	+
Benzine (Petroleum benzin), bp 70-180 °C		+	Ethylene chloride		+	Salicylaldehyde	+	+
Benzoyl chloride	+	+	Fluoroacetic acid		+	Scintilation fluid	+	+
Benzyl alcohol	+	+	Formaldehyde, 40%	+		Silver acetate	+	
Benzylamine	+	+	Formamide	+	+	Silver nitrate	+	
Benzylchloride	+	+	Formic acid, 100%		+	Sodium acetate	+	
Boric acid, 10%	+	+	Glycerol	+	+	Sodium chloride	+	
Bromobenzene	+	+	Glycol (Ethylene glycol)	+	+	Sodium dichromate	+	
Bromonaphthalene	+	+	Glycolic acid, 50%	+		Sodium fluoride	+	
Butanediol	+	+	Heating oil (Diesel oil), bp 250-350°C		+	Sodium hydroxide, 30%	+	
1-Butanol	+	+	Heptane		+	Sodium hypochlorite	+	
n-Butyl acetate	+	+	Hexane		+	Sulfuric acid, 98%	+	+
Butyl methyl ether	+	+	Hexanoic acid	+	+	Tartaric acid	+	
Butylamine	+	+	Hexanol	+	+	Tetrachloroethylene		+
Butyric acid	+	+	Hydriodic acid	+	+	Tetrahydrofuran (THF) */ **		+
Calcium carbonate	+		Hydrobromic acid		+	Tetramethylammonium hydroxide	+	
Calcium chloride	+		Hydrochloric acid, 20%	+	+	Toluene		+
Calcium hydroxide	+		Hydrochloric acid, 20-37%		+	Trichloroacetic acid		+
Calcium hypochlorite	+		Hydrogen peroxide, 35%		+	Trichlorobenzene		+
Carbon tetrachloride		+	Isoamyl alcohol	+	+	Trichloroethane		+
Chloro naphthalene	+	+	Isobutanol	+	+	Trichloroethylene		+
Chloroacetaldehyde, 45%	+	+	Isooctane		+	Trichlorotrifluoro ethane		+
Chloroacetic acid	+	+	Isopropanol (2-Propanol)	+	+	Triethanolamine	+	+
Chloroacetone	+	+	Isopropyl ether	+	+	Triethylene glycol	+	+
Chlorobenzene	+	+	Lactic acid	+		Trifluoro ethane		+
Chlorobutane	+	+	Methanol	+	+	Trifluoroacetic acid (TFA)		+
Chloroform		+	Methoxybenzene	+	+	Turpentine		+
Chlorosulfonic acid		+	Methyl benzoate	+	+	Urea	+	
Chromic acid, 50%	+	+	Methyl butyl ether	+	+	Xylene		+
Chromosulfuric acid	+		Methyl ethyl ketone	+	+	Zinc chloride, 10%	+	
Copper sulfate	+		Methyl formate	+	+	Zinc sulfate, 10%	+	
Cresol		+	Methyl propyl ketone	+	+	* use ETFE/PTFE bottle adapter		
Cumene (Isopropyl benzene)	+	+	Methylene chloride		+	** use PTFE seal		

The above recommendations reflect testing completed prior to publication. Always follow instructions in the operating manual of the instrument as well as the reagent manufacturer's specifications. In addition to these chemicals, a variety of organic and inorganic saline solutions (e.g., biological buffers), biological detergents and media for cell culture can be dispensed. Should you require information on chemicals not listed, please feel free to contact BrandTech Scientific. Status as of: 0713/12

Dispensette® TA Pt-Ir

For dispensing HF, we recommend the use of the Dispensette® TA bottle-top dispenser with platinum-iridium valve spring (Cat. No. 4741041, page 37).

Dispensette® bottletop dispensers technical data

Operating limitations (all instruments)

Liquids which form deposits may make the piston difficult to move or may cause jamming (e.g., crystallizing solutions or concentrated alkaline solutions).

When dispensing inflammable media, make sure to avoid the buildup of static charge, e.g., do not dispense into plastic vessels; do not wipe instruments with a dry cloth.

The Dispensette® is designed for general laboratory applications and complies with the relevant standards, e.g., DIN EN ISO 8655. Compatibility of the instrument for a specific application (e.g., trace material analysis, food sector, etc.) must be checked by the user. Approvals for specific applications, e.g., for production and administration of food, pharmaceuticals and cosmetics are not available.

Items supplied

Each Dispensette® III, Dispensette® Organic, Dispensette® TA includes:

- Certificate of performance
- Discharge tube
- Valve Mounting/Calibration tool
- Adapters and filling tube
- Operating manual
- One-year warranty

Supplied Adapters and Filling Tubes

Nominal Volume,mL	Adapter for bottle thread, mm	Filling tube length, mm
For Dispensette® III and Dispensette® Organic (PP)		
0.5	24, 28, 33, 38	125-240
1, 2, 5, 10	28, 33, 38	125-240
25, 50, 100	33, 38	170-330
For Dispensette® TA		
10	28, 33, S 40	125-240

Limitations of use (all instruments)

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

- use between +15°C and +40°C (59°F and 104°F) of instrument and reagent
- vapor pressure up to max. 600mbar. Aspirate slowly above 300mbar, in order to prevent the liquid from boiling
- kinematic viscosity up to 500mm²/s (dynamic viscosity [mPas] = kinematic viscosity [mm²/s] x density [g/cm³])
- density: Dispensette® III/Dispensette® Organic: up to 2.2g/cm³ and Dispensette® TA up to 3.8g/cm³

Operating Exclusions – Dispensette® III

Never use the Dispensette® III with:

