

Dispensing/Bottletop dispensers-Titration/Burettes



1 Dispensers, bottle-top, Dispensette® III, accessories

Amber soda-lime glass. With PP screw cap and PE-LD pouring ring. Reservoir bottles. Space-saving, square design, except 2500ml reservoir which is cylindrical.

BRAND

Capacity ml	Neck thread GL	Width mm	Height mm	PK	Cat. No.
100	32	50	125	1	9.284 541
250	32	65	160	1	9.284 542
500	32	80	195	1	9.284 543
1000	45	95	230	1	9.284 544
2500*	45	140	300	1	9.284 545

* cylindrical design



2 Burettes, with straight stopcock, Class AS

NEW!

Isolab

Borosilicate glass 3.3
With Klasse AS, conformity certified, with batch identification, blue graduations, DIN EN 385.
PTFE spindle.

Capacity ml	Grad. ml	Tolerance ± ml	Description	PK	Cat. No.
10	0,02	0,020	with Schellbach line	1	4.008 311
25	0,05	0,030	with Schellbach line	1	9.270 100
50	0,10	0,050	with Schellbach line	1	9.270 101
10	0,02	0,020	without Schellbach line	1	9.270 102
25	0,05	0,030	without Schellbach line	1	9.270 103
50	0,10	0,050	without Schellbach line	1	9.270 104

6 Burettes, with straight stopcock, DURAN®, Class AS

Hirschmann

Schellbach line for easier reading, conformity certified, with dated batch identification, high-contrast blue graduations, ring graduation at major subdivisions, EX (TD) calibrated, acc. to DIN 12700 T2. Scale length approx. 500mm. The batch certificate is available to download from the manufacturer's website.

Capacity ml	Grad. ml	Tolerance ± ml	Stopcock with	PK	Cat. No.
10	0.02	0.02	Glass key	1	9.270 161 3
25	0.05	0.05	Glass key	1	9.270 162
50	0.1	0.1	Glass key	1	9.270 163
10	0.02	0.02	PTFE spindle	1	9.270 164 4
25	0.05	0.05	PTFE spindle	1	9.270 165
50	0.1	0.1	PTFE spindle	1	9.270 166
10	0.02	0.02	PTFE key	1	9.270 167 5
25	0.05	0.05	PTFE key	1	9.270 168
50	0.1	0.1	PTFE key	1	9.270 169



9.270 161



9.270 164



9.270 167



1 Burettes, with straight stopcock, DURAN®, Class AS

BLAUBRAND®, DIN EN ISO 385.

BRAND

Conformity certified. Calibrated to deliver (TD, Ex). Schellbach stripe. Length approx. 800mm. Ring graduations at major subdivisions. Marks and inscriptions in high contrast blue enamel. With batch number and one batch certificate per pack included. Also available with individual works, USP or DKD calibration certificate, please enquire.

The batch certificate is also available to download from the manufacturer's website.



Capacity	Grad.	Tolerance	Stopcock with	PK	Cat. No.
ml	ml	± ml			
10	0.02	0.02	PTFE spindle	1	9.270 115
25	0.05	0.03	PTFE spindle	1	9.270 116
50	0.1	0.05	PTFE spindle	1	9.270 117
10	0.02	0.02	Glass key	1	9.270 118
25	0.05	0.03	Glass key	1	9.270 119
50	0.1	0.05	Glass key	1	9.270 120

2 3 4 Burettes, with lateral stopcock, DURAN®, Class AS

With Schellbach stripe. Conformity certified, with dated batch certificate, highly contrasting blue graduations, ring marks at main graduation points and lateral glass stopcock with choice of glass or PTFE spindle keys. To DIN EN ISO 385. Scale length approx. 500mm. The batch certificate is available to download from the manufacturer's website.

Hirschmann

Capacity	Grad.	Tolerance	Stopcock with	PK	Cat. No.
ml	ml	± ml			
10	0.02	0.02	Glass key	1	9.270 155
25	0.05	0.03	Glass key	1	9.270 156
50	0.1	0.05	Glass key	1	9.270 157
10	0.02	0.02	PTFE spindle	1	9.270 158
25	0.05	0.03	PTFE spindle	1	9.270 159
50	0.1	0.05	PTFE spindle	1	9.270 160





1 Burettes, with lateral stopcock, DURAN®, Class AS

BLAUBRAND®. DIN EN ISO 385.

BRAND

Conformity certified. With batch number. Graduations and inscriptions in highly contrasting blue enamel. With Schellbach stripe. Length approx. 800mm. Calibrated to deliver. All BLAUBRAND® burettes are delivered with batch number and one batch certificate included per manufacturer's pack. Also available with individual works, USP or DKD calibration certificate, please enquire. The batch certificate is also available to download from the manufacturer's website.

Capacity	Grad.	Tolerance	Stopcock with	PK	Cat. No.
ml	ml	± ml			
10	0.02	0.02	PTFE spindle	1	9.270 144
25	0.05	0.03	PTFE spindle	1	9.270 147
50	0.1	0.05	PTFE spindle	1	9.270 148
10	0.02	0.02	Glass key	1	9.270 121
25	0.05	0.03	Glass key	1	9.270 122
50	0.1	0.05	Glass key	1	9.270 125

Automatic burettes, Schilling pattern, Borosilicate glass 3.3, PE-LD

NEW!

