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Volumetric apparatus/Measuring cylinders



Measuring cylinders, borosilicate glass 3.3, tall form, class A, blue graduated

Borosilicate glass 3.3. Conformity certified with batch ID. To DIN EN ISO 4788, DIN 12680. High form, hexagonal foot with spout. Calibrated to contain (IN) and all the tolerances are according to DIN/ISO Class A standards.

Isolab

Hirschmann

Capacity	Tolerance	Height	PK Cat. No.
ml	± ml	mm	
5	0.050	115	1 9.274 170
10	0.100	140	1 9.274 171
25	0.250	170	1 9.274 172
50	0.500	200	1 9.274 173
100	0.500	260	1 9.274 174
250	1.000	335	1 9.274 175
500	2.500	390	1 9.274 176 1
1000	5.000	470	1 9.274 177
2000	10.000	570	1 9.274 178



Measuring cylinders, DURAN®, tall form, class A, blue graduation

IN (TD) calibrated. With spout and hexagonal glass base. Main point ring graduation. With dated batch identification. Conformity certified. Graduation in durable blue enamel, acc.to DIN EN ISO 4788.

For those products batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Capacity	Grad.	Tolerance	Height	300	PK Cat. No.
ml	ml	± ml	mm		
5	0.1	0.05	115		1 9.274 180
10	0.2	0.1	140		1 9.274 181
25	0.5	0.25	170		1 9.274 182
50	1	0.5	200		1 9.274 183
100	1	0.5	260	LUAT	1 9.274 184 2
250	2	1.0	335	VIOF	1 9.274 185
500	5	2.5	390		1 9.274 186
1000	10	5.0	470		1 9.274 187
2000	20	10.0	500		1 9.274 188

Also available with dated batch identification acc. to USP (US Pharmacopeia).



Measuring cylinders, borosilicate glass 3.3, tall form, class A, blue graduated

With spout, tall form. BLAUBRAND®. To DIN EN ISO 4788. DE-M marking with works certified batch number. With spout and hexagonal foot.

Graduations and inscriptions in highly contrasting blue enamel. Calibrated to contain (IN). All BLAUBRAND® cylinders are delivered with batch number and batch certificate. Also available with individual works, USP, or DAkkS (former DKD) calibration certificate on request. The batch certificate is also available to download from the manufacturer's website.

Capaci	ity Grad.	Tolerance	Height	PK Cat. No.
ml 👝	ml	± ml	mm	
5	0.1	0.05	115	1 9.274 105
10	0.2	0.10	140	1 9.274 108
25	0.5	0.25	170	1 9.274 120
50	1	0.5	200	1 9.274 128
100	1	0.5	260	1 9.274 138 3
250	2	1.0	335	1 9.274 148
500	5	2.5	365	1 9.274 154
1000	10	5.0	465	1 9.274 162
2000	20	10	505	1 9.274 164



Volumetric apparatus/Measuring cylinders

Measuring cylinders, DURAN®, tall form, class A, amber stain graduation

IN (TC) calibrated. With spout and hexagonal glass base. Main point ring graduation. With dated batch identification. Conformity certified. With durable amber stain graduation, acc. to DIN EN ISO 4788.

Hirschmann

For those products batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are

Capacity	Grad.	Tolerance	Height	PK	Cat. No.
ml	ml	± ml	mm		
5	0.1	0.05	115	1	6.901 399
10	0.2	0.1	140	1	6.250 413
25	0.5	0.25	170	1	6.700 903
50	1.0	0.5	200	1	6.201 104
100	1.0	0.5	260	1	6.303 988 🚺
250	2.0	1.0	335	1	6.250 483
500	5.0	2.5	390	1	6.222 339
1000	10.0	5.0	470	1	6.200 496
2000	20.0	10.0	500	1	6.206 675



Measuring cylinders, borosilicate glass 3.3, tall form, class A, white graduated

High form, hexagonal with spout, foot PP. Borosilicate glass 3.3. Conformity certified with batch ID.To DIN EN ISO 4788, DIN 12680



Comornin	.y corumo	· With Butter 11	5110 5111 211 100	17007 5111 120001	3	
Capacity	Grad.	Tolerance	Height			

Capacity	Grad.	Tolerance	Height	PK Cat. No.
ml	ml	± ml	mm	
10	0.200	0.100	135	1 4.008 307
25	0.500	0.250	160	1 4.008 308
50	1.000	0.500	195	1 6.238 840
100	1.000	0.500	240	1 6.237 709 2
250	2.000	1.00	320	1 6.237 710
500	5.000	2.50	380	1 4.008 309
1000	10.00	5.00	465	1 4.008 310

Measuring cylinders, DURAN®, tall form, class B, blue graduation

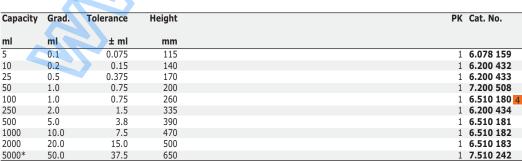
IN (TD) calibrated. With spout and hexagonal glass base, short line. Tolerances better than class B requirements. Graduation in durable blue enamel, acc.to DIN EN ISO 4788.



Capacity	Grad.	Tolerance	Height	PK	Cat. No.
ml	ml	± ml	mm		
5	0.1	0.075	115	1	9.274 198
10	0.2	0.15	140	1	9.274 199
25	0.5	0.375	170	1	9.274 200
50	1	0.75	200	1	9.274 201
100	1	0.75	260	1	9.274 202 3
250	2	1.5	335	1	9.274 203
500	5	3.75	390	1	9.274 204
1000	10	7.5	<u>470</u>	1	9.274 206
2000	20	15.0	500	1	9.274 207

Measuring cylinders, DURAN®, tall form, class B, amber stain graduation

IN (TC) calibrated. With spout and hexagonal glass base, short line. Tolerances better than class B requirements. With durable amber stain graduation, DIN EN ISO 4788.





^{*} Supplementary to DIN.



Volumetric apparatus/Measuring cylinders



Measuring cylinders, borosilicate glass 3.3, tall form, class B, amber graduation

Available with glass, or detachable plastic, feet and PP protective collars (plastic feet and collar are not autoclavable). With spout, tall form. SILBERBRAND Eterna. Class B. To DIN EN ISO 4788. With spout and hexagonal foot. Graduations and inscriptions in Eterna permanent amber stain. Calibrated to contain (IN).

BRAND

Capacity	Grad.	Height	Tolerance	Foot	PK Cat. No.
ml	ml	mm	± ml		
5	0.1	115	0.08	Glass	1 9.274 005
10	0.2	140	0.15	Glass	1 9.274 008
25	0.5	170	0.4	Glass	1 9.274 020
50	1	200	0.8	Glass	1 9.274 028
100	1	260	0.8	Glass	1 9.274 038 1
250	2	335	1.5	Glass	1 9.274 048
500	5	365	4	Glass	1 9.274 054
1000	10	465	8	Glass	1 9.274 062
2000	20	505	15	Glass	1 9.274 064



Measuring cylinders, DURAN®, low form, class B, amber stain graduation

IN (TC) calibrated. With spout and hexagonal glass base. Tolerances better than class B requirements. Short line graduation. With durable amber stain graduation, DIN EN ISO 4788.

Hirschmann

Capacity	Grad.	Tolerance	Height	300	PK	Cat. No.
ml	ml	± ml	mm			
10	1	0.3	100		1	9.274 190
25	1	0.5	125		1	9.274 191
50	2	1.0	150		1	9.274 192
100	2	1.0	170		1	9.274 193 2
250	5	2.0	220		1	9.274 194
500	10	5.0	255	VIOF	1	9.274 195
1000	20	10.0	295		1	9.274 196
2000	50	20.0	345		1	9.274 197



Measuring cylinders, PP, tall form, class B, blue graduated

Tall form, highly transparent, with blue graduations, hexagonal base, calibrated to contain (IN). Tolerances class B according to DIN 12681/ISO 6706. Exposure to temperatures above 60°C may effect accuracy. Cleaning up to max. 60°C is recommended to preserve marks and inscriptions.

Isolab

Isolab

Capacity	Tolerance	Height	PK	Cat. No.
ml	± ml	mm		
10	0.200	135	1	9.274 080
25	0.500	160	1	9.274 081
50	1.000	195	1	9.274 082
100	1.000	240	1	9.274 083
250	2.000	320	1	9.274 084 3
500	5.000	380	1	9.274 085
1000	10.000	465	1	9.274 086



Measuring cylinders, PP, tall form, class B, moulded graduations

-Manufactured from ultra clear, virgin polypropylene and its thick walls eliminate distortion.

- They offer high transperency, chemical resistance and remarkable heat tolerance.

They meet the highest quality standards according to DIN 12681 and ISO 6706.

- Individually calibrated through automatic calibration process carried out by robots.
- -Permanent quality control through all steps eliminate possible deviations from nominal values.
- Cylinders are calibrated to contain (In) and the tolerances are according to DIN/ISO Class "B" standards.
- Graduations are embossed and specially designed for plastic and resistant to 60°C.
- For consistent accurracy, polypropylene measuring cylinders should not be used with liquids over 60°C and should not be kept under direct sunlight or overheated conditions.

Capacity	Tolerance	Grad.	Height	PK	Cat. No.
ml	± ml	ml	mm		
10	0.200	0.200	135	1	6.243 541
25	0.500	0.500	160	1	6.243 542
50	1.000	1.000	195	1	6.243 543
100	1.000	1.000	240	1	6.243 544
250	2.000	2.000	320	1	6.243 545
500	5.000	5.000	380	1	6.243 546
1000	10.000	10.000	465	1	6.243 547

Volumetric apparatus/Measuring cylinders

VITLAB

Measuring cylinders, PP, tall form, class B, blue moulded graduations

Highly transparent.

With easily readable, raised, embossed blue scale and ring marks at the primary scale points.

Calibrated 'In'. Class B tolerances according to DIN 12681/ISO 6706.

Hexagonal base with bottom studs provides high stability. Thermal stress up to 80°C does not cause tolerance limits to be permanently exceeded. To preserve markings, do not clean at temperatures exceeding 60°C.

Food-safe (suitable for contact with foodstuff in accordance with Regulation (EC) No. 10/2011).

Capacity	Grad.	Height	Tolerance	Diam.	PK	Cat. No.
ml	ml	mm	± ml	mm		
10	0.20	145	0.2	15	1	9.274 408
25	0.50	170	0.5	22	1	9.274 409
50	1.00	200	1.0	27	1	9.274 410
100	1.00	250	1.0	33	1	9.274 411 1
250	2.00	315	2.0	44	1	9.274 412
500	5.00	360	5.0	58	1	9.274 413
1000	10.00	440	10.0	69	1	9.274 414
2000	20.00	482	20.0	97	1	9.274 415



Measuring cylinders, PP, tall form, class B, moulded graduations

Tall form. Highly transparent. With a raised scale and ring marks at the primary scale points, calibrated 'In'. Class B tolerances according to DIN 12681/ISO 6706. Hexagonal base with bottom studs provides high stability. Thermal stress up to 80°C does not cause tolerance limits to be permanently exceeded. Food-safe (suitable for contact with foodstuff in accordance with Regulation EC No. 10/2011).

VITLAB



Capacity	Grad.	Height	Tolerance	Diam.		PK	Cat. No.
ml	ml	mm	± ml	mm			
10	0.20	145	0.2	15	V NUA	1	7.075 031
25	0.50	170	0.5	22		1	9.274 420
50	1.00	200	1.0	27		1	9.274 428
100	1.00	250	1.0	33		1	9.274 438 2
250	2.00	315	2.0	44		1	9.274 448
500	5.00	360	5.0	58	A Z /	1	9.274 454
1000	10.00	440	10.0	69		1	9.274 462
2000	20.00	482	20.0	97		1	9.274 464

Measuring cylinders, PP, with handle, moulded graduations

The large handle provides a secure grip for safer, more controlled and convenient pouring. A double scale is accurate and easy to read. The wide hexagonal base prevents tip over and rolling on the benchtop. One litre and two litre sizes. Autoclavable at 121°C

Bel-Art Products



Capacity	Height	PK	Cat. No.
ml	mm		
1000	440	1	7.638 738
2000	490	1	9.274 870

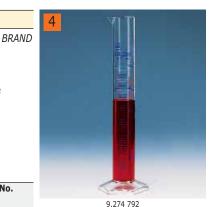
Measuring cylinders, PMP, tall form, class A, blue graduations

Tall form. PMP. Class A DIN 12681 and ISO 6706. Transparent, with blue printed graduations and inscriptions. Exposure to temperatures up to 121 $^{\circ}$ C (autoclaving) will not cause permanently exceeded error limits. Cleaning at temperatures below 60 $^{\circ}$ C is recommended to preserve graduations and inscriptions.

Conformity certified. With batch number and batch certificate. Single calibration reports or DAkkS certificates are available on request. The batch certificate is available to download from the manufacturer's website.

Class A tolerance is not affected even after 20 washes and 10 autoclave treatments. (DIN 12681 requires: 10 washes and 3 autoclave treatments).

Capacity	Grad.	Tolerance	Height	PK	Cat. No.
		A			
ml	ml	± ml	mm		
10	0.2	0.10	145	1	9.274 790
25	0.5	0.25	170	1	9.274 791
50	1	0.5	200	1	9.274 792 4
100	1	0.5	250	1	9.274 793
250	2	1.0	315	1	9.274 794
500	5	2.5	360	1	9.274 795
1000	10	5	440	1	9.274 796
2000	20	10	535	1	9.274 797



Volumetric apparatus/Measuring cylinders-Mixing cylinders



Measuring cylinders, SAN, low form, class B, moulded graduations

Short form. Crystal clear. With a raised scale and ring marks at the primary scale points, calibrated IN. Thermal stress up to 60°C does not cause tolerance limits to be permanently exceeded. Food-safe (suitable for contact with foodstuff in accordance with Regulation EC No. 10/2011).

Capacity	Grad.	Height	Tolerance	Diam.	PK Cat. No.
ml	ml	mm	± ml	mm	
25	0,50	122	0,50	22	1 7.060 690
50	1,00	142	1,00	27	1 7.060 691
100	2,00	163	2,00	37	1 7.008 999 1
250	5,00	192	5,00	51	1 7.060 692
500	10,00	218	10,00	67	1 7.060 693
1000	20.00	285	20.00	78	1 7.060 694



Measuring cylinders, SAN, tall form, class B, moulded graduations

Tall form. Crystal clear. With a raised scale and ring marks at the primary scale points,

calibrated IN. Class B tolerances according to DIN 12681/ISO 6706. Hexagonal base with
bottom studs provides high stability. Thermal stress up to 60°C does not cause tolerance limits to be permanently exceeded. Food-safe (suitable for contact with foodstuff in accordance with Regulation EC No. 10/2011).