- liquids attacking Al_2O_3-ceramic, ETFE, FEP, PFA and PTFE (e.g., dissolved sodium azide*)
- liquids attacking borosilicate glass (e.g., hydrofluoric acid)
- liquids which are decomposed catalytically by platinum-iridium (e.g., H_2O_2)
- hydrochloric acid > 20% and nitric acid > 30%
- tetrahydrofuran
- trifluoroacetic acid
- explosive liquids (e.g., carbon disulfide)
- suspensions (e.g., of charcoal) as solid particles may clog or damage the instrument
- liquids attacking PP (screw cap)

Operating Exclusions – Dispensette® Organic

Never use the Dispensette® Organic with:

- liquids attacking Al_2O_3-ceramic, tantalum, ETFE, FEP, PFA and PTFE (e.g., dissolved sodium azide*)
- liquids attacking borosilicate glass (e.g.,hydrofluoric acid)
- bases and saline solutions
- explosive liquids (e.g., carbon disulfide)
- suspensions (e.g., of charcoal) as solid particles may clog or damage the instrument
- liquids attacking PP (screw cap)

Operating limits and exclusions – Dispensette® TA

Never use the Dispensette® TA with:

- liquids attacking Al_2O_3 sapphire or fluoroplastics like ETFE, FEP, PFA and PTFE (e.g., dissolved sodium azide*)
- liquids which are decomposed catalytically by platinum-iridium (e.g., H_2O_2) or tantalum, depending on the construction of the instrument
- organic solvents
- trifluoroacetic acid
- explosive liquids (e.g., carbon disulfide)
- suspensions (e.g., of charcoal) as solid particles may clog or damage the instrument

- The Dispensette®TA must not be autoclaved

*Dissolved sodium azide permitted up to a concentration of max 0.1%

Dispensette® bottletop dispensers

ORDERING INFORMATION

Dispensette® III						Without SafetyPrime™ valve		With SafetyPrime™ valve	
		A* < ±		CV* ≤			2014		2014
Volume, mL	Increments, mL	%	µL	%	µL	Cat. No.	List Price	Cat. No.	List Price
Dispensette® III, Digital Easy Calibration™									
0.2-2	0.01	0.5	10	0.1	2	4701320	$472.00	4701321	$514.00
0.5-5	0.02	0.5	25	0.1	5	4701330	472.00	4701331	514.00
1-10	0.05	0.5	50	0.1	10	4701340	472.00	4701341	514.00
2.5-25	0.1	0.5	125	0.1	25	4701350	646.00	4701351	682.00
5-50	0.2	0.5	250	0.1	50	4701360	657.00	4701361	693.00
Dispensette® III, Analog-adjustable									
0.05-0.5	0.01	1.0	5	0.2	1	4701100	419.00	4701101	441.00
0.2-2	0.05	0.5	10	0.1	2	4701120	419.00	4701121	441.00
0.5-5	0.1	0.5	25	0.1	5	4701130	419.00	4701131	441.00
1-10	0.2	0.5	50	0.1	10	4701140	419.00	4701141	441.00
2.5-25	0.5	0.5	125	0.1	25	4701150	588.00	4701151	615.00
5-50	1.0	0.5	250	0.1	50	4701160	605.00	4701161	629.00
10-100	1.0	0.5	500	0.1	100	4701170	935.00	4701171	966.00
Dispensette® III, Fixed-volume									
1		0.5	5	0.1	1	4701210	419.00	4701211	441.00
2		0.5	10	0.1	2	4701220	419.00	4701221	441.00
5		0.5	25	0.1	5	4701230	419.00	4701231	441.00
10		0.5	50	0.1	10	4701240	419.00	4701241	441.00

Dispensette® Organic						Without SafetyPrime™ valve		With SafetyPrime™ valve	
		A* < ±		CV* ≤			2014		2014
Volume, mL	Increments, mL	%	µL	%	µL	Cat. No.	List Price	Cat. No.	List Price
Dispensette® Organic, Digital Easy Calibration™									
0.5-5	0.02	0.5	25	0.1	5	4731330	$514.00	4731331	$542.00
1-10	0.05	0.5	50	0.1	10	4731340	514.00	4731341	542.00
2.5-25	0.1	0.5	125	0.1	25	4731350	690.00	4731351	710.00
5-50	0.2	0.5	250	0.1	50	4731360	714.00	4731361	742.00
Dispensette® Organic, Analog-adjustable									
0.5-5	0.1	0.5	25	0.1	5	4731130	462.00	4731131	472.00
1-10	0.2	0.5	50	0.1	10	4731140	462.00	4731141	472.00
2.5-25	0.5	0.5	125	0.1	25	4731150	647.00	4731151	657.00
5-50	1.0	0.5	250	0.1	50	4731160	657.00	4731161	668.00
10-100	1.0	0.5	500	0.1	100	4731170	1015.00	4731171	1035.00

Dispensette® TA								With SafetyPrime™ valve	
			A* < ± %		CV* ≤ %				2014
Volume, mL	Valve Spring	Subdivision, mL	%	µL	%	µL		Cat. No.	List Price
Dispensette® TA, Analog-adjustable									
1-10	Platinum-iridium	0.2	0.5	50	0.1	10		4741041	$1090.00
1-10	Tantalum	0.2	0.5	50	0.1	10		4741241	1090.00

* The value of accuracy and coefficient of variation are final test values referring to the delivered nominal volume, instrument and distilled water at equilibrium with ambient temperature (20°C/68°F) and with smooth operation.

A*=Accuracy, CV*=Coefficient of Variation

Dispensette® III Digital Easy Calibration™

Dispensette® Organic Digital Easy Calibration™

Dispensette® TA with Safety Prime™ Valve