- Described as automatic burettes with fast titration and practical usage.
- Especially suitable for field analysis where there is a risk of breaking.
- The entire system consists of a burette tubing with automatic zeroing system together with a valve stopcock, a reservoir bottle and a bottle stand.
- Rapid filling by squeezing the bottle and fast titration by valve stopcock
- Inscriptions and graduations are printed either with blue enamel or with white enamel which is specially designed for glass use.
- Clear burettes are manufactured with schellbach stripe.
- Amber burettes are manufactured without schellbach stripe.
- 10ml burette has a polyethylene reservoir bottle of 500ml volume whereas 25 and 50ml burettes are used with bottles of 1000ml volume.

Isolab

Capacity	Grad.	Tolerance	Description	PK	Cat. No.
ml	ml	± ml			
10	0,02	0,020	clear glass, schellbach, blue graduated	1	4.008 314 2
25	0,05	0,030	clear glass, schellbach, blue graduated	1	6.241 904
50	0,10	0,050	clear glass, schellbach, blue graduated	1	4.008 315
10	0,02	0,020	amber, without schellbach, white graduated	1	4.008 316 3
25	0,05	0,030	amber, without schellbach, white graduated	1	4.008 317
50	0,10	0,050	amber, without schellbach, white graduated	1	4.008 318



4.008 314



4.008 316

1 Automatic burettes, Schilling pattern, blue graduated, DURAN®

Hirschmann

With Schellbach line for easier reading, fast-flow burette, with 500ml plastic reservoir bottle (for burettes up to 10ml) or 1000ml (for burettes 15ml and larger). Scale length approx. 330mm, for 50ml capacity approx. 550mm.

Capacity	Grad.	Tolerance	Bottle size	PK	Cat. No.
ml	ml	± ml	ml		
5	0,05	0,03	500	1	6.070 009
10	0,05	0,03	500	1	7.510 426
15	0,1	0,045	1000	1	6.223 256
25	0,1	0,045	1000	1	7.510 427
50	0,1	0,075	1000	1	6.070 072



2 Automatic burettes, Schilling pattern, AR® soda-glass, PE-LD, class B

NEW!

BRAND

SILBERBRAND.

Tolerances to class B, DIN EN ISO 385. AR soda-glass burette®. PVC filling tube and silicone outlet tubing. PE-LD reservoir bottle with PE-HD base. Brass/PP micrometer screw. Graduations and inscriptions are in highly contrasting black enamel. With Schellbach stripes.

Squeezing of bottle allows rapid filling. Fine titration is easy using the micrometer screw. Coarse titration is achieved by removal of the micrometer screw and using the push button.

Calibrated to deliver.

Capacity	Grad.	Tolerance	Capacity	Height	PK	Cat. No.
ml	ml	± ml	ml	mm		
50**	0.1	0.1	1000	900	1	6.239 724
10*	0.05	0.05	500	530	1	9.271 053
15*	0.1	0.08	500	510	1	9.271 055
25*	0.1	0.08	1000	620	1	9.271 056
50*	0.1	0.1	1000	830	1	9.271 058

* Narrower divisions
**amber



3 Automatic burettes, Schilling pattern, borosilicate glass 3.3, PE-LD, class B

NEW!

VITLAB

Made of borosilicate glass 3.3. Class B. Conformity with DIN ISO 384. With Schellbach stripes (blue/white) and easily readable, black scaling. Calibrated to deliver, "Ex".

Automatic zeroing. The burette stopcock is made of high quality plastic. Its PTFE key turns easily and allows fine titration.

Special protection against breakage if the apparatus gets knocked over: A small bumper has been attached to the upper end of the upright measuring tube. This feature reduces the chance of breakage.

Material: burette of borosilicate glass 3.3, PP filling tube, PMP/PTFE burette stopcock, PE-LD reservoir bottle.



Burette capacity	Grad.	Tolerance	Bottle capacity	Height	Burette	PK	Cat. No.
ml	ml	± ml	ml	mm			
25	0.05	0.05	1000	900	with plastic coating	1	9.271 082
50	0.10	0.10	1000	900	with plastic coating	1	9.271 084
25	0.05	0.05	1000	900	without plastic coating	1	9.271 085
50	0.10	0.10	1000	900	without plastic coating	1	9.271 086



1 Titration apparatus type Schilling, borosilicate glass 3.3 opaque / PE-LD

NEW!

Amber borosilicate burette made of glass 3.3. Class B, for light sensitive substances. Conformity with DIN ISO 384. With easily readable black scaling. Calibrated to deliver ,Ex. Automatic zeroing. The stopcock of the burette is made of high quality plastic. Its PTFE key turns easily and allows fine titration. A small bumper has been attached to the upper end of the upright measuring tube. This feature reduces the chance of breakage.

VITLAB

Materials: burette of borosilicate glass 3.3, PP filling tube, PMP/PTFE burette stopcock, PE-LD reservoir bottle.

Burette capacity ml	Tolerance ± ml	Grad. ml	Bottle capacity ml	Height mm	PK	Cat. No.
25	0.05	0,05	1000	900	1	9.271 087
50	0.10	0.10	1000	900	1	9.271 088



2 Automatic burettes, borosilicate glass 3.3, class AS

NEW!

Supplied with an automatic zeroing system, VALVE stopcock and also an intermediate PTFE stopcock to recirculate the residual liquid. Inscriptions and graduations are printed either with blue enamel or amber stain diffusion ink. Clear burettes are manufactured with schellbach stripe. Other technical specifications are exactly the same as other types of burettes.

Isolab

Capacity ml	Graduations ml	Tolerance ± ml	PK	Cat. No.
10	0,02	0,020	1	4.008 312
25	0,05	0,030	1	6.241 216
50	0,10	0,050	1	6.237 627



3 Automatic burettes, borosilicate glass 3.3, class AS, amber

NEW!