Capacity	Grad.	Height	Tolerance	Diam.	PK Cat. No.
ml	ml	mm	± ml	mm	
10	0,20	140	0,20	16	1 7.009 005
25	0,50	169	0,50	21	1 7.009 008
50	1,00	199	1,00	28	1 7.009 011
100	1,00	260	1,00	34	1 7.009 014 2
250	2,00	315	2,00	47	1 7.009 017
500	5,00	350	5,00	61	1 7.009 020
1000	10,00	415	10,00	76	1 7.009 023
2000	20,00	482	20,00	97	1 7.009 026



Mixing cylinders, borosilicate glass 3.3, tall form, class A, blue graduated

Borosilicate glass 3.3. Tall form. Conformity certified, with certified batch number. PP stoppers and hexagonal foot. To DIN EN ISO 4788, DIN 12680.

Isolab

Capacity	Tolerance	Height	PK Cat.	No.
ml	± ml	mm		
10	0.100	160	1 9.27	5 070
25	0.250	195	1 9.27	5 071
50	0.500	230	1 9.27	5 072
100	0.500	290	1 9.27	5 073
250	1.000	370	1 9.27	5 074 3
500	2.500	395	1 9.27	5 075
1000	5.000	510	1 9.27	5 076



Mixing cylinders, borosilicate glass 3.3, tall form, class A, white graduated

Borosilicate glass 3.3 High form. Conformity certified, with certified batch number. PP stoppers and hexagonal foot. To DIN EN ISO 4788, DIN 12680.

Isolab

Capacity	Tolerance	Height	PK	Cat. No.
ml	± ml	mm		
10	0,100	160	1	9.275 080
25	0,250	195	1	9.275 081
50	0,500	230	1	9.275 082
100	0,500	290	1	9.275 083
250	1,000	370	1	9.275 084
500	2,500	395	1	9.275 085
1000	5,000	510	1	9.275 086

9.275 083

834

Mixing cylinders, borosilicate glass 3.3, tall form, class A, blue graduated

BLAUBRAND®. To DIN EN ISO 4788. DE-M marking, with works certified batch number. **BRAND** PP stoppers and hexagonal foot. Graduations and inscriptions in highly contrasting blue enamel. Calibrated to contain (IN). Height given is overall height without stopper. All BLAUBRAND® cylinders are delivered with batch number and one batch certificate is included in the manufacturer's outer pack. Individual works, USP, or DAkkS calibration certificates are also available on request. The batch certificate is also available to download from the supplier's website.

Capacity	Grad.	Neck	Height	PK Cat. No.
ml	ml	NS	mm	
10	0.2	10/19	160	1 9.275 208
25	0.5	14/23	190	1 9.275 220
50	1	19/26	220	1 9.275 228
100	1	24/29	285	1 9.275 238 1
250	2	29/32	350	1 9.275 248
500*	5	34/35	395	1 9.275 254
1000*	10	45/40	500	1 9.275 262



* Fitted with PE octagonal stoppers.

Mixing cylinders, borosilicate glass 3.3, stoppered, class B, amber graduated

SILBERBRAND Eterna. Class B. To DIN EN ISO 4788.

With PP stoppers and hexagonal foot. Graduations and inscriptions in Eterna amber stain. Calibrated to contain (IN). Height given is overall height without stopper

Capacity	Grad.	Joint size (NS)	Height		PK Cat. No.
ml	ml		mm		
10	0.2	10/19	160		1 9.275 008
25	0.5	14/23	190	_ (UAJ	1 9.275 020
50	1.0	19/26	220	∧ V/UF	1 9.275 028
100	1.0	24/29	285		1 9.275 038 2
250	2.0	29/32	350		1 9.275 048
500*	5	34/35	395		1 9.275 054
1000*	10	45/40	500		1 9.275 062

BRAND 9.275 038

Volumetric trapezoidal flasks, Borosilicate glass 3.3, class A, blue graduated

Borosilicate glass 3.3. Conformity certified, with batch certificate. Trapezoidal. With NS and PP stoppers, to DIN 12664, to DIN EN ISO 1042.

Capacity	Joint size (NS)	Tolerance	PK Cat. No.
ml		± ml	
1	07/16	0.025	1 6.237 705
2	07/16	0.025	1 6.236 426
3	07/16	0.025	1 7.930 290
4	07/16	0.025	1 7,930 291 3



Isolab

7.930 291

Volumetric trapezoidal flasks, DURAN®, class A, blue graduation

IN (TD) calibrated. With dated batch identification. Conformity certified. NS ground with Hirschmann poly stopper. Ring mark and graduation in high contrasting blue enamel. According to DIN EN ISO 1042. For those products batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Capacity	Joint size	Tolerance	Height	PK Cat. No.
ml	(NS)	± ml	mm	
1	7/16	0.025	60	1 9.276 645
2	7/16	0.025	70	1 9.276 646
5	7/16	0.025	70	1 9.276 647
5*	10/19	0.04	70	1 9.276 648
10	7/16	0.025	90	1 9.276 649
10*	10/19	0.04	90	1 9.276 650
20	10/19	0.04	110	1 9.276 651
25	10/19	0.04	110	1 9.276 652 4
50	12/21	0.06	140	1 9.276 653

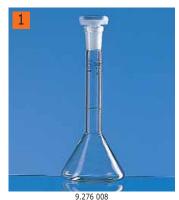




E & OE.

Fitted with PE octagonal stoppers.

Volumetric apparatus/Graduated flasks



Volumetric trapezoidal flasks, borosilicate glass 3.3, class A, blue graduations

BLAUBRAND®. DIN EN ISO 1042. DE-M marking. With batch number. Graduations and **BRAND** inscriptions in highly contrasting blue enamel. Calibrated to contain (IN). With PP stoppers. All BLAUBRAND® volumetric flasks are delivered with batch number and one batch certificate included per pack. Also available with individual works or DAkkS calibration certificate, please enquire. BLAUBRAND® volumetric flasks (except wide-neck flasks). Individual and batch works, USP calibration certificates are also available on request. Models with glass stoppers available on request.

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

Capacity	Joint size	Tolerance	PK Cat. No.
ml	(NS)	± ml	
2	7/16	0.025	1 9.276 002
5	7/16	0.025	1 9.276 003
10*	10/19	0.04	1 9.276 004
20	10/19	0.04	1 9.276 006
25	10/19	0.04	1 9.276 007
50	12/21	0.06	1 9.276 008 1

^{*} Wide neck version



9.276 610

Volumetric flasks, borosilicate glass 3.3, class A, blue graduated, with PP stoppers

Borosilicate glass 3.3. Conformity certified, with batch certificate. With NS and PP stoppers, to DIN 12664, to DIN EN ISO 1042. Calibrated to contain (IN) and all the tolerances are according to DIN/ISO Class A standards.

Isolab

Capacity	Joint size (NS)	Tolerance	(0)	PK Cat. No.
ml		± ml		
5	10/19	0.025		1 9.276 600
10	10/19	0.025		1 9.276 601
20	10/19	0.040	UMA	1 9.276 602
25	12/21	0.040		1 4.008 300
25	10/19	0.040		1 9.276 603
50	12/21	0.060		1 9.276 604
50	14/23	0,060		1 9.276 605
100	12/21	0.100		1 9.276 606
100	14/23	0.100		1 9.276 607
200	14/23	0.150		1 9.276 608
250	14/23	0.150		1 9.276 609
400	19/26	0.200		1 4.008 302
500	19/26	0.250		1 9.276 610 2
1000	24/29	0.400		1 9.276 611
2000	29/32	0.600		1 9.276 612
5000	34/35	1.200		1 9.276 613
10000	45/40	2.000		1 9.276 614



Volumetric flasks, borosilicate glass 3.3, class A, blue graduations, with PP stoppers

BRAND

BLAUBRAND®. Class A. DIN EN ISO 1042. DE-M marking with works certified batch number. Ring marks and inscriptions in highly contrasting blue enamel. Calibrated to contain (IN). PP stoppers. All BLAUBRAND® volumetric flasks are delivered with batch number and one batch certificate included per pack. Also available with individual works or DAkkS (former DKD) calibration certificate, please enquire.

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

Capacity	Joint size	Tolerance	PK	Cat. No.
ml	(NS)	± ml		
5*	10/19	0.04	1	9.276 438
10*	10/19	0.04	1	9.276 443
20	10/19	0.04	1	9.276 446
20*	12/21	0.06	1	6.239 438
25	10/19	0.04	1	9.276 447
25*	12/21	0.06	1	4.000 074
50	12/21	0.06	1	9.276 448
50*	14/23	0.10	1	9.276 456
100	12/21	0.10	1	9.276 449
100	14/23	0.10	1	9.276 457
200	14/23	0.15	1	9.276 450
250	14/23	0.15	1	9.276 451 3
500	19/26	0.25	1	9.276 452
1000	24/29	0.40	1	9.276 453
2000	29/32	0.60	1	9.276 454
5000	34/35	1.20	1	9.276 455
10000**	45/40	2.0	1	9.276 436

wide neck version

^{**}Supplementary to DIN.

Volumetric flasks, DURAN®, tall form, class A, blue graduation, with PE stoppers

IN (TD) calibrated. With dated batch identification. Conformity certified. With NS ground Hirschmann and polystopper. Ring mark and graduation in durable blue enamel, acc.to DIN EN ISO 1042. For those products batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Capacity	Joint size	Tolerance	Height	PK	Cat. No.
ml	(NS)	± ml	mm		
5	7/16	0.025	70	1	9.276 680
5**	10/19	0.04	70	1	9.276 681
10	7/16	0.025	90	1	9.276 682
10**	10/19	0.04	90	1	9.276 683
20	10/19	0.04	110	1	9.276 684
20**	12/21	0.06	105	1	9.276 679
25	10/19	0.04	110	1	9.276 685
25**	12/21	0.06	110	1	9.276 686
50	12/21	0.06	140	1	9.276 687
50**	14/23	0.08	140	1	9.276 688
100	12/21	0.1	170	1	9.276 689
100	14/23	0.1	170	1	9.276 690
200	14/23	0.15	210	1	9.276 691
250	14/23	0.15	220	1	9.276 692 1
500	19/26	0.25	260	1	9.276 693
1000**	29/32	0.6	300	I	9.276 694
1000	24/29	0.4	300	1	9.276 695
2000	29/32	0.6	370	1	9.276 696
5000	34/35	1.2	470	1	9.276 697
10000*	45/40	2.0	570	1	9.276 698



Also available with dated batch identfication acc. to USP (US Pharmacopeia)

Volumetric flasks, DURAN®, class A, blue graduation, with hollow glass stopper

IN (TD) calibrated. With dated batch identification. Conformity certified. NS ground with Hirschmann glass stopper. Ring mark and graduation in high contrasting blue enamel. According to DIN EN ISO 1042. For those products batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

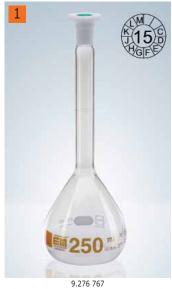
Capacity	Joint size	Tolerance	Height	PK	Cat. No.
ml	(NS)	± ml	mm		
5	7/16	0.025	70	1	9.276 470
5**	10/19	0.04	70	1	9.276 471
10	7/16	0.025	90	1	9.276 472
10**	10/19	0.04	90	1	9.276 473
20	10/19	0.04	110	1	9.276 474
20**	12/21	0.06	105	1	9.276 489
25	10/19	0.04	110	1	9.276 475
25**	12/21	0.06	110	1	9.276 476
50	12/21	0.06	140	1	9.276 477
50**	14/23	0.08	140	1	9.276 478
100	12/21	0.1	170	1	9.276 479
100	14/23	0.1	170	1	9.276 480
200	14/23	0.15	210	1	9.276 481
250	14/23	0.15	220	1	9.276 482 2
500	19/26	0.25	260	1	9.276 483
1000**	29/32	0.6	300	1	9.276 484
1000	24/29	0.4	300	1	9.276 485
2000	29/32	0.6	370	1	9.276 486
5000	34/35	1.2	470	1	9.276 487
10000*	45/40	2.0	570		9.276 488



**wide neck.

^{*} Supplementary to DIN. **Wide neck.

Volumetric apparatus/Graduated flasks



Volumetric flasks, DURAN®, class A, amber stain graduation, with PE stoppers

IN (TD) calibrated. With dated batch identification. Conformity certified. NS ground with polystopper. With durable amber stain graduation.

Hirschmann

According to DIN EN ISO 1042. For those products batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Capacity	NS	Tolerance	Height	PK	Cat. No.
ml		± ml	± 5mm		
5*	10/19	0.04	70	1	9.276 758
10*	10/19	0.04	90	1	9.276 759
20	10/19	0.04	110	1	9.276 760
25	10/19	0.04	110	1	9.276 761
50	12/21	0.06	140	1	9.276 762
50*	14/23	0.08	140	1	9.276 763
100	12/21	0.1	170	1	9.276 764
100	14/23	0.1	170	1	9.276 765
200	14/23	0.15	210	1	9.276 766
250	14/23	0.15	220	1	9.276 767
500	19/26	0.25	260	1	9.276 768
1000	24/29	0.4	300	1	9.276 769
2000	29/32	0.6	370	1	9.276 770

^{*} wide neck



Check flasks, DAkkS calibrated, borosilicate glass 3.3, class A, with 3 marks, blue graduations

BLAUBRAND®, DIN EN ISO 1042. Calibrated to contain (TC, IN). DAkkS (former DKD)

certificate included. The volumetric flask with 3 marks is used to check the functioning of
a dispenser. The mark in the middle shows the nominal volume, the upper and lower marks show the error limits as
specified in the table below. If the error limit is exceeded even with repeated measurements, the dispenser is defective.
The DAkkS-calibrated volumetric flask does not replace the gravimetric test of the monitoring of measuring instruments
according to ISO 8655.

For	Joint size (NS)	upper/	PK	Cat. No.
bottle		lower mark		
ml		± ml		
10 ml	10 / 19*	0.070	1	9.276 010
25 ml	10 / 19	0.175	1	9.276 011
50 ml	12 / 21	0.35	1	9.276 012
100 ml	14 / 23	0.70	1	9.276 013

^{*} Neck/ground socket connection enlarged, other sizes on demand.



9.276 630

Volumetric flasks, borosilicate glass 3.3 amber, class A, white graduated, with PP stoppers

Amber Borosilicate glass 3.3 with PP stoppers, DE-M marking, with batch certificate and white enamel graduations. To DIN EN ISO 1042, to DIN 12644. Calibrated to contain (IN) and all the tolerances are according to DIN/ISO Class A standards.

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Tca	la.
150	ıaı

Capacity	Joint size (NS)	Tolerance	PK Cat. No.
ml		± ml	
5	10/19	0.025	1 9.276 620
10	10/19	0.025	1 9.276 621
20	10/19	0.040	1 9.276 622
25	10/19	0.040	1 9.276 623
25	12/21	0.040	1 4.008 303
50	12/21	0.060	1 9.276 624
50	14/23	0.060	1 9.276 625
100	12/21	0.100	1 9.276 626
100	14/23	0.100	1 9.276 627
200	14/23	0.150	1 9.276 628
250	14/23	0.150	1 9.276 629
500	19/26	0.250	1 9.276 630 3
1000	24/29	0.400	1 9.276 631
2000	29/32	0.600	1 4.008 306

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Volumetric apparatus/Graduated flasks

Volumetric flasks, borosilicate glass 3.3, class A, PUR Plastic coated, blue graduations

BLAUBRAND® PURprotect, DE-M marking. Boro 3.3. DIN EN ISO 1042. Calibrated to BRAND contain (TC, IN). Ring mark and inscriptions in high contrast blue enamel. With PP stopper. The plain and high quality PUR coating envelops the volumetric flasks like a protective skin. In the event of breakage, the safety coating helps contain the glass fragments. The light blue coating facilitates optical distinction. Suitable for dishwashers (cleaning up to max. 95°C). All BLAUBRAND® volumetric flasks are supplied with a batch number and an accompanying batch certificate within the outer packaging. They are also available with individual works, or DAkkS (former DKD) calibration certificate on request. With the exception of the wide neck version, the graduated flasks with individual USPcertificate are available on request. Date of delivery on request. The batch certificate is also available to download from the manufacturer's website.

