Dispensette®

Bottle-top Dispenser

- Dispensette® III
- Dispensette® Organic
- Dispensette® HF

The Dispensette® bottle-top dispenser has proven itself the world over with its wide range of practical applications.
It has been continuously improved over decades to meet the increasing demands of the laboratory.

For any application
the right Dispensette®.

Models

The wide range of Dispensette® bottle-top dispensers provides premium dispensing options for the complete spectrum of liquid reagents:

Dispensette® III (red color-code):

- Digital · Easy Calibration type
- Analog-adjustable type
- Fixed-volume type

For dispensing aggressive reagents, including concentrated acids such as H_3PO_4, H_2SO_4, bases like NaOH, KOH, saline solutions, as well as many organic solvents.

Dispensette® Organic (yellow color-code):

- Digital · Easy Calibration type
- Analog-adjustable type
- Fixed-volume type

For dispensing organic solvents, including chlorinated and fluorinated hydrocarbons (e.g., trichlorotrifluoroethane and dichloromethane), concentrated acids (e.g., HCl and HNO_3), trifluoroacetic acid (TFA), tetrahydofuran (THF) and peroxides.

Dispensette® HF (green color-code):

- Analog-adjustable type

For dispensing hydrofluoric acid (HF). Maximum permitted concentration 52%. A closure set is recommended because of the fumes, see page 19.

Areas of application

(For assistance in selecting a system, please see the guide on page 15.)

Bases	Saline solutions	Acids	Organic solvents polar non-polar	Hydrofluoric acid (HF)
Dispensette® III				
		Dispensette® Organic		
				Dispensette® HF

Parts in contact with medium

- Dispensette® III: borosilicate glass, ceramic, platinum-iridium, ETFE, FEP, PFA and PP (discharge tube safety screw cap)
- Dispensette® Organic: borosilicate glass, ceramic, tantalum, ETFE, FEP, PFA and PP (discharge tube safety screw cap)
- Dispensette® HF: ceramic, platinum-iridium, ETFE, FEP, PFA and PP (discharge tube safety screw cap)

Operating limits

- Dispensette® III: vapor pressure max. 500 mbar, viscosity max. 500 mm^2/s, temperature max. 40 °C, density max. 2.2 g/cm^3
- Dispensette® Organic: vapor pressure max. 500 mbar, viscosity max. 500 mm^2/s, temperature max. 40 °C, density max. 2.2 g/cm^3
- Dispensette® HF: vapor pressure max. 500 mbar, viscosity max. 500 mm^2/s, temperature max. 40 °C, density max. 3.8 g/cm^3

A Closer Look...

The Digital · Easy Calibration type has a digital display and all the features that make dispensing safer and convenient.

Mechanical/digital display
The mechanical volume setting is easy to read and ensures accurate and reproducible volume control.

SafetyPrime™ recirculation valve
The SafetyPrime™ recirculation valve (optional) reduces risk of splashes caused by air bubbles during instrument priming and permits recirculation during priming to avoid reagent waste. Valve control knob clearly indicates valve position.

Safety discharge system
The integrated safety discharge system reduces the risk of inadvertent dispensing and splashes if discharge tube is improperly installed or missing.

Discharge tube safety screw cap
Screw cap protects against reagent contact and is easy to attach and remove, even while wearing gloves.

Easy Calibration Technique
Calibration and adjustments according to ISO 9001 and GLP are done within seconds. Alteration of factory setting is automatically indicated by a red recalibration flag. For more information please see page 288.

Easy to use
The minimal force needed to operate the floating piston makes serial dispensing convenient and effortless.

Rotating valve block
To allow the bottle label to face the user, the valve block can be rotated 360°. The 45 mm standard thread plus the included adapters fit common lab bottles.

Telescoping filling tube
Adjusts easily to different size bottles – without measuring or cutting.

Use and Handling

One-handed operation

Each piston is matched individually with its cylinder to close tolerances. A thin liquid film acts as a non-wearing seal that reduces friction, so dispensing is easy and convenient.