Supplied with an automatic zeroing system, VALVE stopcock and also an intermediate PTFE stopcock to recirculate the residual liquid. Inscriptions and graduations are printed either with blue enamel or amber stain diffusion ink. Clear burettes are manufactured with schellbach stripe. Other technical specifications are exactly the same as other types of burettes.

Isolab

Capacity ml	Graduations ml	Tolerance ± ml	PK	Cat. No.
10	0,02	0,020	1	6.238 473
25	0,05	0,030	1	6.242 463
50	0,10	0,050	1	6.241 116

1 Compact automatic burettes with glass bottle SILBERBRAND

NEW!

The Modular Automatic Burette Concept. Fast to dismantle and easy to clean. Easy to repair - all individual components replaceable. AR-Glas®, detachable PTFE stopcock. Error limits according to class B, DIN EN ISO 385. Calibrated to deliver (TD, Ex).

BRAND

Items supplied:

Burette tube with Schellbach stripe and automatic zeroing, stopcock with precision tip, filling tube (PVC, transparent), pumphead and 2000ml bottle (soda-lime glass).

Capacity	Graduations	Tolerance	Length	PK	Cat. No.
ml	ml	± ml	mm		
10*	0.05	0.05	455	1	4.007 841
25*	0.1	0.08	520	1	4.007 842
50*	0.1	0.10	730	1	4.007 843

* reduced distance between subdivision marks



2 Compact automatic burettes with glass bottle BLAUBRAND®

NEW!

The Modular Automatic Burette Concept! Fast to dismantle and easy to clean. Easy to repair - all individual components replaceable! Class AS, conformity certified DURAN®, detachable PTFE stopcock. DIN EN ISO 385. Calibrated to deliver (TD, Ex). All BLAUBRAND® automatic burettes are supplied with a batch number and an accompanying batch certificate in the original packaging. On request, they are available also with an individual certificate, USP individual certificate or DKD calibration certificate.

BRAND

Items supplied:

Burette tube with Schellbach stripe and automatic zeroing, stopcock with precision tip, filling tube (PVC, transparent), pumphead und 2000 ml bottle (soda-lime glass).

Capacity	Graduations	Tolerance	Length	PK	Cat. No.
ml	ml	± ml	mm		
10	0.02	0.02	775	1	4.007 844
25	0.05	0.03	785	1	4.007 845
50	0.1	0.05	790	1	4.007 846



3 Compact automatic burettes with glass bottle, amber, SILBERBRAND

NEW!

The Modular Automatic Burette Concept! Fast to dismantle and easy to clean. Easy to repair - all individual components replaceable! Borosilicate glass 5.4, detachable PTFE stopcock. Calibrated to deliver (TD, Ex). 25ml: Error limit according to class B, DIN EN ISO 385. 50ml: DIN EN ISO 385, class B.

BRAND

Items supplied:

Burette tube with white graduation and automatic zeroing, stopcock with precision tip, filling tube (PVC, transparent), pumphead und 2000ml bottle (soda-lime glass).

Capacity	Graduations	Tolerance	Length	PK	Cat. No.
ml	ml	± ml	mm		
25*	0.1	0.08	495	1	4.007 847
50	0.1	0.10	780	1	4.007 848

* reduced distance between subdivision marks





1 Compact automatic burettes with PE-bottle BLAUBRAND®

NEW!

The Modular Automatic Burette Concept! Fast to dismantle and easy to clean. Easy to repair - all individual components replaceable! Class AS, conformity certified DURAN®, detachable PTFE stopcock. DIN EN ISO 385. Calibrated to deliver (TD, Ex). All BLAUBRAND® automatic burettes are supplied with a batch number and an accompanying batch certificate in the original packaging. On request, they are available also with an individual certificate, USP individual certificate or DKD calibration certificate.

BRAND

Items supplied

Burette tube with Schellbach stripe and automatic zeroing, stopcock with precision tip, filling tube (PVC, transparent) and 1000 ml PE-bottle with base.

Capacity	Grad.	Tolerance	Length	PK	Cat. No.
ml	ml	± ml	mm		
10	0.02	0.02	775	1	6.238 953
25	0.05	0.03	785	1	9.271 020
50	0.1	0.05	790	1	9.271 021



2 Compact automatic burettes amber with PE-bottle SILBERBRAND

NEW!

The Modular Automatic Burette Concept! Fast to dismantle and easy to clean. Easy to repair - all individual components replaceable! Borosilicate glass 5.4, detachable PTFE stopcock. Calibrated to deliver (TD, Ex). 25ml: Error limit according to class B, DIN EN ISO 385, class B. 50ml: DIN EN ISO 385, class B.

BRAND

Items supplied:

Burette tube with white graduation and automatic zeroing, stopcock with precision tip, filling tube (PVC, transparent) and brown 1000ml PE-bottle with base.

Capacity	Grad.	Tolerance	Length	PK	Cat. No.
ml	ml	± ml	mm		
25 *	0.1	0.08	495	1	9.271 022
50	0.1	0.1	780	1	9.271 023

* reduced distance between subdivision marks



Accessories for compact automatic burette

NEW!

Pump head for glass reservoir bottle.
DURAN®. NS 29/32. Fitting length 185mm. Nozzle outer Ø 7mm.

BRAND

Description	PK	Cat. No.
Clear	1	4.007 839 1
Amber	1	4.007 840 2



4.007 839

4.007 840

3 Automatic burettes, Pellet pattern, DURAN®, class AS

Conformity certified, with dated batch identification, Schellbach line for easier reading, high-contrast blue graduations, ring marks at major graduation points, lateral stopcock with PTFE key, EX (TD) calibrated, acc. to DIN EN ISO 385 and supplied with 2 litre clear glass reservoir bottle. Scale length approx. 500mm. Hirschmann supplies class A or AS volumetric glassware batch and production year indicators as standard, at no additional charge. Therefore these measuring instruments are suitable for the use in labs certified acc. to DIN EN ISO. The batch certificate is available to download from the supplier's website.