Capacity ml	Joint size (NS)	Tolerance ± ml	PK	Cat. No.
50*	14/23	0.10	1	9,276 460
100	14/23	0.10	1	9.276 461
200	14/23	0.15	1	9.276 462
250	14/23	0.15	1	9.276 463
500	19/26	0.25	1	9.276 464 1
1000	24/29	0.4	1	9.276 465
*wide mouth				

Further sizes availlable on request.



9.276 464

Volumetric flasks, borosilicate glass 3.3, class A, amber graduations, with PP stoppers

BLAUBRAND® Eterna. To DIN EN ISO 1042. DE-M marking. With batch number.

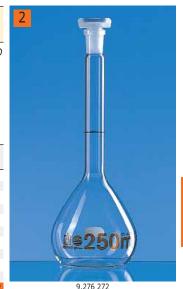
Graduation and inscriptions in Eterna amber stain. Calibrated to contain (IN).

PP stoppers. All BLAUBRAND® volumetric flasks are delivered with batch number and one batch certificate included per pack. Also available with individual works or DAkkS (former DKD) calibration certificate, please enquire. BLAUBRAND® volumetric flasks (except wide-neck flasks) are also available with individual and batch USP certification.

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

Capacity ml	Joint size (NS)	Tolerance ± ml		PK Cat. No.
5*	10/19	0,04		1 9.276 260
10*	10/19	0,04		1 9.276 261
20	10/19	0,04	. 1	1 9.276 262
20*	12/21	0,06		1 4.007 850
25	10/19	0,04		1 4.007 849
25*	12/21	0,06		1 9.276 263
50	12/21	0,06		1 9.276 264
50*	14/23	0,10		1 9.276 265
100	14/23	0,10	A	1 9.276 270
200	14/23	0,15		1 9.276 271
250	14/23	0,15		1 9.276 272
500	19/26	0,25		1 9.276 273
1000	24/29	0,40		1 9.276 274
2000	29/32	0,60		1 9.276 275





Volumetric flasks, DURAN® amber glass, class A, with polystopper

IN (TD) calibrated. Amber glass. With dated batch identification. Conformity certified. Hirschmann With NS and polystopper. Ring mark and graduation in durable white enamel, acc.to DIN EN ISO 1042. For these products batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Capacity	Joint size	Tolerance	Height	PK Cat. No.
ml ,	(NS)	± ml	mm	
5	7/16	0.025	70	1 9.276 6 9
5*	10/19	0.04	70	1 9.276 7 0
10	7/16	0.025	90	1 9.276 7 0
10*	10/19	0.04	90	1 9.276 7 0
20	10/19	0.04	110	1 9.276 7 0
25	10/19	0.04	110	1 9.276 7 0
25*	12/21	0.06	110	1 9.276 7 3
50	12/21	0.06	140	1 9.276 7 0
50*	14/23	0.08	140	1 9.276 7 3
100	12/21	0.1	170	1 9.276 7 0
100	14/23	0.1	170	1 9.276 7 3
200	14/23	0.15	210	1 9.276 7 0
250	14/23	0.15	220	1 9.276 7 0
500	19/26	0.25	260	1 9.276 7 0
1000	24/29	0.4	300	1 9.276 7 3
2000	29/32	0.6	370	1 9.276 7 3

Also available with dated batch identfication acc. to USP (US Pharmacopeia).



Volumetric apparatus/Graduated flasks



Volumetric flasks, DURAN® amber glass, class A, white graduation, with amber glass stopper

IN (TD) calibrated. With dated batch identification. Conformity certified. With hollow amber glass stopper. Ring mark and graduation in white enamel.

Hirschmann

According to DIN EN ISO 1042. For these products batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Capacity	Joint size	Tolerance	Height	PK	Cat. No.
ml	(NS)	± ml	mm		
5	7/16	0.025	70	1	9.276 500
5*	10/19	0.04	70	1	9.276 501
10	7/16	0.025	90	1	9.276 502
10*	10/19	0.04	90	1	9.276 503
20	10/19	0.04	110	1	9.276 504
25	10/19	0.04	110	1	9.276 505
50	12/21	0.06	140	1	9.276 506
50*	14/23	0.08	140	1	9.276 507
100	12/21	0.1	170	1	9.276 508
100	14/23	0.1	170	1	9.276 509
200	14/23	0.15	210	1	9.276 510
250	14/23	0.15	220	1	9.276 511 1
500	19/26	0.25	260	1	9.276 512
1000	24/29	0.4	300	1	9.276 513
2000	29/32	0.6	370	1	9.276 514

Wide neck.



Volumetric flasks, borosilicate glass 3.3, Class B.

SILBERBRAND. To DIN EN ISO 1042. Graduation and inscriptions in highly contrasting white enamel. Caibrated to contain (IN). With PP stoppers.

BRAND

Capacity	Joint size	Tolerance	PK Cat. No.
ml	(NS)	± ml	
10*	10/19	0.06	1 9.276 243
20	10/19	0.06	1 9.276 246
25	10/19	0.06	1 9.276 247
50	12/21	0.09	1 9.276 248
100	12/21	0.15	1 9.276 249
200	14/23	0.25	1 9.276 250
250	14/23	0.25	1 9.276 251
500	19/26	0.40	1 9.276 252
1000	24/29	0.60	1 9.276 25 3
2000	29/32	0.90	1 9.276 25 4
5000	34/35	1.80	1 9.276 25 5



9.276 734

Volumetric flasks, DURAN®, with beaded rim, class A, blue graduation

IN (TD) calibrated. With beaded rim and dated batch identification. Conformity certified. Hirschmann Ring mark and graduation in high contrasting blue enamel. According to DIN EN ISO 1042. For those products, batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Capacity	Tolerance	Height	PK	Cat. No.
ml	± ml	mm		
5	0.025	70	1	9.276 715
10	0.025	90	1	9.276 716
20	0.04	110	1	9.276 717
25	0.04	110	1	9.276 718
50	0.06	140	1	9.276 719
100	0.1	170	1	9.276 720
200	0.15	210	1	9.276 733
250	0.15	220	1	9.276 734 3
500	0.25	260	1	9.276 735
1000	0.4	300	1	9.276 736
2000	0.6	370	1	9.276 737
5000	1.2	470	1	9.276 738
10000*	2.0	570	1	9.276 739

^{*} additional to DIN

100

1000

8. Liquid Handling

Volumetric apparatus/Graduated flasks

9.276 880

9.276 955

Isolab

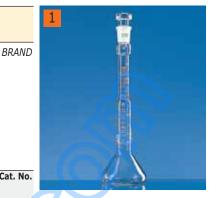
VITLAB

Volumetric flasks for determination of oil content, SILBERBRAND, Borosilicate glass 3.3

DIN 51 368. For determination of oil content in aqueous oil emulsions (e.g. drilling oil). With NS19/26, hollow glass stoppers. Graduations and inscriptions in highly contrasting white enamel. Capacity 100 ml, tolerance ± 0.2 ml. Calibrated to contain (IN).

Subdivisions: 0 to 5 ml : 0.1 ml, tolerance: ± 0.1 ml. Subdivisions: 5 to 30 ml : 0.5 ml, tolerance: ± 0.5 ml.

Sample	PK	Cat. No.
Sample volume		
ml		



Volumetric flasks for sugar tests, Borosilicate glass 3.3, class B, white graduated

For sugar tests in the style of Kohlrausch. SILBERBRAND. Tolerance equivalent to class B. Ring marks and inscriptions in highly contrasting white enamel. Calibrated to contain (IN).

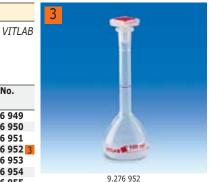
Capacity	Tolerance		PK Cat. No.
ml	± ml		
100	0.2		1 9.276 885 2
200	0.3		1 9.276 887



Volumetric flasks, PMP, class A

With NS stoppers, PP. Crystal clear. With ring mark individually calibrated to (IN). Class A tolerances according to DIN EN ISO 1042. With printed lot number and batch certificate. Thermal stress up to 121°C (autoclaving) does not permanently exceed the tolerance limit. To preserve markings, do not clean at temperatures exceeding 60°C

Capacity Tolerance Height Stopper PK Cat. No. NS ml ± ml mm 10 0.04 90 10 / 19 9.276 949 25 10 / 19 0.04 115 1 **9.276 950** 50 0.06 9.276 951 150 12 / 21 100 0.10 180 14 / 23 9.276 952 3 250 0.15 235 19 / 26 9.276 953 19 / 26 500 0.25 270 1 9.276 954



4 Volumetric flasks, plastic, class B, PP NS-stoppers

24 / 29

310

To DIN EN ISO 1042, with individually adjusted, blue printed graduation and inscriptions, with PP standard ground joint stoppers. Autoclavable.

Capacity ml	Tolerance ± ml	Joint size (NS)	PK	Cat. No.
25	0,08	10/19	1	9.276 590
50	0,12	12/21	1	9.276 591
100	0,20	14/23	1	9.276 592
250	0,30	14/23	1	9.276 593
500	0,50	19/26	1	9.276 594
1000	0,80	24/29	1	9.276 595



5 Volumetric flasks, PP, Class B, NS-stoppers PP

Highly transparent.

With ring mark individually calibrated to In'.

Class B tolerances according to DIN EN ISO 1042.

Thermal stress up to 60°C does not permanently exceed the tolerance limits.

To preserve markings, do not clean at temperatures exceeding 60°C

Capacity	Height	Joint size	Tolerance	PK	Cat. No.
ml	mm	(NS)	± ml		
10	90	10 / 19	0.08	1	9.276 818
25	115	10 / 19	0.08	1	9.276 820
50	150	12 / 21	0.12	1	9.276 828
100	180	14 / 23	0.20	1	9.276 838
250	235	19 / 26	0.30	1	9.276 848
500	270	19 / 26	0.50	1	9.276 854
1000	310	24 / 29	0.80	1	9.276 862



Volumetric apparatus/Graduated flasks-Pipettes/Volumetric pipettes



Kipp dispenser heads, DURAN® tubing

Made of DURAN® tubing.

Reservoir bottle, 1000ml with NS29/32 joint please order separately.

Description	PK Cat. No.
Dispenser head for Kipp dispenser 5 ml	1 9.277 105
Dispenser head for Kipp dispenser 10 ml	1 9.277 110
Dispenser head for Kipp dispenser 20 ml	1 9.277 120
Dispenser head for Kipp dispenser 25 ml	1 9.277 125
Dispenser head for Kipp dispenser 50 ml	1 9.277 150
Reservoir bottle for dispenser heads	1 6.224 318



Volumetric pipettes, soda glass, class AS, 1 mark

Soda glass. Conformity-certified. With batch date identification. DIN EN ISO 648, DIN 12691 and BS 700 - 1583. Calibrated to deliver (EX).

Ring mark and inscriptions in permanent blue enamel.

Volume	Tolerance	Length		PK Cat. No.
ml	± ml	mm		
1	0.007	310		1 9.272 260
2	0.010	330		1 9.272 261
3	0.010	360		1 9.272 262
4	0.015	360		1 9.272 263
5	0.015	400		1 9.272 264
10	0.020	440		1 9.272 265
15	0.030	455		1 9.272 267
20	0.030	510		1 9.272 268
25	0.030	520		1 9.272 269
50	0.050	540	A U/DY	1 9.272 270 2



Volumetric pipettes, AR-glass[®], class AS, 1 mark, blue graduation

EX (TD) calibrated. With dated batch identification. Conformity certified.

Hirschmann
One mark pipettes, graduation in high-contrast blue colour. Acc. to DIN EN ISO 648.
For those products, batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Volume	Tolerance	Overall length	PK Cat. No.	
ml	± ml	± 10 mm		
1	0.008	325	1 9.273 27	0
2	0.01	350	1 9.273 27	1
2.5*	0.01	350	1 9.273 27	2
3*	0.01	350	1 9.273 27	3
5	0.015	410	1 9.273 27 0	6
10	0.02	450	1 9.273 28	0
15*	0.03	520	1 9.273 28	1
20	0.03	520	1 9.273 28	2
25	0.03	530	1 9.273 28 -	4 3
50	0.05	550	1 9.273 28	6
100	0.08	600	1 9.273 28	8

* Supplementary to DIN.



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Isolab

Volumetric pipettes, class AS, AR-Glass®, blue graduation

BLAUBRAND®. DIN EN ISO 648. DE-M marking. With batch number. Graduations and inscriptions in highly contrasting blue enamel. Adjusted to EX.

BRAND

BRAND

All BLAUBRAND® volumetric pipettes are supplied with batch number and one works batch certificate per manufacturer's outer pack (up to 2ml: 12 cylinders, above 2ml: 6 cylinders per pack). Also available with individual certificate or DAkkS (former DKD) calibration certificate, please enquire.

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

Volume	Tolerance	Overall	PK	Cat. No.
		length		
ml	± ml	± 10 mm		
0,5	0.005	300	1	9.273 101
1	0.008	300	1	9.273 102
2	0.010	330	1	9.273 103
2,5	0.010	330	1	9.273 104
3	0.010	330	1	9.273 105
4	0.015	400	1	9.273 106
5	0.015	400	1	9.273 107
6	0.015	400	1	9.273 108
7	0.015	400	1	9.273 109
8	0.02	440	1	9.273 110
9	0.02	440	1	9.273 111
10	0.02	440	1	9.273 112
15	0.03	510	1	9.273 113
20	0.03	510	1	9.273 114
25	0.03	520	i	9.273 115 1
30	0.03	520	1	9.273 116
40	0.05	540	1	9.273 117
50	0.05	540		9.273 118
100	0.08	585*	1	9.273 119



* ±15 mm

Volumetric pipettes, USP, class AS, AR-Glass®, blue graduation

BLAUBRAND®, DE-M marking. DIN EN ISO 648. Calibrated to deliver (TD, EX).

Marks and inscriptions in high contrast blue enamel. Incl. one USP batch certificate.

On request, also available with USP individual certificate or DAkkS certificate.