Dispensing sterile fluids

The instrument can be autoclaved at 121 °C and may be fitted with an optional microfilter to prevent contamination of the bottle contents. Sterile technique must be followed.

Serial dispensing

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

Dispensing sensitive reagents

The optional drying tube screws into the ventilation aperture at the rear of the instrument. Filled with a suitable absorbing agent, it can protect sensitive reagents against humidity or CO_2.

General features of the Dispensette® bottle-top dispenser

- Dispensing directly from the supply bottle
- Easy to dismantle for cleaning
- Replaceable filling valves
- Autoclavable at 121 °C
- Conformity certified
- Easy to calibrate and adjust in order to comply with ISO 9001 and GLP guidelines. A positive indicator automatically indicates adjustment from factory settings.

Dispenser Selection Chart

Reagent	Disp. III	Disp. Organic
Acetaldehyde	+	+
Acetic acid (glacial), 100%	+	+
Acetic acid, 96%	+	+
Acetic anhydride		+
Acetone	+	+
Acetonitrile	+	+
Acetophenone		+
Acetyl chloride		+
Acetylacetone	+	+
Acrylic acid	+	+
Acrylonitrile	+	+
Adipic acid	+	
Allyl alcohol	+	+
Aluminium chloride	+	
Amino acids	+	
Ammonia, 20%	+	+
Ammonia, 20-30%		+
Ammonium chloride	+	
Ammonium fluoride	+	
Ammonium sulfate	+	
n-Amyl acetate	+	+
Amyl alcohol (Pentanol)	+	+
Amyl chloride (Chloropentane)		+
Aniline	+	+
Barium chloride	+	
Benzaldehyde	+	+
Benzene (Benzol)	+	+
Benzine (Gasoline)		+
Benzoyl chloride	+	+
Benzyl alcohol	+	+
Benzylamine	+	+
Benzylchloride	+	+
Boric acid, 10%	+	+
Bromobenzene	+	+
Bromonaphthalene	+	+
Butanediol	+	+
1-Butanol	+	+
n-Butyl acetate	+	+
Butyl methyl ether	+	+
Butylamine	+	+
Butyric acid	+	+
Calcium carbonate	+	
Calcium chloride	+	
Calcium hydroxide	+	
Calcium hypochlorite	+	
Carbon tetrachloride		+
Chloro naphthalene	+	+
Chloroacetaldehyde, 45%	+	+
Chloroacetic acid	+	+
Chloroacetone	+	+
Chlorobenzene	+	+
Chlorobutane	+	+
Chloroform		+
Chlorosulfonic acid		+
Chromic acid, 50%	+	+
Chromosulfuric acid	+	
Copper sulfate	+	
Cresol		+
Cumene (Isopropyl benzene)	+	+

Reagent	Disp. III	Disp. Organic
Cyclohexane		+
Cyclohexanone	+	+
Cyclopentane		+
Decane	+	+
1-Decanol	+	+
Dibenzyl ether	+	+
Dichloroacetic acid		+
Dichlorobenzene	+	+
Dichloroethane		+
Dichloroethylene		+
Dichloromethane		+
Diesel oil (Heating oil)		+
Diethanolamine	+	+
Diethyl ether		+
Diethylamine	+	+
1.2 Diethylbenzene	+	+
Diethylene glycol	+	+
Dimethyl sulfoxide (DMSO)	+	+
Dimethylaniline	+	
Dimethylformamide (DMF)	+	+
1.4 Dioxane		+
Diphenyl ether	+	+
Ethanol	+	+
Ethanolamine	+	+
Ethyl acetate	+	+
Ethyl methyl ketone	+	+
Ethylbenzene		+
Ethylene chloride		+
Fluoroacetic acid		+
Formaldehyde, 40%	+	
Formamide	+	+
Formic acid, 100%		+
Glycerol	+	+
Glycol (Ethylene glycol)	+	+
Glycolic acid, 50%	+	
Heating oil (Diesel oil)		+
Heptane		+
Hexane		+
Hexanoic acid	+	+
Hexanol	+	+
Hydriodic acid	+	+
Hydrobromic acid		+
Hydrochloric acid, 20%	+	+
Hydrochloric acid, 20-37 %		+
Hydrogen peroxide, 35%		+
Isoamyl alcohol	+	+
Isobutanol	+	+
Isooctane		+
Isopropanol (2-Propanol)	+	+
Isopropyl ether	+	+
Lactic acid	+	
Methanol	+	+
Methoxybenzene	+	+
Methyl benzoate	+	+
Methyl butyl ether	+	+
Methyl formate	+	+
Methyl propyl ketone	+	+
Methylene chloride		+
Mineral oil (Engine oil)	+	+