Hirschmann

Capacity	Grad.	Tolerance	PK	Cat. No.
ml	ml	± ml		
10	0.02	0.02	1	6.079 718
25	0.05	0.03	1	7.630 409
50	0.1	0.05	1	9.270 785



4 Automatic burettes, Pellet pattern, DURAN® Class AS

BLAUBRAND®, Class AS, to DIN EN ISO 385. DURAN®. With intermediate stopcock. Conformity certified. With batch number. Graduations and inscriptions in highly contrasting blue enamel. With Schellbach stripes. Intermediate stopcock allows residual reagent in the burette after titration to be recycled into the reservoir. Automatic zero point setting. Calibrated to deliver. Choice of models, either with screwthread PTFE screwthread dispensing stopcock with PTFE spindle and PTFE plug key intermediate stopcock, or glass key stopcocks for both.

BRAND

Complete with 2 litre, soda-lime glass reservoir (160mm dia. x 200mm height, with 29/32 ground glass neck). Overall height with bottle approx. 1m.
All BLAUBRAND® burettes are delivered with batch number and one batch certificate included per pack.
Also available with individual works, USP or DKD calibration certificate, please enquire.
The batch certificate is also available to download from the manufacturer's website.

Capacity	Grad.	Tolerance	Stopcock	PK	Cat. No.
ml	ml	± ml			
10	0.02	0.02	PTFE	1	9.270 764
25	0.05	0.03	PTFE	1	9.270 767
50	0.1	0.05	PTFE	1	9.270 768
10	0.02	0.02	Glass	1	9.270 734
25	0.05	0.03	Glass	1	9.270 737
50	0.1	0.05	Glass	1	9.270 738





1 Automatic burettes, Pellet pattern, borosilicate glass 5.4, class B

Amber borosilicate glass type 5.4.SILBERBRAND. With intermediate stopcock. BRAND

25ml: Class B, Tolerance to DIN EN ISO 385.

50ml: Class B, to DIN EN ISO 385.

Automatic zero point setting. Graduations and inscriptions in white enamel. Intermediate stopcock for evacuation of remaining liquid. Calibrated to deliver. Choice of models, either with PTFE or glass key dispensing and intermediate stopcocks. Complete with 2-litre soda-lime glass reservoir (160mm dia. x 200mm height, with 29/32 ground glass neck). Overall height with bottle approx. 1m.

Capacity	Grad.	Tolerance	Keys	PK	Cat. No.
ml	ml	± ml			
25*	0.1	0.08	Glass	1	9.270 536
50	0.1	0.1	Glass	1	9.270 538
25*	0.1	0.08	PTFE	1	9.270 540
50	0.1	0.1	PTFE	1	9.270 542

* Narrower divisions.



6.237 628



6.238 474

Bottle for automatic burettes, amber or clear glass

NEW!

- Clear bottle for automatic burettes is made from heat resistant glass. Each bottle has a NS 29/32 neck grinding that fits to burette. Total volume capacity of the bottle is 2000ml. Isolab

- Amber bottle for automatic burettes is made from heat resistant glass. Each bottle has a NS 29/32 neck grinding that fits to burette. Total volume capacity of the bottle is 2000ml.

Description	PK	Cat. No.
clear bottle	1	6.237 628 2
amber bottle	1	6.238 474 3



4 Burette reservoir bottles

Choice of DURAN® or soda-lime glass. With NS29/32 ground neck. DIN12643.

DURAN Group

Capacity	Dia.	Height	Material	Colour	PK	Cat. No.
ml	mm	mm				
1000	110	200	soda-lime glass	clear	1	9.270 905
1000	110	200	soda-lime glass	amber	1	9.270 915
2000	160	200	DURAN®	clear	1	9.270 910
2000	160	200	DURAN®	amber	1	9.270 920

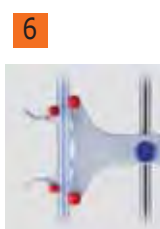


5 Spare reservoir bottles, glass

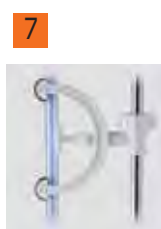
NEW!

Duran® Available in clear glass or amber glass or soda-lime glass. Volume: 2000ml, diameter: 160mm, height: 200mm. BRAND

Material	Grinding	Description	PK	Cat. No.
Duran®	NS 29/32	clear	1	6.018 346
Duran®	NS 29/32	amber	1	6.018 347
Soda-lime glass	NS 29/32	clear	1	7.059 541
Soda-lime glass	NS 29/32	amber	1	7.400 768



4.008 313



6.240 474

Burette clamp

NEW!

- Metal burette clamps are made out of steel and can hold one burette at a time. Graduations and meniscus line of the burette are clearly visible. They can be used on support rods of 8-14mm diameter.

- Polypropylene burette clamp can hold one burette at a time. Graduations and meniscus line of the burette are clearly visible. They can be used on support rods of 10-12mm diameter.

Description	PK	Cat. No.
Burette clamp, metal	1	4.008 313 6
Burette clamp, PP	1	6.240 474 7

1 Rubber blowballs

Non-rigid PVC. Red-brown, smooth. With 6mm i.d. outlet hole.