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

Volume	Tolerance	Overall length		PK	Cat. No.
ml	± ml	± 10 mm			
0,5*	0.005	300		1	6.262 520
1	0.006	300		1	7.659 228
2	0.006	330		1	6.262 521
3	0.01	330		1	6.262 522
4	0.01	400		1	6.262 523
5	0.01	400	ALVOI	1	7.659 239
6	0.01	400		1	6.262 524
7	0.01	400		1	6.262 525
8	0.02	440		1	6.262 526
9	0.02	440		1	6.262 527
10	0.02	440		1	7.659 240
15	0.03	510		1	6.262 528
20	0.03	510		1	6.262 529
25	0.03	520		1	6.262 530 2
30	0.03	520		1	7.659 241
40	0.05	540	▼	1	6.262 531
50	0.05	540		1	6.262 532
100	0.8	585 (±15mm)		1	7.659 242



* Error limit USP ±0.006ml



Pipettes/Volumetric pipettes



Volumetric pipettes, AR-glass®, class AS, 1 mark, amber stain graduation

EX (TD) calibrated. With dated batch identification. Conformity certified.

Hirschmann

Hirschmann

With durable amber stain graduation, acc.to DIN EN ISO 648.

For those products, batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Volume	Tolerance	Overall		PK	Cat. No.
ml	± ml	length ± 10 mm			
0,5	0.005	300		1	6.200 955
1	0.008	325		1	6.052 959
1,5*	0.01	350		1	7.200 075
2	0.01	350		1	6.092 721
2,5*	0.01	350		1	6.079 397
3*	0.01	350		1	6.303 738
4*	0.015	410		1	6.300 028
5	0.015	410		1	6.081 798
6*	0.015	410		1	6.300 025
7*	0.015	410		1	6.300 026
8*	0.02	450		1	6.077 361
9*	0.02	450		1	6.300 299
10	0.02	450		1	6.050 827
15*	0.03	520		1	6.057 100
20	0.03	520		1	6.084 029
25	0.03	530		1	6.084 072 1
30*	0.03	530			6.057 101
40*	0.05	550	20.00	1	6.077 366
50	0.05	550		1	6.054 343
100	0.08	600		1	6.055 472

^{*} Supplementary to DIN.

Also available with dated batch identifikation acc. to USP (US Pharmacopeia)



9.273 225

Volumetric pipettes, AR-Glas®, class AS, 1 mark, amber graduation

BLAUBRAND® Eterna. DIN EN ISO 648. Calibrated to deliver (TD, EX). DE-M marking. **BRAND** Graduations and inscriptions in Eterna amber stain (particularly resistant to aggressive cleaning methods). All BLAUBRAND® bulb pipettes are supplied with a batch number and one batch certificate per manufacturer's outer pack. Also available with an individual works, USP, or DAkkS (former DKD) calibration certificate on request. The batch certificate is also available to download from the supplier's website.

Volume	Tolerance	Overall length	PK	Cat. No.
ml	± ml	± 10 mm		
1	0.008	300	1	9.273 220
2	0.010	330	1	9.273 221
5	0.015	400	1	9.273 222
10	0.02	440	1	9.273 223
20	0.03	510	1	9.273 224
25	0.03	520	1	9.273 225
50	0.05	540	1	9.273 226



6.801 023

Volumetric pipettes, AR-glass®, class AS, 2 marks, amber stain graduation

EX (TD) calibrated. Volume between two marks (partial delivery). With dated batch identification. Conformity certified. Volume mark, ringmark and graduation in durable amber stain graduation, acc. to DIN EN ISO 648.

For those products, batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Volume	Tolerance	Overall length	PK	Cat. No.
ml	± ml	mm		
0.5	0.005	300	1	6.801 018
1	0.008	325	1	6.801 019
2	0.01	350	1	6.801 020
3*	0.01	350	1	6.056 820
5	0.015	410	1	6.801 021
10	0.02	450	1	6.071 748
15*	0.03	520	1	6.225 909
20	0.03	520	1	6.801 022
25	0.03	530	1	6.801 023 3
50	0.05	550	1	6.801 024
100	0.08	600	1	6.800 124

^{*} Supplementary to DIN.

Volumetric pipettes, AR-Glas®, class AS, 2 marks, blue graduation

BLAUBRAND®. DE-M marking. DIN EN ISO 648. Adjusted to EX. Graduations and inscriptions in highly contrasting blue enamel. All BLAUBRAND® volumetric pipettes are supplied with batch number and one works batch certificate per manufacturer's outer pack. Also available with individual works or DAkkS (former DKD) calibration certificate on request. The batch certificate is also available to download from the supplier's website.

BRAND



Volume	Tolerance	Overall length	PK Cat. No.
ml	± ml	± 10 mm	
0.5	0.005	300	1 9.273 121
1.0	0.008	300	1 9.273 122
2.0	0.010	330	1 9.273 123
3.0	0.010	330	1 9.273 125
5.0	0.015	400	1 9.273 127
10.0	0.02	440	1 9.273 132
15.0	0.03	510	1 9.273 133
20.0	0.03	510	1 9.273 134
25.0	0.03	520	1 9.273 135 <u>1</u>
50.0	0.05	540	1 9.273 138

Volumetric pipettes, AR-glass®, 1 mark, class B, amber stain graduation

EX (TD) calibrated. Tolerances better than class B requirements. With durable amber stain graduation, acc. to DIN EN ISO 648.

Hirschmann

Volume	Tolerance	Overall length		PK Cat. No.
ml	± ml	± 10 mm		
0.5	0.008	300		1 9.273 258
1	0.012	325		1 9.273 259
2	0.015	350		1 9.273 260
3*	0.015	350		1 9.273 261
4*	0.023	410		1 9.273 257
5	0.023	410	A //	1 9.273 262
10	0.03	450	\sim \sim \sim	1 9.273 263
15*	0.045	520		1 9.273 264
20	0.045	520		1 9.273 265
25	0.045	530		1 9.273 266 2
50	0.075	550		1 9.273 268
100	0.12	600		1 9.273 269



9.273 266

Volumetric pipettes, Class B, AR-Glas®, amber graduation

SILBERBRAND Eterna. DIN EN ISO 648. Graduations and inscriptions in Eterna permanent amber diffusion stain. Adjusted to EX.

Volume	Tolerance	Overall length	PK	Cat. No.
ml	± ml	± 10 mm		
0.5	0.007	300	1	9.273 001
1	0.010	300	1	9.273 002
2	0.015	330	1	9.273 003
3	0.015	330	1	9.273 005
5	0.025	400	1	9.273 007
10	0.03	440	1	9.273 012
15	0.04	510	1	9.273 013
20	0.04	510	1	9.273 014
25	0.04	520	1	9.273 015 3
50	0.07	540	1	9.273 018
100	0.12	585*	1	9.273 019



* ±15 mm

^{*} Supplementary to DIN.

BRAND

Isolab

8. Liquid Handling

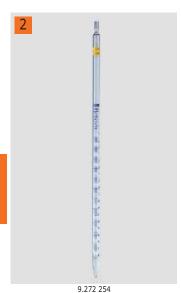
Pipettes/Volumetric pipettes-Graduated pipettes



Volumetric pipettes, PP, 1 mark

Highly translucent. Streak-resistant, blue-printed graduations and inscriptions. Adjusted to EX. Exposure to temperatures up to 60°C will not affect tolerances. Cleaning at temperatures below 60°C is recommended to preserve graduations and inscriptions.

Volume	Tolerance	Overall length	PK Cat. No.
ml	± ml	± 10 mm	
1	0.02	300	1 9.273 232
2	0.02	300	1 9.273 233
5	0.03	300	1 9.273 235
10	0.04	440	1 9.273 236
25	0.06	450	1 9.273 238 1
50	0.1	460	1 9 273 239



Graduated pipettes, soda glass, class AS, type 3

Soda glass. Conformity-certified. With batch date identification. DIN EN ISO 835, DIN 12697 and BS700 - 1583. Calibrated to deliver (EX). Ring marks and graduations in permanent blue enamel.

Volume	Graduations	Tolerance	Length	PK	Cat. No.
ml	ml	± ml	mm		
1	0.01	0.007	360	1	9.272 250
2	0.02	0.010	360	1	9.272 251
5	0.05	0.030	360	1	9.272 252
10	0.1	0.050	360	1	9.272 253
20	0.1	0.100	450	1	9.272 254 2
25	0.1	0.100	450	1	9.272 255
50	0.1	0.200	720	1	9.272 256



Graduated pipettes, AR-glass®, class AS, blue graduation, type 3

EX (TD) calibrated. Main point ring graduation. With dated batch identification.

Conformity certified. Main point ring graduation. High-contrast blue graduation.

Graduated to the tip, zero on top. Type 3, acc. to DIN EN ISO 835. From 5ml with cotton plug end as standard.

For those products batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Volume	Grad.	Tolerance	Overall length	PK Cat. No.
ml	ml	± ml	± 5 mm	
0.5	0.01	0.006	360	1 9.272 380
1	0.01	0.007	360	1 9.272 381
1	0.10	0.007	360	1 9.272 382
2*	0.01	0.01	360	1 9.272 383
2	0.02	0.01	360	1 9.272 384
2	0.10	0.01	360	1 9.272 385
5	0.05	0.03	360	1 9.272 387
5	0.10	0.03	360	1 9.272 388
10	0.10	0.05	360	1 9.272 389 3
20	0.10	0.1	360	1 9.272 390
25	0.10	0.1	450	1 9.272 391
50*	0.20	0.2	450	1 9.272 392

* Supplementary to DIN

8. Liquid Handling **Pipettes/Graduated pipettes**

BRAND

Graduated pipettes, Class AS, AR-Glas®, blue graduation, type 3 (zero at top)

BLAUBRAND®. DIN EN ISO 835. Type 3 (Zero at top). DE-M marking, with batch number. Delivery to tip. Adjusted to EX. Waiting time 5 seconds. Ring mark and inscriptions in high contrast, blue enamel.

One batch certificate included per standard pack.

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

Volume	Grad.	Tolerance	Length (± 10mm)	PK	Cat. No.
ml	ml	± ml	mm		
0.5	0.01	0.006	360	1	9.272 105
1	0.01	0.007	360	1	9.272 106
1***	0.01	0.007	360	1	9.272 117
1	0.1	0.007	360	1	9.272 107
2**	0.01	0.010	360	1	9.272 108
2	0.02	0.010	360	1	9.272 109
2***	0.02	0.010	360	1	9.272 118
2	0.1	0.010	360	1	9.272 110
5***	0.05	0.030	360	1	9.272 111
5***	0.1	0.030	360	1	9.272 112
10***	0.1	0.05	360	1	9.272 113 1
20***	0.1	0.10	360	1	9.272 114
25***	0.1	0.10	450	1	9.272 115
50* ***	0.5	0.2	450	1	9.272 116

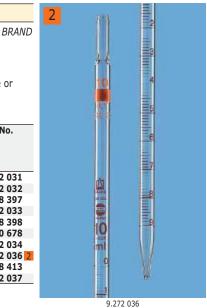
^{9.272 113}

Graduated pipettes, AR-Glas®, Class AS, amber graduations, type 3

BLAUBRAND® ETERNA, DE-M marking, AR-Glas®. DIN EN ISO 835. Type 3 (Zero point at the top), total delivery. Calibrated to deliver (TD, Ex). Waiting time 5 seconds. Ring mark and inscription in ETERNA amber stain.

All BLAUBRAND® graduated pipettes are supplied with a batch number and an accompanying batch certificate in the original packaging. On request, they are also available with an individual certificate, USP individual certificate or DAkkS (former DKD) calibration certificate.

Volume	Graduations	Tolerance	Suitable for cotton plugs	PK Cat. No.
ml	ml	± ml		
0.5	0.01	0.006	no	1 9.272 031
1	0.01	0.007	no	1 9.272 032
1	0.01	0.007	yes	1 7.018 397
2	0.02	0.010	no	1 9.272 033
2	0.02	0.010	yes	1 7.018 398
5	0.05	0.030	yes	1 7.060 678
5	0.1	0.030	yes	1 9.272 034
10	0.1	0.05	yes	1 9.272 036 2
20	0.1	0.10	yes	1 7.018 413
25	0.1	0.10	yes	1 9.272 037



ve can Supply this anufacturer's whole product range!





^{*} Supplementary to ISO. **Supplementary to ISO, not DE-M marked.

^{***}Cotton plugged

Pipettes/Graduated pipettes



6.058 191

Graduated pipettes, AR-glass®, class AS, amber stain graduation, type 3

EX (TD) calibrated. Main point ring graduation. With dated batch identification.

Conformity certified. With durable amber stain graduation. Graduated to the tip,
zero on top. Type 3, acc. to DIN EN ISO 835. From 5ml with cotton plug end as standard.

For those products, batch calibration reports, which are free of charge, can be generated and printed on
www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports)
are available.

Volume	Grad.	Tolerance	Overall length	PK	Cat. No.
ml	ml	± ml	± 5 mm		
0.5	0.01	0.006	360	1	6.059 364
1	0.01	0.007	360	1	6.301 732
1	0.1	0.007	360	1	6.303 032
2*	0.01	0.01	360	1	6.305 430
2	0.02	0.01	360	1	6.059 699
2	0.1	0.01	360	1	6.202 868
5	0.05	0.03	360	1	6.081 209
5	0.1	0.03	360	1	6.059 800
10	0.1	0.05	360	1	6.058 191 1
20	0.1	0.1	360	1	6.200 448
25	0.1	0.1	450	1	6.303 743
50*	0.2	0.2	450	1	6.234 515

^{*} in addition to DIN.

Available also with dated batch USP (U.S. Pharmacopeia).



Graduated pipettes, AR-glass®, class AS, amber stain graduation, type 2

EX (TD) calibrated. Main point ring graduation. With dated batch identification.

Conformity certified. With durable amber stain graduation. Graduated to the tip, zero in tip. Type 2, acc. to DIN EN ISO 835. From 5ml with cotton plug end as standard.

For those products, batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Volume	Grad.	Tolerance	Overall	PK	Cat. No.
			length		
ml	ml	± ml	± 5 mm		
0.5	0.01	0.006	360	1	9.272 350
1	0.01	0.007	360	1.	9.272 351
1	0.1	0.007	360	1	9.272 352
2	0.02	0.01	360	1	9.272 353 2
2	0.1	0.01	360	1	9.272 354
5	0.05	0.03	360	1.	9.272 355
5	0.1	0.03	360	1	6.202 713
10	0.1	0.05	360	1.	6.202 714
20	0.1	0.1	360	1	9.272 358
25	0.1	0.1	450	1	9.272 359



9,272 007

9.272 353

Graduated pipettes, Class AS, amber graduations, type 2

BLAUBRAND®, DE-M marking, AR-Glas®. DIN EN ISO 835. Type 2 (zero at top),
total delivery. Calibrated to deliver (TD, EX). Waiting time 5 seconds. Marks and inscriptions
in high contrast blue enamel. All BLAUBRAND® graduated pipettes are supplied with a batch number and an
accompanying batch certificate in the original packaging. Also available with individual works, USP, or DAkkS
(former DKD) calibration certificate on request. Supplementary to the DIN range. The batch and single certificates are
also available to download from the supplier's website.