Reagent	Disp. III	Disp. Organic
Monochloroacetic acid	+	+
Nitric acid, 30%	+	+
Nitric acid, 30-70%		+ *
Nitrobenzene	+	+
Oleic acid	+	+
Oxalic acid	+	
n-Pentane		+
Peracetic acid		+
Perchloric acid	+	+
Perchloroethylene		+
Petroleum	+	+
Petroleum ether		+
Phenol	+	+
Phenylethanol	+	+
Phenylhydrazine	+	+
Phosphoric acid, 85%	+	+
Phosphoric acid, 85% + Sulfuric acid, 98%, 1:1	+	+
Piperidine	+	+
Potassium chloride	+	
Potassium dichromate	+	
Potassium hydroxide	+	
Potassium permanganate	+	
Propionic acid	+	+
Propylene glycol (Propanediol)	+	+
Pyridine	+	+
Pyruvic acid	+	+
Salicylaldehyde	+	+
Scintilation fluid	+	+
Silver acetate	+	
Silver nitrate	+	
Sodium acetate	+	
Sodium chloride	+	
Sodium dichromate	+	
Sodium fluoride	+	
Sodium hydroxide, 30%	+	
Sodium hypochlorite	+	
Sulfuric acid, 98%	+	+
Tartaric acid	+	
Tetrachloroethylene		+
Tetrahydrofuran (THF)		+
Tetramethylammonium hydroxide	+	
Toluene		+
Trichloroacetic acid		+
Trichlorobenzene		+
Trichloroethane		+
Trichloroethylene		+
Trichlorotrifluoro ethane		+
Triethanolamine	+	+
Triethylene glycol	+	+
Trifluoro ethane		+
Trifluoroacetic acid (TFA)		+
Turpentine		+
Urea	+	
Xylene		+
Zinc chloride, 10%	+	
Zinc sulfate, 10%	+	

* use ETFE/PTFE bottle adapter

Hydrofluoric acid (HF): Only the Dispensette® HF is specifically designed to dispense hydrofluoric acid (maximum permitted concentration 52%).

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 BRAND. Status as of: 06.10/9

Ordering Data

BRAND also offers an on-site **calibration service** (for more information, please see page 291).

Note:

When ordering instruments with DKD certificates, the prefix 'DKD' must be added to the order number, e.g., DKD 4700 321.

Items supplied:

Each Dispensette® bottle-top dispenser is conformity certified and supplied with performance certificate, discharge tube, telescoping filling tube, SafetyPrime™ recirculation valve (optional), mounting tool and adapters of polypropylene:

Dispensette® nominal volume, ml	Adapter for bottle thread	Filling tube length, mm
0.5	GL 22, GL 25, GL 28, GL 32	125-240
1, 2, 5, 10	GL 25, GL 28, GL 32, GL 38, S 40	125-240
25, 50, 100	GL 32, GL 38, S 40	170-330
10 (Dispensette® HF only)	GL 32 (ETFE), S 40 (PTFE)	125-240