Type	Capacity ml	Dia. mm	PK	Cat. No.
B oval	5	30	1	9.115 404
0	10	30	1	9.115 411
2	28	42	1	9.115 430
3	42	48	1	9.115 450
5	90	62	1	9.115 480
7	145	72	1	9.115 485
9	225	84	1	9.115 487

**2 Orsat blowball**

Natural rubber. Translucent.

Type	PK	Cat. No.
Orsat blowball	1	9.115 510

**3 Hand bellows**

Single spray. Without net.
Size 3.

Type	PK	Cat. No.
Hand bellows	1	9.270 995

**4 Hand bellows**

Burette bellow for automatic burettes is made out of best quality natural rubber.

Type	PK	Cat. No.
Burette below	1	6.237 629

NEW!**5 Hand bellows**

Double spray. With net.
Size 3.

Type	PK	Cat. No.
Hand bellows	1	9.270 990





1 Bottle top burette Titrette®

NEW!

BRAND

Titrette® - The next generation digital burette!

With the Titrette® bottle-top burette, you can titrate quickly and reliably with highest precision, even in close quarters, with no mains supply needed - in the lab, in production, or in the field!

High accuracy

- precise titration within the error limits of Class A for glass burettes

Smooth-running operation

- for sensitive, drop-wise titration

Compact design

- light and stable

Easy Handling

- no switching between "fill" and "titrate"

Simple maintenance

- cleaning and parts replacement right in the lab

- Titrette® SH to determinate the acid content of milk and liquid dairy according to Soxhlet-Henkel ($4^{\circ}\text{SH} = 1\text{ml}$)

Smooth operation

The large, easy-grip hand wheels are conveniently easy to turn. With the optimized gear ratio, you can fill the device quickly and titrate drop-wise with great sensitivity.

Class? Like Class A!

The Titrette® bottle-top burette has an innovative new measuring system which matches the Class A accuracy of glass burettes and, if needed, can offer the precision of 3 decimal places below 20ml. This is an important feature for users who need to work within the Class A error limits as with glass burettes according to DIN EN ISO 385 (e.g., pharmaceutical work):

Lightweight and compact!

All components only move within the housing, saving room on top. The compact design and the light weight ensure good stability. The titrating tube can be adjusted horizontally and vertically. This provides flexibility when positioning the instrument, e.g., when using a magnetic stirrer or different bottle sizes.

Items supplied:

Titrette® bottle-top burette, conformity certified, performance certificate, telescoping filling tube (170 to 330 mm), recirculation tube, 2 x 1.5V batteries (AAA/UM4/LR03), 3 x PP bottle adapters PP (GL45/32, GL 45/S40 and GL32/NS 29/32), 2 coloured light shield inspection windows, operating manual.

Capacity ml	Accuracy $\leq \pm A\%$ (max. vol.)	Reproducibility $\leq \pm V\%$ (max. vol.)	Interface	PK	Cat. No.
$^{\circ}\text{SH}$ (25)	0.07	0.025	without	1	4.007 918
25	0.07	0.025	without	1	9.271 332
50	0.06	0.02	without	1	9.271 333
25	0.07	0.025	incl.	1	9.271 334
50	0.06	0.02	incl.	1	9.271 335

Accessories for Titrette®

Dispensing cylinder with valve head

BRAND

For	PK	Cat. No.
Titrette® 25ml	1	4.000 395
Titrette® 50ml	1	4.000 396

Accessories for Titrette®

Dispensing cylinder with valve head.

BRAND

For	PK	Cat. No.
Titrette® 25 ml	1	4.000 397
Titrette® 50 ml	1	4.000 398

Accessories for Titrette®

Filling valve with olive-shaped nozzle and sealing ring.

BRAND

Type	PK	Cat. No.
Filling valve	1	9.284 482

Accessories for Titrette®

Inspection windows. For protection of light-sensitive media, the clear inspection windows can be replaced with amber coloured windows (included). BRAND

Length mm	PK	Cat. No.
Inspection window, brown	1	4.000 394

Accessories for Titrette®

Titration tube with screw cap and integrated discharge and recirculation valve. BRAND

Type	PK	Cat. No.
Titration tube	1	4.000 393

Accessories for Titrette®

Telescopic filling tubes, FEP. Adjust easily to different size bottles, without measuring or cutting. BRAND

Length mm	PK	Cat. No.
170 to 330	1	9.284 503
250 to 480	1	9.284 504

1 Automatic burettes, Pellet pattern, DURAN®, class AS, stopcock with glass key

Conformity certified, with dated batch identification, Schellbach line for easier reading, high-contrast blue graduations, ring mark at main graduation points, intermediate stopcock with glass key, lateral stopcock with glass key, EX (TD) calibrated, acc. to DIN EN ISO 385. Supplied with 2 litre, clear glass reservoir bottle. Scale length approx. 500mm. Hirschmann supplies class A or AS volumetric glassware with batch and production year indicators as standard, at no additional charge. Therefore these measuring instruments are suitable for the use in labs certified acc. to DIN EN ISO. The batch certificate is available to download from the supplier's website. Hirschmann

Capacity	Grad.	Tolerance	PK	Cat. No.
ml	ml	± ml		
10	0.02	0.02	1	6.079 157
25	0.05	0.03	1	6.056 580
50	0.1	0.05	1	6.079 156



2 Automatic burettes, Pellet pattern, DURAN®, class AS, stopcock with PTFE key

Conformity certified, with dated batch identification, Schellbach line for easier reading, high-contrast blue graduations, ring mark at main graduation points, lateral stopcock with PTFE key, EX (TD) calibrated, acc. to DIN EN ISO 385, with 2 litre, clear glass reservoir bottle as standard. Scale length approx. 500mm. Hirschmann supplies class A or AS volumetric glassware with batch and production year indicators as standard, at no additional charge. Therefore these measuring instruments are suitable for the use in labs certified acc. to DIN EN ISO. The batch certificate is available to download from the supplier's website. Hirschmann

Capacity	Grad.	Tolerance	PK	Cat. No.
ml	ml	± ml		
10	0.02	0.02	1	6.228 424
25	0.05	0.03	1	6.228 425
50	0.1	0.05	1	9.270 780





1 Manual titration station STI

The manual titration station STI consists of

- a burette with digital display and
- a magnetic stirrer with exactly fitting holder for a conical flask

A visual screen serves as a neutral background and enables the user to determine the colour change at the end of titration exactly. In this way he always carries out his titrations under similar optical conditions. This improves the accuracy and reproducibility of the results.