Volume	Grad.	Tolerance	Overall length	Suitable for cotton plugs	PK Cat. No.
ml	ml	± ml	± 10 mm		
0.5	0.01	0.006	360	no	1 9.272 000
1	0.01	0.007	360	no	1 9.272 001
1	0.01	0.007	360	yes	1 9.272 002
2	0.02	0.010	360	no	1 9.272 003
2	0.02	0.010	360	yes	1 9.272 004
5	0.05	0.030	360	yes	1 9.272 005
5	0.10	0.030	360	yes	1 9.272 006
10	0.1	0.05	360	yes	1 9.272 007 3
20	0.1	0.10	360	yes	1 9.272 008
25	0.1	0.10	450	yes	1 9.272 009

Graduated pipettes, Class AS, AR-Glas®, blue graduation, type 2

BLAUBRAND®, DIN EN ISO 835, DE-M marking. Type 2 (nominal volume at top), **BRAND** total delivery. Calibrated to deliver (TD, EX). Waiting time 5 seconds. Marks and inscriptions in high contrast blue enamel. All BLAUBRAND® graduated pipettes are supplied with batch number and one batch certificate per manufacturer's outer pack. Also available with individual works, USP, or DKD calibration certificate on request. The batch certificate is also available to download from the supplier's website.

Volume	Grad.	Tolerance	Overall	PK Cat. No.
			length	
ml	ml	± ml	± 10 mm	
0,5	0.01	0.006	360	1 9.272 016
1	0.01	0.007	360	1 9.272 017
1	0.1	0.007	360	1 9.272 018
1***	0.01	0.007	360	1 9.272 027
2**	0.01	0.010	360	1 9.272 029
2	0.02	0.010	360	1 9.272 019
2	0.1	0.010	360	1 9.272 020
2***	0.02	0.010	360	1 9.272 028
5***	0.05	0.030	360	1 9.272 021
5***	0.1	0.030	360	1 9.272 022
10***	0.1	0.05	360	1 9.272 023 1
20***	0.1	0.10	360	1 9.272 024
25***	0.1	0.10	450	1 9.272 025
50* ***	0.5	0.2	450	1 9.272 026



Graduated pipettes, Class AS, USP, AR-Glas®, blue graduation, type 2



BRAND

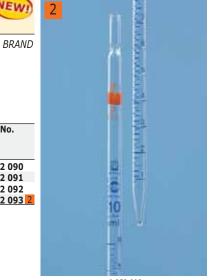
BLAUBRAND®, class AS, nominal volume at the top, DE-M marking, AR-Glas®, DIN EN ISO 835. Type 2, total delivery. Calibrated to deliver (TD, EX). Waiting time 5 seconds. Ring mark and inscriptions in highly contrasting blue enamel. Incl. USP batch certificate.

On request also available with USP individual certificate.

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

Volume	Grad.	Tolerance	Overall length		PK Cat. No.
ml	ml	± ml	± 10 mm		
1*	0.01	0.007	360		1 9.272 090
2	0.02	0.01	360	A	1 9.272 091
5	0.05	0.02	360		1 9.272 092
10	0.1	0.03	360		1 9.272 093 2

^{*} Error limit USP ±0.01ml



9.272 093

Graduated pipettes, BLAUBRAND®, partial delivery, blue graduations, type 1

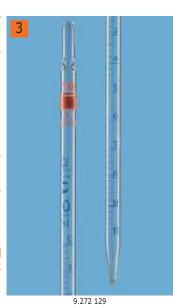
AR-Glas®. DE-M marking. DIN EN ISO 835. Type 1 (Zero at top). Calibrated to deliver (TD, EX). Waiting time 5 seconds. Ring mark and and inscriptions in high contrast blue enamel.

All BLAUBRAND® graduated pipettes are supplied with batch number and one batch certificate per manufacturer's outer pack (up to 10ml: 12 pipettes, 25 ml: 6 pipettes). Also available with individual works, USP, or DAkkS (former DKD) calibration certificate on request.

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

Volume	Graduations	Tolerance	Overall length	PK Cat. No.
ml	ml	± ml	± 10 mm	
0.5	0.01	0.006	360	1 9.272 121
1	0.01	0.007	360	1 9.272 122
2*	0.01	0.010	360	1 9.272 124
2	0.02	0.010	360	1 9.272 125
5**	0.05	0.030	360	1 9.272 127
10**	0.1	0.050	360	1 9.272 129 3
25**	0.1	0.100	450	1 9.272 131

^{*} in completion to ISO, not with conformity certificate



^{*} Supplementary to ISO.

^{**}Supplementary to ISO, not DE-M marked ***Cotton plugged

^{**}Cotton plugged

Pipettes/Graduated pipettes



Graduated pipettes, BLAUBRAND®, class A, conformity certified, blue graduations

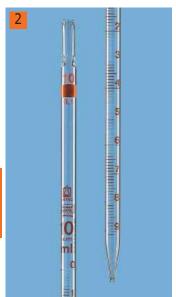
AR-Glas®. In addition to DIN 12689. DE-M marking. Length 360 mm.

Calibrated to contain (TC, IN). Graduations and inscriptions in high contrast blue enamel.

An excellent combination of resistance and readability. All BLAUBRAND® bulb pipettes are supplied with batch number and one batch works certificate per pack unit. Individual works or DAkkS (former DKD) calibration certificates are available - details on request.

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

Volume	e Graduations	Tolerance	Overall length	PK Cat. No.
ml	ml	± ml	± 10 mm	
0.1	0.001	0.001	360	1 9.272 102 1
0.2	0.002	0.002	360	1 9.272 104



9.272 077

Graduated pipettes, Class B, AR-Glas®, amber graduations, type 3

SILBERBRAND Eterna. DIN EN ISO 835. Type 3 (zero at top).

BRAND

Hirschmann

BRAND

Graduations and inscriptions in Eterna permanent amber diffusion stain. Adjusted to EX.

Volume	Grad.	Tolerance	Overall length	PI	Cat. No.
ml	ml	± ml	± 10 mm		
0.5	0.01	0.006	360		1 9.272 069
1	0.01	0.010	360		1 9.272 070
1**	0.01	0.010	360		1 9.272 086
1	0.1	0.010	360		1 9.272 071
2*	0.01	0.015	360		1 9.272 072
2	0.02	0.015	360		1 9.272 073
2**	0.02	0.015	360		1 9.272 089
2	0.1	0.015	360		1 9.272 074
5**	0.05	0.05	360		1 9.272 075
5**	0.1	0.05	360		1 9.272 076
10**	0.1	0.08	360		1 9.272 077 2
20**	0.1	0.150	360		1 9.272 078
25**	0.1	0.150	450		1 9.272 079

^{*} Supplementary to ISO. **Cotton plugged

9.272 373

Graduated pipettes, AR-glass®, class B, amber stain graduation, type 3

EX (TD) calibrated. Tolerances better than class B requirements. With durable amber stain graduation, short line, graduated to tip, zero on top, type 3, acc. to DIN EN ISO 835. From 5ml with cotton plug end as standard.

Volume	Grad.	Tolerance	Overall length	PK Cat. No.
ml	ml	± ml	± 5 mm	
0.5	0.01	0.0075	360	1 9.272 366
1	0.01	0.01	360	1 9.272 367
1	0.1	0.01	360	1 9.272 368
2*	0.01	0.015	360	1 9.272 376
2	0.02	0.015	360	1 9.272 369
2	0.1	0.015	360	1 9.272 370
5	0.05	0.045	360	1 9.272 371
5	0.1	0.045	360	1 9.272 372
10	0.1	0.075	360	1 9.272 373 3
20	0.1	0.15	360	1 9.272 374
25	0.1	0.15	450	1 9.272 375
50*	0.2	0.3	450	1 9.272 377

* Supplementary to DIN.

E & OE. www.wenk-labtec.com

850

Graduated pipettes for tissue culture, clear glass, amber stain graduation

EX (TD) calibrated. Short form. Main point ring graduation. Specially for tissue culture and working on cleanroom benches. With durable amber stain graduation. Zero to the tip, cotton plugged (8mm outer diameter). With mouth piece for cotton plug.

Hirschmann

Volume	Grad.	Tolerance	Overall length	PK Cat. No.
ml	ml	± ml	± 3 mm	
1	0.1	-	230	1 6.080 498
2	0.1	-	230	1 6.090 340
5	0.1	-	230	1 6.080 523 1
10	0.1	-	230	1 6.510 172
25	0.2		230	1 6 510 335



Graduated pipettes FORTUNA®, with suction piston, AR-Glass, class A, blue graduations

With permanent, amber, enamelled graduations. Tolerances similar to class A. Graduated pipettes with blue enamelled graduations are also available on request.

Poulten & Graf

Capacity	Grad.	Tolerance	A 4/07	PK Cat. No.
ml	ml	± ml		
1	0.01	-		1 9.273 301
2	0.02	-		1 9.273 302
5	0.05	-		1 9.273 305
10	0.1	-	~ 1 V	1 9.273 310 2
20	0.1	-		1 9.273 320
25	0.1	-		1 9.273 325
50	0.2	-		1 9.273 350
100	1.0	-		1 9.273 399



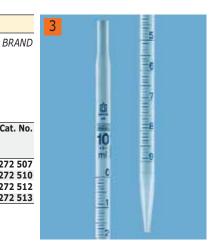
3 Graduated pipettes, PP, blue graduations

Highly transparent. Streak resistent. With blue graduations and markings. Particularly suitable for education and for applications where glass pipettes should not be used. Calibrated for delivery (EX).

Exposure to temperatures up to 60°C will not cause permanent exceeding of tolerance limits.

Cleaning below 60°C is recommended to preserve graduations and inscriptions.

Capacity	Graduations	Tolerance	Overall length	PK	Cat. No.
ml	ml	± ml	± 10 mm		
1	0.1	0.02	300	1	9.272 507
2	0.1	0.02	300	1	9.272 510
5	0.1	0.05	330	1	9.272 512
10	0.1	0.1	330	1	9.272 513



8. Liquid Handling **Pipettes/Pasteur pipettes**



LLG-Pasteur pipettes, Soda-lime glass

Single use. With uniform shape and length. With long drawn, 1.1mm diameter fine tip, 20mm suction tube and constriction for tight fitting of cotton wool plugs. External diameter: 7.1mm. Please order Pipette teats separately.

Length	PK	Cat. No.
mm		
150	1000	9.411 015
230	1000	9.411 020



Pasteur pipettes, Soda-lime-glass

ISO 7712. Long drawn-out capillary tip. Suction end with constriction for a cotton plug.

(NEW!) **BRAND**

Capacity	Length			PI	K	Cat. No.
ml	mm					
2.0	145		4	25	0	7.020 294
2.0	225			25	0	7.020 295

LLG-Pasteur Pipettes, PE

Manufactured from transparent PE. Sterile or non-sterile. Graduated.

Capacity	Туре	Length		PK Cat. No.
ml		mm		
1.0	non-sterile	150		00 9.401 081
3.0	non-sterile	150		00 9.401 080
1.0	sterile, single wrapped	150	1	00 9.401 085
3.0	sterile, single wrapped	150	1	00 9.401 084



Pipettes, Pasteur, PE

For transfer of liquids. Resitant against almost all acids. Soft and elastic bulb.

Туре	Capacity	Length	PK	Cat. No.
<u> </u>	ml	mm		
Ultra Pastette® non-graduated, non-sterile	1.0	63	500	9.271 986
Mini Pastette® non-graduated, non-sterile	1.0	104	400	9.271 985
Capillary, grad., sterile, single wrapped*	1.0	144	500	9.411 039
Standard, without grad., sterile, single wrapped*	1.0	150	500	9.411 038
Standard, grad., non-sterile	1.0	155	500	9.411 031
Pasteur-Plast-Pipette, non sterile	1.5	230	400	7.200 111
Pasteur-Plast-Pipette, non sterile	2.0	155	500	7.631 961
Micro, without grad., non-sterile*	3.0	150	500	9.411 032
Macro, grad., sterile, single wrapped	3.0	150	500	9.411 035
Macro, grad., non-sterile	3.0	155	500	9.411 030
Jumbo Pastette® non-graduated, non-sterile	7.3	300	100	9.271 980
Standard, with ring mark, non-sterile	10.0	170	200	9.411 033
Pasteur-Plast-Pipette	10.0	300	100	6.203 402
* Total volume				



LIFE SCIENCE APPLICATIONS

Top 7 Pipettes: 4, 11, 12, 15, 16, 17, 18

Cells in Flasks and Tubes – large volume, long pipettes

subculturing, harvesting, sampling 15, 50, 100 mL tubes and flasks	17, 18
remove supernatant and media from cell cultures	17, 18
wash cells	17, 18
post-centrifugation to remove all cell layers	17, 18

Isolating cells - large aperture pipette

prevent cells from	4
getting stripped when	
removed or transferred	
triturate cells	4
isolate platelets from	4
blood and wash	

Technique Control – narrow stem and fine tips

loading gels	11, 12, 15, 16
PCR work	11, 12, 15, 16
DNA sample removal	11, 12, 15, 16
feed hybridomas	11, 12, 15, 16
protein assays	11, 12, 15, 16
lipid extractions	11, 12, 15, 16
atomic absorption spectroscopy-reagent prep	11, 12, 15, 16
dropwise additions to culture plates	11, 12, 15, 16

Eliminate Steps – large bulb, narrow stem Sedi-Pet

reaction chamber	15
storage ampule	15
portable aliquoting	15
pre-mix, collect, heat-seal, freeze,	15
store, or incubate and dispense:	

- reagents buffer solutions
- protozoa, nematode larvae, marine eggs, seeds
- anti-serum urine

INDUSTRIAL RESEARCH AND TESTING

Top 10 Pipettes: 3, 5, 7, 8, 9, 11, 12, 16, 17,

Chromatography

using 1 mL auto-sampler vials using 2mL 7, 12 auto-sampler vials layering in columns / 17, 18 transfers in columns loading gels 11	sample preparation for: LC, GC, HPLC, TLC				
auto-sampler vials layering in columns / 17, 18 transfers in columns			11,	16	
transfers in columns			7,	12	
loading gels 11			17,	18	
		loading gels		11	

Viscous liquid samples and transfers

creams	4
oils	4
perfumes	4
beverages	4
industrial slurries	4
paints	4
food	4

Field Testing

16, 18
16, 18

electrode fill solutions Reagent Handling

remove and replace

portable ampule	16
spreading and mixing	3
slide tests	8

CLINICAL APPLICATIONS

Top 7 Pipettes: 4, 8, 9, 14, 16, 17, 18

Blood Banking

-	
rapid transfers	8
(3.5 cc's in one squeeze)	
narrow barrel fits tubes	8
and donor bag tubing	
controlled drop size	8
calibrated transfers	8

Remove, Dispense Small Volumes

remove and separate serum and blood	9 and other fine tips
dispense small drops - pediatric samples - load hemocytometers	9 and other fine tips
transfer in and out of multi-well plates	9 and other fine tips