Dispensette® III, Digital · Easy Calibration

Capacity ml	Subdivision ml	A* ≤ ± %	A* ≤ ± µl	CV* ≤ %	CV* ≤ µl	without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
0.2 - 2	0.01	0.5	10	0.1	2	4700 320	4700 321
0.5 - 5	0.02	0.5	25	0.1	5	4700 330	4700 331
1 - 10	0.05	0.5	50	0.1	10	4700 340	4700 341
2.5 - 25	0.1	0.5	125	0.1	25	4700 350	4700 351
5 - 50	0.2	0.5	250	0.1	50	4700 360	4700 361

Dispensette® III, Analog-adjustable

Capacity ml	Subdivision ml	A* ≤ ± %	A* ≤ ± µl	CV* ≤ %	CV* ≤ µl	without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
0.05 - 0.5	0.01	1.0	5	0.2	1	4700 100	4700 101
0.2 - 2	0.05	0.5	10	0.1	2	4700 120	4700 121
0.5 - 5	0.1	0.5	25	0.1	5	4700 130	4700 131
1 - 10	0.2	0.5	50	0.1	10	4700 140	4700 141
2.5 - 25	0.5	0.5	125	0.1	25	4700 150	4700 151
5 - 50	1.0	0.5	250	0.1	50	4700 160	4700 161
10 - 100	1.0	0.5	500	0.1	100	4700 170	4700 171

Dispensette® III, Fixed-volume

Capacity ml	A* ≤ ± %	A* ≤ ± µl	CV* ≤ %	CV* ≤ µl	without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
1	0.5	5	0.1	1	4700 210	4700 211
2	0.5	10	0.1	2	4700 220	4700 221
5	0.5	25	0.1	5	4700 230	4700 231
10	0.5	50	0.1	10	4700 240	4700 241
Special fixed volumes: 0.5-100 ml (please state when ordering)					4700 290	4700 291

* Calibrated to deliver (TD, Ex). 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 8655-5. Conformity certified to DIN 12600. A = Accuracy, CV = Coefficient of variation

Dispensette® Organic, Digital · Easy Calibration

Capacity ml	Subdivision ml	A* ≤ ± %	A* ≤ ± µl	CV* ≤ %	CV* ≤ µl	without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
0.5 - 5	0.02	0.5	25	0.1	5	4730 330	4730 331
1 - 10	0.05	0.5	50	0.1	10	4730 340	4730 341
2.5 - 25	0.1	0.5	125	0.1	25	4730 350	4730 351
5 - 50	0.2	0.5	250	0.1	50	4730 360	4730 361

Dispensette® Organic, Analog-adjustable

Capacity ml	Subdivision ml	A* ≤ ± %	A* ≤ ± µl	CV* ≤ %	CV* ≤ µl	without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
0.5 - 5	0.1	0.5	25	0.1	5	4730 130	4730 131
1 - 10	0.2	0.5	50	0.1	10	4730 140	4730 141
2.5 - 25	0.5	0.5	125	0.1	25	4730 150	4730 151
5 - 50	1.0	0.5	250	0.1	50	4730 160	4730 161
10 - 100	1.0	0.5	500	0.1	100	4730 170	4730 171

Dispensette® Organic, Fixed-volume

Capacity ml	A* ≤ ± %	A* ≤ ± µl	CV* ≤ %	CV* ≤ µl	without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
5	0.5	25	0.1	5	4730 230	4730 231
10	0.5	50	0.1	10	4730 240	4730 241
Special fixed volumes: 2-100 ml (please state when ordering)					4730 290	4730 291

Dispensette® HF, Analog-adjustable

Capacity ml	Subdivision ml	A* ≤ ± %	A* ≤ ± µl	CV* ≤ %	CV* ≤ µl	without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
1 - 10	0.2	0.5	50	0.1	10	4700 040	4700 041

* Calibrated to deliver (TD, Ex). 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 8655-5. Conformity certified to DIN 12600. A = Accuracy, CV = Coefficient of variation

Accessories and Spare Parts

(Other spare parts and accessories can be found in the operating manual.)

Discharge tubes with integrated valve

Pack of 1.