This is also aided by the exact positioning of the vessel in the holder on the upper side of the magnetic stirrer. The wings of the screen also protect against dazzle from the sides

Behr

Type	Description	PK	Cat. No.
STI	Manual titration station	1	9.843 772



2 Accessories and spare parts, solarus®

NEW!

Smart accessories for daily laboratory work.

Hirschmann

Description	PK	Cat. No.
Ejection unit, fine, standard	1	9.287 881
Ejection unit, flexible, spiral shaped, inner dia. 1.5mm	1	6.206 625
Ejection unit, titration, variable	1	9.287 882
Adapter with filler NS 12/21 for funnel	1	9.287 883
Ground adapter, silicone, A 45 compliant with NS 29/32	1	9.287 884

Digital burette, Titronic® universal

Motorised piston burette for precise fixed volume dispensing, with dispensing volume and speed adjustment, for incremental dispensing tasks with input of pause time between dispensing stages and for manual titration tasks. The Titronic® universal burette can be controlled directly from a PC via an RS232 interface. Several burettes can also be 'daisy chain' linked to each other. Thanks to the motor driven, 2/3-way valve, the Titronic® universal burette can be used with all standard laboratory aqueous and non-aqueous titration reagents and many other solutions.

SI Analytics GmbH

Titronic® universal, 20 ml, module I:

Supplied with: Titronic® universal 20 ml dispensing attachment, TZ 1503 titration tip, TZ 3665 support rod, TZ 3660 electrode/titration tip holder, TZ 3680 mini keyboard

Titronic® universal, 20 ml, module II:

Supplied with: as module I, but with additional TM 96 magnetic stirrer

Titronic® universal, 50 ml, module I:

Supplied with: see above 20ml, module I listing

Titronic® universal, 50 ml, module II:

Supplied with: as module I, but with TM 96 magnetic stirrer

1 Digital burette, Titronic® universal

SI Analytics GmbH

Specifications

Interfaces:	2 x RS232-C for connection to a serial printer, PC or other Titronic® universal
Stirrer connection:	piston burettes, plug-in connection with integral low-voltage power supply for TM 96 magnetic stirrer
Keyboard connection:	Operation via 6 instrument keys and TZ 3680 mini keyboard
Display:	4 digit LCD display
Volume indicator:	00.00 to 999.9ml
Display resolution:	0.01 ml
Dispensing speed:	0.1 to 40ml/min. (with 20ml dispensing unit) 0.1 to 100ml/min. (with 50ml dispensing unit)
Fill time:	30secs. to 99secs. adjustable (time depends on cylinder volume)
Pre-titration volume:	0.1 to 99.9ml
Pause time between increments:	0.01 to 999.9s
Dispensing cylinder:	20ml or 50ml DURAN® glass cylinder with UV protection sleeve
Burette resolution:	1/8000
Dispensing accuracy:	0.1% system measurement deviation, 0.05% accidental measurement deviation determined in accordance with EN ISO 8665, Part 3
Supply requirements:	230 V 50/60 Hz or 115 V 50/60 Hz
Conformity:	ISO 8665, Part 6
CE mark:	In accordance with European Council guidelines 89/336/EWG and 72/23/EWG



Type	Burette attachment ml	PK	Cat. No.
Module I	20	1	9.863 205
Module II	20	1	9.863 206
Module I	50	1	9.863 207
Module II	50	1	9.863 208

2 Digital Titrator, TitroLine easy

SI Analytics GmbH

Specifications

Conformity:	EN ISO 8665-3
Cylinder:	20ml DURAN® glass with UV protection
Valve:	Motor driven 3/2 way PTFE/ETFE valve
Tubing:	FEP with UV protection
dispensing accuracy:	0.1% systematic measurement deviation, 0.05% accidental measurement deviation in accordance with EN ISO 8655-6
Volume indicator:	0.01 to 999.9ml
Display:	LCD matrix display 69 x 39mm, 64 x 128 pixel
Mini keyboard:	Plug-in connection: 4-pin mini round DIN plug
Stirrer:	Plug-in connection with integral low-voltage power supply for TM 96
Electrodes:	pH/mV: DIN or BNC connector Measuring ranges, pH: 0 to 14, mV: -1400 to +1400
Temperature sensor:	Pt1000, measuring range -30 to +115°C
RS232-C:	bidirectional RS232-C interface, 4-pin mini DIN round plug
Supply requirements:	230V 50/60 Hz or 115V, 50/60 Hz
Case dimensions:	135 x 310 x 205mm (W x H x D), height includes dispensing unit, stirrer not included
Weight:	approx. 2.2kg
Operating range:	Ambient temperature: +10 to +40°C
The manufacturer reserves the right to amend technical specifications.	