Sedimentation and Storage

blood sedimentation	14, 16
access to Wintrobe tubes	16

Bottle Sampling

, ,		
blood culture bottles	17,	18

Funnels / Filters / Scoops

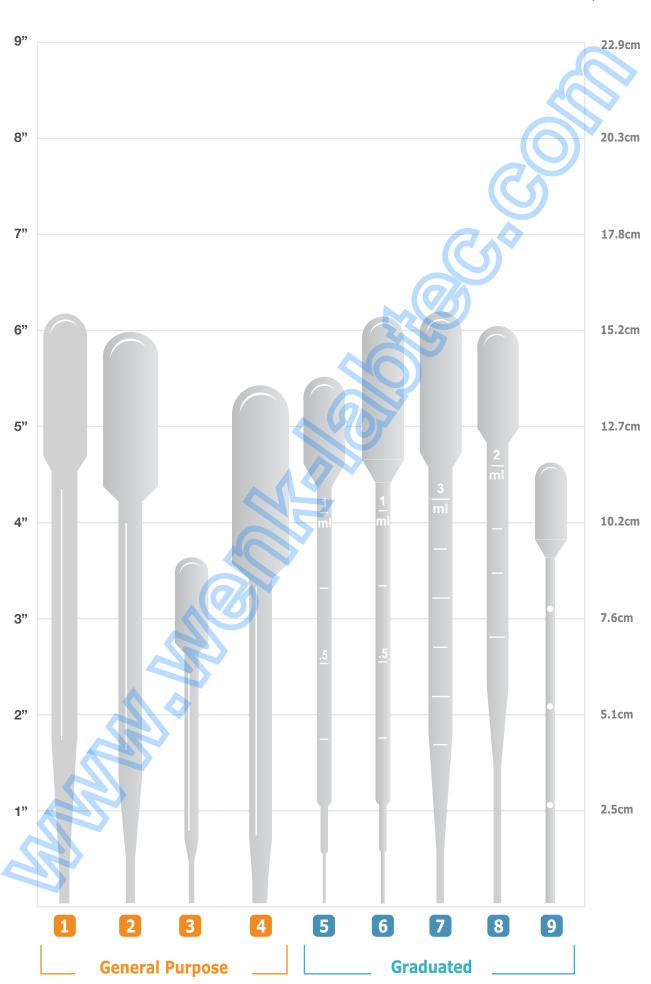
cut bulb in half and insert filter	
cut bulb at angle for scoop	



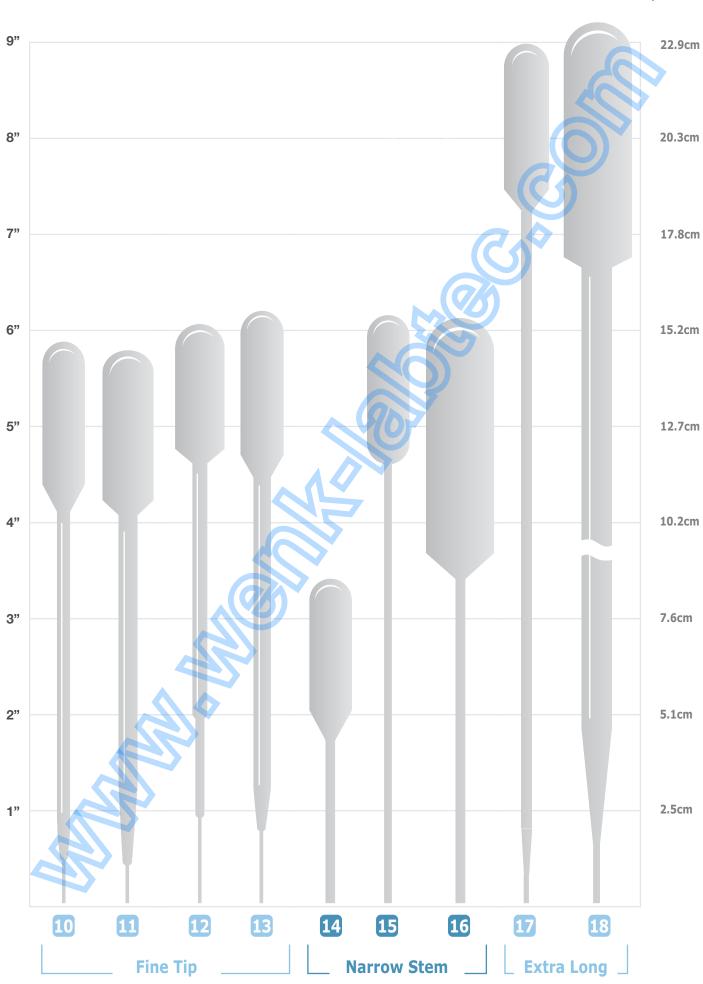
A Thermo Fisher Scientific Brand



12"/ 30.0cm



12"/ 30.0cm



8. Liquid Handling Pipettes/Pasteur pipettes

General Purpose and Thermo Scientific™ B/B Pet™ Pipettes

Key	Product Description	Length (cm)	Stem Diameter (mm)	Overall Capacity (mL)	Bulb Draw (mL)	Drops per mL	PK	Cat. No.
1	General Purpose Standard	15.6	7.9	7.7	3.2	20	500	4.653 952
2	General Purpose Large Bulb	15.1	6.1	8.0	4.6	20	400	4.653 961
3	General Purpose 3"	8.7	4.8	1.7	0.9	25	500	4.654 050
4	62 μL Large Aperture Pipette	13.7	6.1	9.3	4.8	-	250	4.654 086

Graduated Pipettes

Key	Product Description	Length (cm)	Stem Diameter (mm)	Overall Capacity (mL)	Bulb Draw (mL)	Drops per mL	PK	Cat. No.
5	Graduated 1 mL Small Bulb	14.0	4.7	3.9	2.2	25	500	4.653 964
6	Graduated 1 mL Large Bulb	15.5	4.6	5.8	3.4	25	500	4.653 969
7	Graduated 3 mL Large Bulb	15.5	7.9	7.5	3.2	20	500	4.653 977
8	Graduated 2 mL (Blood Bank)	15.2	7.1	4.8	1.8	24	500	4.654 055
9	Graduated 0.3 mL (Pediatric)	11.6	3.0	1.5	0.8	21	500	4.654 059

Fine Tip Pipettes

Key	Product Description	Length (cm)	Stem Diameter (mm)	Overall Capacity (mL)	Bulb Draw (mL)	Drops per mL	PK	Cat. No.
10	Fine Tip Standard	14.7	4.6	5.8	3.3	55	500	4.653 993
11	Fine Tip Large Bulb	14.7	6.1	8.7	4.8	45	400	4.654 002
12	Extended Fine Tip Large Bulb	15.3	3.0	5.0	3.3	50	250	4.653 999
13	Extended Fine Tip Standard	15.7	4.6	5.8	3.5	50	500	4.654 011

Narrow Stem Thermo Scientific™ SEDI-PET™ and Q-Pet™ Pipettes

Key	Product Description	Length (cm)	Stem Diameter (mm)	Overall Capacity (mL)	Bulb Draw (mL)	Drops per mL	PK	Cat. No.
14	SEDI-PET Short Stem Large Bulb	8.5	2.5	4.0	3.0	25	500	4.654 019
15	SEDI-PET Standard	15.5	2.5	4.6	3.3	25	500	4.654 024
16	SEDI-PET Large Bulb	15.5	3.0	15.0	8.0	19	250	4.654 028

Extra Long Pipettes

Key	Product Description	Length (cm)	Stem Diameter (mm)	Overall Capacity (mL)		Drops per mL	PK	Cat. No.
17	Extra Long 9"	22.5	5.0	6.0	2.3	25	400	4.654 033
18	Extra Long 12"	30.0	8.6	23.0	7.3	20	100	4.654 041

Note: Sterile pipettes and other sizes available on request.

1

LLG-Serological pipettes type 1, PS, paper/plastic peel, sterile

- 1 ml, 5 ml, 10 ml, 25 ml and 50 ml pipettes contain a bi-directional secondary graduation scale for precise dosing
- Also available as short-pipettes (5 ml, 10 ml and 25 ml) or wide-mouth pipette (10 ml)
- Increased volume capacity through extra graduations
- Color coded ringmark for easy volume identification
- Single packed in easy-to-open plastic/paper packaging
- Plugged
- Pyrogen-free
- Sterile



Volume	Grad.	Colour code	Negative		PK Cat. No.
			graduations		
ml	ml		up to		
1	1/100	yellow	0,3	5	9.380 440
2	1/50	green	0,6	5	9.380 441
5	1/10	blue	3	2	7.930 401
10	1/10	orange	3	2	00 6.268 240
10	1/10	orange (wide mouth)	3	2	9.380 442
25	2/10	red	8	1	7.930 403
50	5/10	purple	10	1	00 9.380 443
5	1/10	blue (short form)	3	2	00 6.265 881
10	2/10	orange (short form)	10	1	50 6.265 882
25	5/10	red (short form)	9	1	00 6.265 883



LLG-Serological pipettes type 2, PS, paper/plastic peel, sterile



- Single-piece pipette-bodies (except 50 ml pipette)
- 5 ml, 10 ml, 25 ml and 50 ml pipettes contain a bi-directional secondary graduation scale for precise dosing
- Increased volume capacity through extra graduations
- Color coded plug for easy volume identification
- Single packed in easy-to-open plastic/paper packaging
- Plugged
- Pyrogen-free
- Sterile

Volume ml	Grad. ml	Colour code	Negative graduations up to	PK	Cat. No.
1	1/100	yellow	0.3	500	6.266 995
2	1/50	green	0.4	500	6.266 996
5	1/10	blue	3	250	6.266 997
10	1/10	orange	3	200	6.266 998
25	2/10	red	2	100	6.266 999
50	5/10	purple	9	100	6.267 100





4 5

LLG-Serological pipettes Type 3, PS, plastic/plastic pack, sterile



- Specially suited for use in clean rooms
- Single packed in easy-to-open plastic/plastic packaging
- Increased volume capacity through extra graduations
- Color coded for easy volume identification
- Plugged
- Pyrogen-free
- Sterile

Volume		Colour code	Negative graduations	PK	Cat. No.
ml 1	0.01	clear	up to 0.3	1000	6,268 099
2	0.01	clear	0.3	1000	6.268 100
5	0.1	blue	2.0	200	6.268 101
10	0.1	orange	3.0	500	6.268 102
25	0.2	red	10.0	200	6.268 103
50	0.5	purple	10.0	200	6.268 104





Pipettes/Serological pipettes-Pipette balls



Serological pipettes, PS, paper/plastic peel or bulk package, sterile

- Single packed in easy-to-open paper/plastic packaging or bulk package
- Increased volume capacity through extra graduations
- Color coded for easy volume identification
- Plugged
- Pyrogen-free
- Sterile

Thermo Scientific

Deutsch & Neumann

Paper/Plastic peel

Capacity	Grad.	additional scale	Colour code	PK	Cat. No.
ml	ml	ml			
1	1/100	0.3	0.02	1000	9.380 453
2	1/100	0.3	0.04	500	9.380 454
5	1/10	2	0.10	200	9.380 455
10	1/10	3	0.20	200	9.380 456
25	2/10	10	0.50	200	9.380 457
50	2/10	10	0.75	100	9.380 458

Bulk pack

- 1 and 2ml pipettes: bulk, 50 pcs. per bag
- 5, 10, 25 and 50ml pipettes: bulk, 25 pcs. per bag

Capacity	Grad.	additional scale	Colour code	PK	Cat. No.
ml	ml	ml			
1	1/100	0.3	0.02	1000	9.380 471
2	1/100	0.3	0.04	500	9.380 472
5	1/10	2	0.10	500	9.380 473
10	1/10	3	0.20	500	9.380 474
25	2/10	10	0.50	200	9.380 475
50	2/10	10	0.75	100	9.380 476



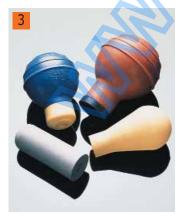
2 Pipette teats

Choice of materials as indicated. Natural rubber/Latex (NR)

Silicone (VMQ)

Styrene-butadiene-rubber (SBR)

Capacity	Material	Colour	PK	Cat. No.
ml				
1.8	NR	transparent	1	9.072 681
1.8	NR	transparent	1	6.265 727
2.0	VMQ	transparent/white	10	9.072 682
2.0	NR/SBR	red	1	9.072 683
5.0	NR	transparent	5	9.072 684
10.0	NR	transparent	3	9.072 685



3 Pipette bulbs

Rubber. For quick and easy pipetting. Colour coding to prevent confusion.

Capacity ml	Colour	PK	Cat. No.
1	Green	1	9.115 501
2	Grey	1	9.115 502
5	Yellow	1	9.115 505
10	Blue	1	9.115 506
15	Red	1	9.115 507

1 Rubber blowballs

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

Deutsch & Neumann

Туре	Capacity	Diam.	PK	Cat. No.
	ml	mm		
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 Safety pipette bulb Howorka-Ball®

Advantages:

- no rigid connection with tube
- no valves or side vent on tubes
- suitable for all standard tube diameters, including pipettes, burettes, filter tubes etc.
- no unstable air pockets
- long operational life due to durable components
- Easily cleaned and steam sterilized if contaminated with liquids

Capacity ml	X	PK	Cat. No.
20		1	9.273 826
50		1	9.273 827



3 Safety pipette bulb Flip™

Fits virtually all pipette sizes.

Only two valve operation points.

With automatic vent valve that can be removed for cleaning.

Туре	1	PK	Cat. No.
Flip™		1	9.273 838



4 Safety pipette bulb, rubber

Chemically resistant rubber. With valve	s for suction,	emptying and air release, controlled	Deutsch &
by thumb and finger pressure.			

4			
Type	Figure	PK	Cat. No.
**			
Standard, for pipettes up to 8mm diameter	1	1	9.273 836
Universal, for most pipettes	2	1	9.273 837
Standard, multicolor black/red/yellow	-	1	6.223 504



5 Pipette stand, horizontal, PP

Dimensions mm 240 x 180 x 290

Pipette stand for 12 pipettes, horizontal is made from moulded polypropylene which is autoclavable. On each side, 6 pipettes (longer than 22 cm) can be stored horizontally. Easy to clean.

PK	Cat. No.	
1	9.273 896	



Isolab

Isolab

Kartell

Kartell

Kartell

Kartell

8. Liquid Handling

Pipettes/Pipettes Accessories

















Pipette stand vertical, PP

Pipette stand, vertical is made from moulded polypropylene. This stand can hold up to 94 pipettes and rotates on a central vertical axis for easy

selection of any particular pipette. The base plate has a raised edge which catches dripping liquids.

Туре	PK	Cat. No.
Disable should be should be should		0 272 005
Pipette stand "vertical"	1	9.273 895

Pipette tray, PVC

PVC. For pipettes of all sizes. Can accommodate 7 pipettes with overall stem diameter not exceeding 20mm longitudinally or 16 pipettes with stem diameter not exceeding 10mm laterally.

Width Length Height Cat. No. mm mm mm 220 280 39 9.200 392

Pipette tray, PVC

PVC. Tidy tray. With 4 long compartments for approx. 30 graduated pipettes (1ml to 20ml).

Width Height Cat. No. Length mm mm mm 300 420 30 9.200 394

Pipette baskets, PE-HD

Cylindrical, with handle.