Description	Nominal volume ml	Shape	Length mm	Cat. No.
■ for Dispensette® III	0.5, 1, 2, 5, 10	fine tip	90	7079 15
	5, 10	standard	90	7079 16
	25, 50, 100	standard	120	7079 17
	25, 50, 100	fine tip	120	7079 18
■ for Dispensette® Organic	0.5, 1, 2, 5, 10	fine tip	90	7079 35
	5, 10	standard	90	7079 36
	25, 50, 100	standard	120	7079 37
	25, 50, 100	fine tip	120	7079 38
■ for Dispensette® HF	10	standard	90	7079 19

SafetyPrime™ recirculation valves

Pack of 1.

Description	Cat. No.
■ for Dispensette® III 1-100 ml	7060 80
■ for Dispensette® III 0.5 ml	7060 81
■ for Dispensette® Organic	7060 90
■ for Dispensette® HF	7060 85

Bottle adapters

For Dispensette®, Titrette®, seripettor® and QuikSip™.

PP or ETFE. Adapters of ETFE offer higher chemical resistance. Pack of 1.

Outer thread	for bottle thread/ ground joint	Material	Cat. No.
GL 32	GL 22	PP	7043 22
GL 32	GL 25	PP	7043 25
GL 32	GL 28	PP	7043 28
GL 32	GL 30	PP	7043 30
GL 32	GL 45	PP	7043 45
GL 45	GL 32	PP	7043 96
GL 45	GL 35	PP	7044 31
GL 45	GL 38	PP	7043 97
GL 45	S* 40	PP	7043 43
S* 40	S* 60	PE	7043 48
GL 32	GL 25	ETFE	7043 75
GL 32	GL 28	ETFE	7043 78
GL 32	GL 30	ETFE	7043 80
GL 32	GL 45	ETFE	7043 95
GL 45	GL 32	ETFE	7043 98
GL 45	GL 38	ETFE	7043 99
GL 45	S* 40	PTFE	7043 91
GL 32	NS 19/26	PP	7044 19
GL 32	NS 24/29	PP	7044 24
GL 32	NS 29/32	PP	7044 29

* buttress thread

Discharge tube with Luer-Lock attachment for micro filter

FEP/PP.
Pack of 1.

Cat. No.	7079 28*

* not suitable for HF and Peroxide

Threaded bottles, coated and uncoated, you can find on page 249.

Telescoping filling tubes

FEP. Adjusts to various bottle heights.
Pack of 1.

Nominal volume ml	Outer Ø mm	Length mm	Cat. No.
0.5, 1, 2, 5, 10	6	70-140	7042 02
		125-240	7042 03
		195-350	7042 08
		250-480	7042 01
25, 50, 100	7.6	170-330	7042 04
		250-480	7042 05

Flexible discharge tubing

PTFE, coiled, length 800 mm, with safety handle.
Pack of 1.

Nominal volume ml	Discharge tube Outer Ø mm	Inner Ø mm	Cat. No.
1, 2, 5, 10	3	2	7079 25*
25, 50, 100	4.5	3	7079 26*

* not suitable for HF and Peroxide

Filling valve with sealing washer

Pack of 1.

Description	Nominal volume ml	Cat. No.
for Dispensette® III, Dispensette® Organic	0.5, 1, 2, 5, 10	6697
for Dispensette® III, Dispensette® Organic	25, 50, 100	6698
for Dispensette® HF	10	6699

Filling valve with olive-shaped nozzle

For frequent autoclaving with the filling tube mounted, this filling valve with tube nozzle is recommended.
Pack of 1.

Description	Nominal volume ml	Cat. No.
for Dispensette® III, Dispensette® Organic	0.5, 1, 2, 5, 10	6637*
for Dispensette® III, Dispensette® Organic	25, 50, 100	6638

* Olive-shaped nozzle made of PEEK: Observe limited chemical resistance of PEEK!

Seals

PTFE. Spare seals for discharge tube, SafetyPrime™ and filling valve.
Pack of 5 each type.

Cat. No.	6696

Closure Set

For sensitive reagents (PP air vent cap and stopper with Luer-cone, PTFE-sealing ring). Pack of 1.