Type	Description	PK	Cat. No.
Module 1		1	9.863 130
Module 2	for pH titrations	1	9.863 131
Module 3	for argentometric titrations	1	9.863 132

1 Motor-driven piston burette TITRONIC® 500

Motor-driven piston burette with intelligent exchangeable dosing units with automatic recognition of unit size and reagent data. Besides manual titration and highly precise dosing tasks the TITRONIC® 500 can also be used for the preparation of solutions by entering the weights. The connection of an analytical balance allows the easy automatization of the solution preparation. The TITRONIC® 500 can be completely controlled from a PC via the USB- or RS-232-interface. Up to 16 burettes can be connected to one another via the RS232 interface according to the daisy chain principle.

SI Analytics GmbH

T 500: TITRONIC® 500 basic unit without magnetic stirrer, with stand rod TZ 1510, titration clamp Z 305, controller TZ 3880, power supply 100-240.V

T 500-M1: TITRONIC® 500 basic unit with magnetic stirrer TM 235, with stand rod TZ 1510, titration clamp Z 305, controller TZ 3880, power supply 100-240V

T 500-M2/20: TITRONIC® 500 basic unit with magnetic stirrer TM 235 and exchangeable unit WA 20, with stand rod TZ 1510, titration clamp Z 305, controller TZ 3880, power supply 100-240V

Technical specification

Interfaces:	3x USB (2x USB A and 1x USB B), 2x RS-232-C
Stirrer connection:	TM 235 or alternative paddle stirrer
Keyboard:	The unit is operated using the keys on the device itself, the controller TZ 3880 and optional PC-keyboard (USB)
Display:	graphics-capable 3.5" TFT display
Volume display:	00.00 to 999.9ml
Display resolution:	0.001ml (depending on exchangeable unit)
Dosing speed:	max. 100ml/min (with 50ml unit)
Filling speed:	min. 20 to 999 sec adjustable (time according to the cylinder volume)
Exchangeable units:	5, 10, 20ml or 50ml exchangeable units with reagent recognition
Burette resolution:	10000
Dosing accuracy:	systematic error 0.1%, random error 0.05% in compliance with EN ISO 8655-6
Supply requirements:	100-240V; 50/60Hz
Conformity:	ISO 8655, part 6
CE-mark:	EMC: 2004/108/EG; safety EG- Directive 2006/95

Type	Description	PK	Cat. No.
T 500	Basic unit	1	9.863 210
T 500-M1	With magnetic stirrer	1	9.863 211
T 500-M2/20	With magnetic stirrer and 20ml exchangeable unit	1	9.863 212



1 Automatic Titrators, TitroLine® 6000**NEW!**

Compact new titrator with intelligent exchangeable units with automatic recognition of unit size and reagent data. Thanks to the modern USB- and additional RS232 interfaces, connection of printer, balance and further accessories are possible at the same time. The brilliant, very high-contrast TFT-display allows the easy parameterisation and tracking of the titration curve.

SI Analytics GmbH



TL 6000-M1/10: TitroLine® 6000 basic unit with magnetic stirrer TM 235 and 10ml exchangeable unit WA 10, incl. amber glass bottle for titration reagent, GL 45 and S 40-bottle adapter, tubes, drip off tube and titration tip.

TL 6000-M1/20: TitroLine® 6000 basic unit with magnetic stirrer TM 235 and 20ml exchangeable unit WA 20, incl. amber glass bottle for titration reagent, GL 45 and S 40-bottle adapter, tubes, drip off tube and titration tip.

TL 6000-M1/50: TitroLine® 6000 basic unit with magnetic stirrer TM 235 and 50ml exchangeable unit WA 50, incl. amber glass bottle for titration reagent, GL 45 and S 40-bottle adapter, tubes, drip off tube and titration tip.

TL 6000-M2/20: TitroLine® 6000 basic unit with magnetic stirrer TM 235 and 20ml exchangeable unit WA 20, incl. amber glass bottle for titration reagent, GL 45 and S 40-bottle adapter, tubes, drip off tube and titration tip. With pH-combination electrode IL-pHT-A120MF-DIN-N and buffer set.

Technical specification

Measuring input pH/mV:	pH/mV-input with DIN or BNC socket
Measuring input Dead Stop:	µA-input for double platinum electrode (socket 2 x 4mm), pole voltage adjustable
Temperature:	for resistance probes Pt 1000 (socket: 2 x 4mm)
Interfaces:	3x USB (2x USB-A und 1x USB-B), 2x RS-232-C
Stirrer connection:	TM 235 or alternative paddle stirrer
Keyboard:	The unit is operated using the keys on the device itself., the controller TZ 3880 and optional PC-keyboard (USB)
Display:	graphics-capable 3.5" TFT display
Exchangeable units:	5, 10, 20ml or 50ml exchangeable units with reagent recognition
Burette resolution:	10000
Dosing accuracy:	systematic error 0.1%, random error 0.05% in compliance with EN ISO 8655-6
Supply requirements:	100-240V; 50/60Hz
Conformity:	ISO 8655, part 6
CE-mark:	EMC: 2004/108/EG; safety EG- Directive 2006/95

Type	Description	PK	Cat. No.
TL 6000-M1/10	With 10ml exchangeable unit	1	9.863 150
TL 6000-M1/20	With 20ml exchangeable unit	1	9.863 151
TL 6000-M1/50	With 50ml exchangeable unit	1	9.863 152
TL 6000-M2/20	With 20ml exchangeable unit and pH Electrode	1	9.863 153

We can **supply** this
manufacturer's
whole
product range !



SI Analytics



1 Automatic Titrators, TitroLine® 7000

NEW!