Height PK Cat. No. For pipette Bottom length diam. mm mm mm 360 9.273 980 460 145 645 9.273 985 600 145 870 9.273 990

Pipette storage container

With lid. Base dia. x height: 130 x 430mm, int. dia.: 83mm. Suitable for dust-proof storage of pipettes up to 400mm long.

Type Bottom Height Cat. No. diam. mm mm With lid (PP container, HDPE lid) 9.273 900

Pipette soaking jar, PE-HD

Kartell

Kartell

For pipette	Int.	Height	PK	Cat. No.
length	diam.			
mm	mm	mm		
250	125	250	1	9.273 928
500	160	500	1	9.273 920
650	160	650	1	9.273 925

Pipette rinsers, PE-HD

For easy and gentle cleaning of pipettes using the repetitive siphon principle. The complete rinsing system comprises rinser, soaking jar and pipette basket. Water flow should be adjusted to approx. 2 litres/min. Please order soaking jar and pipette basket separately.

For pipette length	Capacity	Int. diam.	Height	PK	Cat. No.
mm	Litres	mm	mm		
460	13	150	740	1	9.409 238
600	17	150	1000	1	9.409 239

Further pipette cleaning devices please see our chapter 11

8. Liquid Handling Pipettes/Pipettes Accessories

1 Rack for serological pipettes

Ideal for your serological pipettes. Use as individual units, or click together horizontally or vertically. Magnets on both sides of units connect safely to metal surface such as file cabinets, fume hoods, refrigerators, and freezers. Angled shelves store your 0.1ml to 50ml pipettes within arm's reach for use. Protective lid encloses the unit to prevent dust build up. Colour: 3 different shades of blue. Dimensions (L x W x H): 301mm x 100mm x 127.5mm each.

Туре	PK	Cat. No.
Cargo Manual Pipette Rack	3	9.273 930



Variable pipette boxes

Comprising two, sliding aluminium sections which can be gently pressed together in a telescopic fashion

Isolab
to fit the length of the pipettes to be sterilized. This means that only one container size for 280 to 420 mm long
standard pipettes and one for 145 to 235 mm long short or pasteur pipettes are required. 2mm thick silicone rubber
pad prevents damage to pipettes when loading and transporting. Silicone rubber pad - please order separately.

Туре	Variable length	Int. diam.	M	PK	Cat. No.
	mm	mm			
Pipette box	145 to 235	60		1	9.010 801
Pipette box	280 to 420	60		1	9.010 800
Silicone pad		58		1	9.010 770



3 Pipette sterilizing boxes

Cylindrical. 18/10 stainless steel. With silicone pad in base and lid. Rotating the lid exposes or hides the lid perforations. Sterilizable up to 205°C .

Bochem	

Bochem





Pipette sterilizing boxes, square

Square section. Stackable.18/10 stainless steel. With silicone pad in base and lid. Box W x D: 70 x 70 mm. Sterilizable up to 205° C.









Pipettes/Pipettes Accessories-Capillary tubes

Pipette Box, Aluminium



Pipette boxes with optimized easy handling in everyday work. The cylindrical pipette boxes are the best option for autoclaving various glass items with a length from 150 to 480mm like mixing rods, pasteur, volumetric and graduated pipettes.

Ratiolab

BRAND

BRAND

- autoclaving: the new construction guarantees the entrance of steam into the container and optimizes the process of autoclaving
- opening and closing: soft sliding performance of top section onto the base section makes working easy
- base and top section are filled with a silicon layer at the bottom as a shock absorber to protect the glass items from splintering
- the sterilizing pipette boxes are available in 4 various lengths

Description	Length	PK	Cat. No.
	mm		
Pipet box aluminium	150-200	1	6.266 679
Pipet box aluminium	235-305	1	6.266 680
Pipet box aluminium	315-385	1	6.266 681
Pipet box aluminium	315-485	1	6.266 682









Disposable micropipettes ring marked, intraMARK

BLAUBRAND®. DIN ISO 7550.

DE-M marking from 5µl upwards, in accordance with German Weights and Measure Regulations. Calibrated to contain (IN). Colour code according to ISO for clear identification.

Length 125 mm Accuracy $\leq \pm 0.25$ %.

Precision ≤ 0.5 %.

(Capacity 5 μ l: Accuracy $\leq \pm 0.3$ %, precision ≤ 0.6 %).

CE-marked according to IVD 98/79 EG.

Marks at	Colour	PK	Cat. No.
μΙ			
1/2/3/4/5*	White	250	9.411 307
10	Orange	250	9.411 309
20	Black	250	9.411 318
25*	White - white	250	9.411 322
40*	Red - red	250	9.411 327
20 + 40*	Red - red	250	9.411 328
50	Green	250	9.411 333
100	Blue	250	9.411 344
50 +100	Blue	250	9.411 345
200	Red	200	9.411 357



Disposable micropipettes, delbrück pattern, intraEND

BLAUBRAND®. DIN ISO 7550. DE-M marking. Volume defined by end-to-end filling. Calibrated to contain (IN). Sodium heparinised. Ideal for blood capillary sampling.

With a length of only 30mm the pipette can be placed directly into the microcentrifuge tube where it releases the sample during centrifugation. CE-marked according to IVD directive 98/79 EC.

Accuracy: $\leq \pm 0.5$ %. Precision: $\leq 1 \%$.

Capacity	Length	PK	Cat. No.
μl	mm		
20	30.0	100	9.411 242
50	30.0	100	9.411 246

8. Liquid Handling Pipettes/Capillary tubes

Pipetting aid, intraEnd

For BLAUBRAND® intraEnd micropipettes.

BRAND

Consists of the PET plastic tube, silicone adapter, and TPE suction bellows with venting hole.

Туре	PK	Cat. No.
Pipetting aid, intraEnd	10	9.411 440



2 Pipette holders

For intraEND micropipettes.

BRAND

• •		
Туре	PK	Cat. No.
Pipette holders	1	9.411 260



Hirschmann

3 Capillary pipettes, ringcaps®

Disposable capillary pipettes with ring marks. ringcaps® are exclusively made out of DURAN® glass (CE acc. IVD 98/79 EC, ISO 7550). The accurately designed ring mark guarantees precise determination of volume, the international color code on every single micropipette prevents the risk of confusion.

Unit = 1 box of 250 pieces.

Version 100 + 200 = 1 bos of 100 pieces.

Advantages:

- No risk of cross contamination owing to single use
- DURAN® glass
- Handy length of 125mm
- DE-M marking in accordance with the applicable weights and measures regulations

Туре	Capacity	Accuracy	Precision	PK	Cat. No.
		max. vol.	max. vol.		
	μl	(≤ ± R%)	(≤ CV%)		
5 marks	1+2+3+4+5	0.30	0.6	250	9.600 105
1 mark	10	0.25	0.5	250	9.600 110
1 mark	20	0.25	0.5	250	9.600 120
1 mark	25	0.25	0.5	250	9.600 125
1 mark	40	0.25	0.5	250	9.600 140
1 mark	50	0.25	0.5	250	9.600 150
1 mark	100	0.25	0.5	250	9.600 199
1 mark	200	0.25	0.5	100	9.600 122
2 marks	5 + 10	0.25	0.5	250	9.600 210
2 marks	20 + 40	0.25	0.5	250	9.600 240
2 marks	50 + 100	0.25	0.5	250	9.600 299
2 marks	100 + 200	0.25	0.5	100	9.600 222





4 Micro capillaries

These disposable micro capillaries fill automatically from end to end. Their accuracy is better than 1%. A capillary tube holder is supplied with each pack. Also contains a small bulb with aperture which can be inserted into capillary and used as an effective support for filling and emptying tubes.

Capacity	PK	Cat. No.
μl		
0.5	100	9.020 192
1.0	100	9.020 193
2.0	100	9.020 194
5.0	100	9.020 195
10.0	100	9.020 196



8. Liquid Handling Pipettes/Capillary tubes

Capillary pipettes, minicaps®, end-to-end

Minicaps® micro capillary pipettes, end-to-end. Available in sodium-heparinized and non-heparinized. Conformity certified. Acc. the German "Eichordnung". With batch number on the packaging. Made in Germany out of original SCHOTT DURAN®.Acc. ISO 7550. CE acc. IVD 98/79 EG.

Hirschmann

Advantages:

- Error-free filling end-to-end
- Only 30mm to 32mm long
- Easy-to-remove, color-coded dispenser cap
- Conformity certified in accordance with the applicable weights and measures regulations

Supplied in drums of 100 within an outer pack of 1000.



Disposable micro capillary pipettes, DURAN®, minicaps® end-to-end acc. "Prof. Dr. Delbrück"

minicaps® - disposable micro capillary pipettes, end-to-end. Conformity certified. With batch number on packaging. Made out of original SCHOTT DURAN®.

Hirschmanr

Suitable for the analysis acc. to Prof. Dr. Delbrück. Sodium-heparinized, acc. ISO 7550. CE acc. IVD 98/79 EC. Packaging unit: 100 minicaps in each glass cartridge, 10 cartridges and a pipette filler.

Capacity	Length	Accuracy max. vol.	Precision max. vol.	PK Cat. No.
μl	mm	(≤ ± R%)	(≤ CV%)	
20	30 ±0.5	0.5	1.0	100 9.411 254 1
40	30 ± 0.5	0.5	1.0	100 9.411 256
50	30 ±0.5	0.5	1.0	100 9.411 258

Other sizes on request.



2 Disposable Capillary pipettes, DURAN®, minicaps® end-to-end

Non-heparinized. Conformity ceritfied ISO 7550, CE acc. IVD 98/79 EC.

Hirschmann

Capacity	Length	Accuracy	Precision	PK	Cat. No.
		max. vol.	max. vol.		
μl	mm	(≤ ± R%)	(≤ CV%)		
0.5	30 - 32	0.5	1.0	100	9.411 265
1	30 - 32	0.5	1.0	100	9.411 266
2	30 - 32	0.5	1.0	100	9.411 267
3	30 - 32	0.5	1.0	100	9.411 268
4	30 - 32	0.5	1.0	100	9.411 270
5	30 - 32	0.5	1.0	100	9.411 271
10	30 - 32	0.5	1.0	100	9.411 273
20	30 ± 0.5	0.5	1.0	100	9.411 274
25	30 - 32	0.5	1.0	100	9.411 275
30	30 - 32	0.5	1.0	100	9.411 276
40	30 ± 0.5	0.5	1.0	100	9.411 277
50	30 ± 0.5	0.5	1.0	100	9.411 279
100	100	0.5	1.0	100	9.411 280



Disposable Capillary pipettes, DURAN®, minicaps® end-to-end, Na-hep

Sodium heparinized. Conformity certified, ISO 7550 CE acc. IVD 98/79 EC.

Hirschmann

Capacity	Length	Accuracy max. vol.	Precision max. vol.	PK	Cat. No.
μl	mm	(≤ ± R%)	(≤ CV%)		
5	30 to 32	0.5	1.0	100	9.411 252
10	30 to 32	0.5	1.0	100	9.411 253
25	30 to 32	0.5	1.0	100	9.411 255
Other cizes ava	ilahle				



Haematocrit capillary tubes

Disposable capillaries for blood centrifugation tests, length 75mm, nominal volume approx. 75µl, outer diameter 1.42mm - 1.68mm, inner diameter 1.07mm - 1.23mm, with heavy wall thickness and color-coded acc. to DIN 12 772, CE acc. IVD 98/79 EC.

Hirschmann

Туре	Colour	PK	Cat. No.
Plain	blue	1000	6.200 639 4
Sodium-heparinized	red	1000	7.200 409 5

8. Liquid Handling

Pipettes/Capillary tubes-Pipette controllers

Micro-haematocrit capillary tubes

Comply with BS 4316-68 and DIN ISO 12 772 specifications. For use in microhaematocrit centrifuges. Without calibration marks.

Heparinised: For capillary blood sampling. The entire inner surface is coated with sodium-heparinate. Code: red.

Non-heparinised: To determine heparinised venous blood. Code: blue.

CE-marked according to IVD 98/79 EG.

Length: 75 mm ±0.5 mm Wall thickness: approx. 0.2 mm Internal diameter: 1.1 to 1.2 mm External diameter: 1.5 to 1.6 mm

Туре	PK	Cat. No.
Heparinised	100	9.411 215
Non-heparinised	100	9.411 220



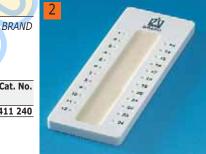
Haematocrit sealing compound

Non-drying vinyl plastic compound on a plastic plate.

For rapid and safe sealing of micro-haematocrit capillaries.

24 capillaries can be placed upright in the numbered storage places on each side of the plate. CE marked.

Туре		PK	Cat. No.
Haematocrit sealing compound		10	9.411 240



Micropipette controller

For disposable pipettes with micro ring mark and many other small glass pipettes up to 1ml. Autoclavable (121°C). The micropipette controller reduces risk of infection.

Contaminated disposable micropipettes can be removed using the integral ejection button.

Туре				7	PK Cat. No.
Micropipette controller	4		7		1 9.288 200
Spare suction system					3 9.288 201



Pipette controllers, micro-classic

Specially designed for IVF laboratory applications. Comfortable and reliable. Thanks to its ergonomic design and easy handling, the micro-classic pipette controller provides the comfort needed for difficult work under the microscope. Suitable for disposable micropipettes with ring marks and other microlitre volume pipettes with a capacity up to 1ml.

Suitable for left, or right-handed operation. The adapter and suction tube are autoclavable at 121°C.

Description	V	PK	Cat. No.
Micro-classic, complete, with 2 spare tubes		1	9.281 080
Spare adapter with suction tube		3	9.281 085



Macropipette controllers

The handwheel allows precise suction of the liquid into the pipette with one hand. Isolab The handwheel which enables the suction piston is designed for easy operation by using only the thumb. When the wheel stops, the piston remains in the desired position. The liquid can be blown out by pressing the piston back or allowed to flow out by setting the lateral switch to "Ex". A slight pressure applied to the discharge lever opens the valve and lets the liquid flow out easily

For	PK	Cat. No.
Pipette volume up to 2ml	1	4.008 322
Pipette volume up to 10ml	1	4.008 323
Pipette volume up to 25ml	1	4.008 324



8. Liquid Handling Pipettes/Pipette controllers



1 Maxi pipette filler, 1 to 100ml

Large capacity bulb which works perfectly with all pipette sizes from 1ml up to 100ml. First squeeze the silicone bulb and the thumb lever controls both the aspirate and dispense modes. Incorporates central button to blow out the residual liquid into the pipettes

Isolab

Туре	PK	Cat. No.
Maxi pipette filler	1	6.238 525



Pipette controllers macro 0.1 to 200ml

(NEW!

One single macro pipette controller covers the entire range of bulb and graduated pipettes from 0.1 to 200 ml.

BRAND

BRAND

The conical silicone adapter offers a secure fit for the different diameters. The unique valve system allows for easy compression of the newly designed bellows. The spring loaded lever enables an even more sensitive filling and delivery of liquids. The meniscus is easily adjustable. The unit is fully autoclavable at 121°C (2 bar) according to DIN EN 285. A hydrophobic membrane filter protects the system from liquid penetration.