Cat. No.	7044 86

Air vent cap for micro filter with Luer-cone

PP. Air vent cap and PTFE-sealing ring.
Pack of 1 each.

Cat. No.	7044 95

Drying tube

Drying tube and seal, without drying agent. Pack of 1.

Cat. No.	7079 30

Remote Dispensing System for Drum Dispensing

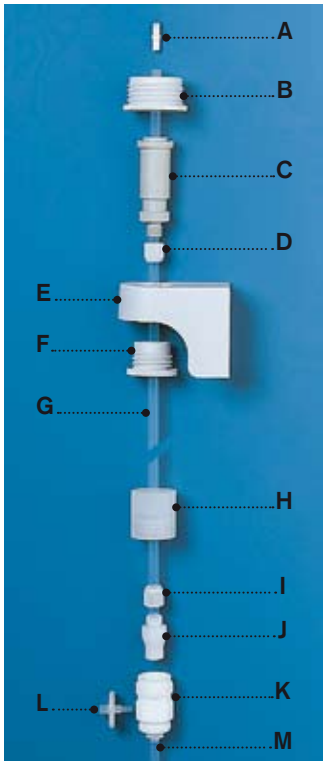
for Dispensette® III and Dispensette® Organic

- Dispense accurate volumes directly from drums and bulk refills
- The Dispensette® can be mounted on a wall, a ring stand or on lab furniture
- A filter in the drum adapter minimizes risk of contaminating high-purity reagents
- A quick-release connector with integrated valves allows quick changing of the bulk container
- The remote dispensing system allows storage of the drum up to 10 meters (30 feet) away from the Dispensette®. The max. delivery height is approximately 1.2 m.

Standard supply:

without Dispensette®, for drums with 3/4" inner thread, consisting of:

A) Plug-in adapter, PTFE (only for Dispensettes ≤ 10 ml)
B) Thread adapter, PP (GL 45/32)
C) Strain relief, PP
D) Locking screw, PP
E) Wall mounting unit, PP
F) Thread adapter, PP (GL 32/28)
G) Filling tube, FEP, 3 m, outer Ø 7.6 mm
H) Mounting screw, PP
I) Locking screw, PP
J) Coupling, ETFE, with ball valve
K) Drum adapter, PTFE, for drums with inner-thread of 3/4", with ball valve (incl. closure cap)
L) Membrane filter, 3 µm, non-sterile
M) Filling tube, 0.47 m, outer Ø 6.9 mm



Cat. No.	7042 61

* not suitable for HF and Peroxide

Note:
Observe all Safety Instructions, Operating Exclusions and Limitations of the Dispensette® III and the Dispensette® Organic.

Operating Exclusions

Never use the remote dispensing system:

1. with SafetyPrime™ recirculation valve. It has to be removed before use!
2. for pressurized vessels
3. for liquids attacking borosilicate glass, Al_2O_3-ceramic, PFA, ETFE, FEP or PTFE
4. for Peroxide (due to catalytic reaction)
5. for carbon disulfide (CS_2), due to risk of explosion!

Accessories

Description	Dimensions	Cat. No.
Filling tube, FEP	10 m, outer Ø 7.6 mm	7042 67
Filling tube, FEP	1 m, outer Ø 6.9 mm	7042 69
Filling tube, FEP	1.4 m, outer Ø 6.0 mm	7042 09
Filling tube, FEP	1.5 m, outer Ø 7.6 mm	7042 10
Thread adapter, steel	outer thread 2", inner thread 3/4"	7042 70
Thread adapter, PTFE, for direct mounting of Dispensette® on drum	outer thread 3/4", outer thread GL 32	7042 81
Thread adapter, PTFE, to connect remote dispensing system with drums with GL outer thread	inner thread 3/4", inner thread GL 32	7042 82
Support rod connector for wall mounting unit		7042 68
Shelf clamp for wall mounting unit		7042 72

Support rod connector

Shelf clamp