SI Analytics GmbH

Compact new titrator with intelligent exchangeable units with automatic recognition of unit size and reagent data. ID sensors are being detected automatically. Thanks to the modern USB- and additional RS232 interfaces, connection of printer, balance and further accessories are possible at the same time. The brilliant, very high-contrast TFT-display allows the easy parameterisation and tracking of the titration curve.

TL 7000-M1/10: TitroLine® 7000 basic unit with magnetic stirrer TM 235 and 10ml exchangeable unit WA 10, incl. amber glass bottle for titration reagent, GL 45 and S 40-bottle adapter, tubes, drip off tube and titration tip.

TL 7000-M1/20: TitroLine® 7000 basic unit with magnetic stirrer TM 235 and 20ml exchangeable unit WA 20, incl. amber glass bottle for titration reagent, GL 45 and S 40-bottle adapter, tubes, drip off tube and titration tip

TL 7000-M1/50: TitroLine® 7000 basic unit with magnetic stirrer TM 235 and 50ml exchangeable unit WA 50, incl. amber glass bottle for titration reagent, GL 45 and S 40-bottle adapter, tubes, drip off tube and titration tip

TL 7000-M2/20: TitroLine® 7000 basic unit with magnetic stirrer TM 235 and 20ml exchangeable unit WA 20, incl. amber glass bottle for titration reagent, GL 45 and S 40-bottle adapter, tubes, drip off tube and titration tip. With pH-combination electrode IL-pHT-A120MF-DIN-N and buffer set.

Technical specification

Measuring input pH/mV:	pH/mV-input with DIN or BNC socket with ID function for automatic detection of electrode
Measuring input Dead Stop:	µA-input for double platinum electrode (socket 2 x 4 mm), pole voltage adjustable
Temperature:	for resistance probes Pt 1000 (socket: 2 x 4 mm)
Interfaces:	3x USB (2x USB A and 1x USB B), 2x RS-232-C
Stirrer connection:	TM 235 or alternative paddle stirrer
Keyboard:	The unit is operated using the keys on the device itself., the controller TZ 3880 and optional PC-keyboard (USB)
Display:	graphics-capable 3.5" TFT display
Exchangeable units:	5, 10, 20 or 50ml exchangeable units with reagent recognition
Burette resolution:	10000
Dosing accuracy:	systematic error 0.1%, random error 0.05% in compliance with EN ISO 8655-6
Netzanschluss:	100-240V; 50/60Hz
Conformity:	ISO 8655, part 6
CE-mark:	EMC: 2004/108/EG; safety EG-Directive 2006/95

Type	Description	PK	Cat. No.
TL 7000-M1/10	With 10ml exchangeable unit	1	9.863 160
TL 7000-M1/20	With 20ml exchangeable unit	1	9.863 161
TL 7000-M1/50	With 50ml exchangeable unit	1	9.863 162
TL 7000-M2/20	With 20ml exchangeable unit and pH Electrode	1	9.863 163

Accessories for TITRONIC® 500, TitroLine® 6000 and TitroLine® 7000

NEW!

SI Analytics GmbH

Type	Description	PK	Cat. No.
TM 235	Magnetic stirrer	1	9.863 154
WA 05	5ml exchangeable unit, complete	1	9.863 155
WA 10	10ml exchangeable unit, complete	1	9.863 156
WA 20	20ml exchangeable unit, complete	1	9.863 157
WA 50	50ml exchangeable unit, complete	1	9.863 158
TZ 3835	USB keyboard	1	9.863 159

1 2 Digital burettes, solarus®



Hirschmann

Powered by built-in solar cells. With media recycling system which aids priming, saves on expensive reagents and is environmentally-friendly. Easy to replace valves. Simple "Quick Cal" user calibrations and factory settings memorised in the unit allow individual adjustments.

- high visibility display
- very fine resolution in 0.01ml steps
- simple 2-key operation
- can be switched between factory and customer calibration
- rotating, stable discharge tube
- Conformity certified

Description	PK	Cat. No.
Capacity 10 ml	1	9.287 779
Capacity 20 ml	1	9.287 780
Capacity 50 ml	1	9.287 781
Interface cable	1	9.287 756

1



2



3 4 5 Digital-burette, opus®

Hirschmann

The motor-powered semi-automatic digital burette for rapid titration. opus® for motor-powered titration directly from the reagent bottle. The combination of the touch screen and "opus titration" software makes utilisation child's play. Electronic motor control makes opus an extremely sensitive precision titration instrument.

Outstanding features:

1. Simple menu-guided user instructions with tab cards on an external coloured TFT touch screen. Screen legibility is also guaranteed in even strong daylight
2. Versatile application options, thanks to superior quality materials (ECTFE, DURAN glass, FEP); media-conveying components are suitable for steam sterilisation (121°C)
3. User-friendly recycling system for rapid aeration without reagent loss - ensuring relief for the environment and your budget.
4. Rapid titration and drop titration
5. Practical accessories
 - USB interface connection cable
 - 2000mm long touch screen connection cable, special lengths available
 - silicone system platform with bottle holder
 - batteries available for selective battery operation
6. Individual problem-free calibration options
7. Method memory, capacity for up to 10 different settings e.g. volume, velocity, cycle duration,...
8. Individual adaptation options, e.g.
 - language selection (DE, UK, FR, ES)
 - specification of suction and dispensing velocity in ml/sec option for coordination with medium viscosity
9. Saving of last setting ensures speedy further processing when the instrument is reactivated
10. Certificate of conformity (H) in compliance with Appendix 12 EO
11. Quality assurance in compliance with DIN EN ISO 8655



4



5



Description	PK	Cat. No.
Volume 10 ml	1	9.287 875
Volume 20 ml	1	9.287 870
Volume 50 ml	1	9.287 871