Supplied with: pipette controller incl. 3 µm spare membrane filter.

Pipette Package includes pipette controller macro, grey, 3 graduated pipettes 5ml, 3 graduated pipettes 10ml, plastic cover

Туре	PK	Cat. No.
Pipette controller macro, grey	1	9.273 850
Pipette controller macro, magenta	1	9.273 853
Pipette controller macro, green	1	9.273 851
Pipette controller macro, blue	1	9.273 852
Spare hydrophobic membrane filter	1	9.273 868
Valve assembly	1	9.273 860
Spare adapter, silicone	1	9.273 861
Pipette Package	1	9.273 970





3 Pipette controller accu-jet® pro

- Exceptionally sensitive meniscus control, even with low-volume pipettes
- Light weight (190g) and smoothly rounded grip ensure comfort and minimize fatigue
- Securely holds all pipettes from 0.1ml to 200ml
- Active vapour exhaust, check valve and filter help protect instrument from liquids and vapours
- Additional battery compartment cover (included) allows instrument to be inverted on the bench to avoid contamination of the pipette adapter.
- 8 hours of continuous pipetting (with a 10ml pipette) on each charge; LED low-battery signal; instrument operates during recharge.

Items supplied: accu-jet® pro, incl. wall support, 2 membrane filters 0.2µm sterile, NiMH battery pack, 2 battery compartment covers, instruction manual and 100-240V 50/60Hz power supply unit for continental Europe.

Description	PK	Cat. No.
accu-jet® pro, dark blue	1	9.281 090
accu-jet® pro, magenta	1	9.281 086
accu-jet® pro, green	1	9.281 087
accu-jet® pro, royal blue	1	9.281 088



4 Accessories for accu-jet® controller		(NEW!)
		BRAND
Description	PK	Cat. No.
NiMh-Akku battery charger only	1	9.281 096
Silicone adapter, with non-return valve (PTFE)	1	9.281 094
Membrane filter, 0.2 μm, in blister pack, sterile*	1	9.281 092
Membrane filter, 0.2 μm, in PE bag, non-sterile	10	9.281 091
Membrane filter, 3 μm in blister pack, non-sterile	1	9.273 868
Membrane filter 3 um in PF hag non-sterile	10	9.281 095

866 E & OE.

* Sterilized with ethylene oxide (ETO), SAL of 10°, with red colour code

8. Liquid Handling Pipettes/Pipette controllers

1 LLG-Electrical pipette pump Plus

This ergonomic pipette controller is lightweight, made from UV resistant material, features adjustable valves and is microprocessor controlled for reliability and accuracy. The powerful pump offers rapid yet sensitive aspiration and dispensing. Filling and dispensing speed is easily set using the same hand by pressing the large control button. The bright LED display will indicate which of the three modes has been selected, High, Low or Gravity Mode. The user labelling area enables customization and instant recognition and/or task designation. Additional features include hand neutral design, concave padded triggers, a 1ml pipette adapter to increase stability of small pipettes, a long life Li-Ion battery that allows 20 hours of continuous usage, low battery indicator and two holders as standard

- For 1-100ml glass or plastic pipettes
- Soft touch triggers
- 5 different coloured autoclavable nose pieces as standard
- Uses standard 0.45µm hydrophobic filters
- Long life, easily changeable rechargeable battery
- Sensitive and adjustable aspiration and dispensing
- Labelling area for identification
- Delivered completely with universal voltage and plug faced charger
- Comes with bench stand and magnetic/fixable wall mount





The pipetus® is ergonomically sophisticated in every detail despite most modern technology, powerful and light-weight. Fits graduated, volumetric and Pasteur pipettes from 0.1ml to 200 ml. Without reloading it can be operated up to one week.

The colour display shows the selected defaults (speed) and the current battery capacity

- Automatic inductive charge in the park station guarantees constant readiness
- Controlled pipetting by a simple push of a button
- EX/Blow out switch for precise operating
- Speed key for 5 operating speeds
- No memory effect by inserted microcontroller
- Clear colour display with permanent display
- Optimal meniscus adjustment by sensitive valve technique
- Standard relief valve against penetration of liquid
- Ergonomic design for fatigue-free serial pipetting
- Power supply 100-240V, with EU, UK, US plugs

Supplied with:

pipetus® complete with mains operated charging unit and inductive charging stand, color display with battery level indicator, 2 additional round PTFE filters, additional safety valve and wall mount.

Туре		PK	Cat. No.
ninetus®		1 9:	283 958

Pipette controllers, pipetus®, accessories		
		Hirschmann
Туре	PK	Cat. No.
Pipette holder, complete	1	9.283 970 3
Round filter set with one-sided connection	5	9.283 965 4
Spare silicone adapter	1	9.283 961
Spare safety valve	1	9.283 962 5
Charging set 230 V including inductive charging station, EU, UK, US plug	1	9.283 966
Mounting bracket	1	9.283 967
Retainer Ring, chrome	1	9.283 968 6
Pipette holder housing	1	9.283 969
Table Stand	1	9.287 859









9.283 962



E & OE. **867**

8. Liquid Handling

Pipettes/Microlitre pipettes



1 2 3 4 5 6 LLG-Digital single channel microliter pipettes

Available with fixed or adjustable volume.

Ergonomic shape for a very comfortable handling

The rounded shape and the unique soft grip of the LLG pipette ensures a safe and comfortable handling. A minimal effort is required for pipetting so that the risk of repetitive strain injuries (RSI) is reduced.

Maximum Precision and Accuracy

Thermal insulation of the internal components, using the innovative soft grip, improves the accuracy.



Universal Blow-out System

The two-step plunger operation allows reverse pipetting. This also facilitates last drop dispensing by soft plunger movements. High accuracy and precision are guaranteed.

Colour-coded push-button for quick operation

The colour code enables a quick choice of the right pipette depending of the volume to be pipetted (see corresponding column in the table below).



Easy Maintenance and Adjustment

The volume setting is easy and precise, using the push-button, even when wearing gloves. Maintenance and adjustment take only a few minutes with just one tool. (Included in delivery)

Contamination-free Pipetting

The pipette is fully autoclavable, ideal for applications where sterility is important.

Satisfaction Guaranteed

Each pipette is individually tested and calibrated twice, conforming to EN ISO 8655 and DIN 12600 Standards. A certificate is included.

Made in Germany, CE certified.



LLG-Digital single channel microliter pipettes, fix



Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Colour code	PK	Cat. No.
μl	μl	(≤ ± R%)	(≤ CV%)			
5	-	1.0	0.5	grey	1	9.277 515
10	-	1.0	0.5	grey	1	9.277 516
20	-	4.5	1.0	grey	1	9.277 517
25	-	2.5	0.6	yellow	1	9.277 518
50	-	2.5	0.6	yellow	1	9.277 519
100	-	2.5	0.6	yellow	1	9.277 520
200	-	2.5	0.6	blue	1	9.277 521
250	-	2.9	0.6	blue	1	9.277 522
500	-	2.9	0.6	blue	1	9.277 523
1000	-	2.4	0.6	violet	1	9.277 524
2000	-	2.4	0.6	violet	1	9.277 525
2500	-	2.4	0.6	violet	1	9.277 526
5000	-	2.4	0.6	turquoise	1	9.277 527
10000*	-	3.0	0.6	turquoise	1	9.277 528

LLG-Digital single channel microliter pipettes, variable

Capacity µI	Increments µI	Accuracy max. vol. (≤ ± R%)	Precision max. vol. (≤ CV%)	Colour code	PK	Cat. No.
0.1 - 2.5	0.05	1.5	0.8	grey	1	9.280 000
0.5 - 10	0.1	1.0	0.5	grey	1	9.280 001
2 - 20	0.5	4.5	1.0	grey	1	9.280 002
10 - 100*	1.0	2.8	0.8	yellow	1	9.280 003
20 - 200	1.0	2.5	0.6	yellow	1	9.280 004
100 - 1000*	5.0	2.9	0.6	blue	1	9.280 005
500 - 5000*	50.0	2.4	0.6	purple	1	9.280 006
1000 - 10000**	100.0	3.0	0.6	turquoise	1	9.280 007

^{*}Filters for pipettes available on request.

868 E &

^{** 10000}µl pipette does not have a tip ejector

1 LLG-Digital single channel microliter pipettes, Packages, variable

Package 1 Micro contains:

- a) 3 Microlitre pipettes with the volumes
- LLG-microlitre pipette 0.5 to 10µl
- LLG-microlitre pipette 10 to 100µl
- LLG-microlitre pipette 100 to 1000µl
- b) for each pipette one bag of tips
- crystal (0.1 to 10µl) 1000 tips
- yellow (10 to 100µl), 1000 tips - blue (100 to 1000µl), 1000 tips

Package 2 Macro contains:

- a) 3 Microliter pipettes with the volumes
- LLG-microlitre pipette 100 to 1000µl
- LLG-microlitre pipette 500 to 5000µl
- LLG-microlitre pipette 1000 to 10000µl
- b) for each pipette one bag of tips
- blue (100 to 1000µl), 1000 tips
- clear (100 to 5000µl), 250 tips
- clear (1000 to 10000µl), 100 tips

Package 1 Micro and 2 Macro are also available as packages with 4-place or 6-place pipette stand, made of PMMA.



Туре	PK Cat. No.
Package 1 Micro	1 9.280 008
Package 2 Macro	1 9.280 009
Package 1 Micro + 4-place-pipette stand	1 6.237 000
Package 1 Micro + 6-place-pipette stand	1 6.237 001
Package 2 Macro + 4-place-pipette stand	1 6.237 002
Package 2 Macro + 6-place-pipette stand	1 6.237 003

2 LLG-Pipette stands for single channel microliter pipettes, PMMA

White, stable plastic (PMMA), industrial grade. Pipettes are held in an ergonomic position for easy withdrawal and replacement. Adjustable heights.

Suitable for all kind of pipettes.

Description	PK	Cat. No.
for 4 pipettes	1	9.280 014
for 6 ninettes	1	9.280 011



3 4 5 LLG-Electronic single channel microliter pipettes, variable

The LLG-Electronic pipettes have been designed for maximum performance, accuracy and simple operation.

The microprocessor-based system reduces the possibility for human error. Lightweight and ergonomic controls help to reduce the risk of repetitive strain injuries which is common in manual pipetting. Attractively designed with an extraordinary finishing of parts due to high grade mould selection. That gives the LLG-Electronic Pipette its final touch.

Ingenious single operation

All software controls and functions of the LLG-Electronic Pipettes are done by one patented user-friendly innovative knob (jog-dial). No small switches and no snippy button keys as in old, conventional electronic pipettes. Each pipette can be easily selected and identified by colour coding.

Modern visual display

An innovatic OLED-Display for a graphic readout of status indicator for all functions of the new LLG-Electronic Pipettes. **Self-calibration system**

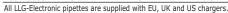
The user can calibrate the pipettor for solutions of different viscosity. The system also permanently controls all functions and indicates all errors.

Resourceful SCS-System

This system controls the piston movement of the LLG-Electronic Pipettes and guarantees highest precision and accuracy.

The LLG-Electronic Pipette is adjusted for the delivery (Ex) of its nominal volume as defined in ISO 8655.

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	PK	Cat. No.
μΙ	μl	(≤ ± R%)	(≤ CV%)		
0.2 - 10	0.01	5.0	6.0	1	9.281 050
5 - 100	0.1	2.5	1.5	1	9.281 051
10 - 200	0.2	0.9	0.5	1	9.281 052
50 - 1000	1.0	0.4	0.5	1	9.281 053
100 - 5000	5.0	0.4	0.5	1	9.281 054







Heathrow Scientific

8. Liquid Handling Pipettes/Microlitre pipettes



Pipette stands Flip & Grip™ for single and multi-channel microliter pipettes

Unique pipette holder that gives you the option of using on the bench top, or hanging under shelf holder to help maximize your working space available.

- Will hold up to 6 single channel pipette, or a combo of 3 single and 3 multichannel
- Holds most common brands. Rubber grips prevent scratching pipette
- Holder rotates for easy pipette selection and storage
- Weighted base. Fixing screw provided for under shelf option
- Dimensions (W x H): 193 x 332mm (bench top style); 193 x 187mm (under shelf style)

Colour	PK	Cat. No.
Blue	1	9.194 002
Lime	1	9.194 003
Magenta	1	9.194 004



2 Pipette clamp for single and multi-channel microliter pipettes Clamp-Ette®, PP

Chemical-resistant PP. A	utoclavable.	(7/1)	Heathrow Scientific
Туре	Dimensions		PK Cat. No.
	mm		
Pipette clamp, plastic	110 x 45 x 105		1 9.280 012



870 E & OE.

Single channel microliter pipettes, Transferpette[®] S, variable

The Transferpette®S models are the perfect manual pipettors for the most demanding applications in the laboratory. They include all of the features requested by Life Science users: rugged construction, one-hand volume adjustment, complete autoclavability, highest precision, and Easy Calibration $^{\text{TM}}$ technology for convenient, long-term reliability.

- Familiar, centrally placed pipetting key and separate tip ejector
- Ergonomic finger rest that adapts to your hand for a relaxed grip
- Easy, one-handed volume setting for right-or left-handed users
- Easy-to-read 4-digit volume display for highest precision
- Entirely autoclavable at 121°C (2 bar), DIN EN 285
- Colour indicates volume range
- Corrosion-resistant piston and ejector for durability
- Easy Calibration technology on the Transferpette® S digital models, providing calibration adjustments without tools, and a clear indication when the pipettes have been adjusted from factory settings
- Volume range from 0.1µl to 10 ml!
- CE-IVD-conform
- UV-resistant

Items supplied: Transferpette® S, DE-M marking, with quality certificate, shelf mount and silicone oil.



Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Tip	PK	Cat. No.
μl	μl	(≤ ± R%)	(≤ CV%)	μl		
0.1 -1	0.001	2.0	1.2	0.1 - 20, 0.1 - 1*	1	9.280 050
0.5 - 10	0.01	1.0	0.5	0.1 - 20, 0.5 - 20, 1 - 50, 0.1 - 1*, 0.5 - 10*, 1 - 20*	1	9.280 051
2 - 20	0.02	0.8	0.4	2 - 200, 5 - 300, 2 - 20*, 5 - 100*	1	9.280 052
10 - 100	0.1	0.6	0.2	2 - 200, 5 - 300, 2 - 20*, 5 - 100*	1	9.280 053
20 - 200	0.2	0.6	0.2	2 - 200, 5 - 300, 2 - 20*, 5 - 100*, 5 - 200*	1	9.280 054
100 - 1000	1	0.6	0.2	50 - 1000, 50 - 1000*	1	9.280 055
500 - 5000	5	0.6	0.2	0.5 - 5 ml	1	9.280 056
1000 - 10000	10	0.6	0.2	1 - 10 ml	1	9.280 057

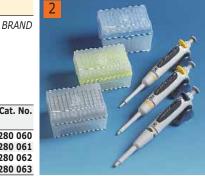
^{*} Filter tips

Single channel pipettes Starter-Kits, variable, Transferpette® S

Cost-saving Starter-Kits containing three Transferpette® S pipettes of different volumes with corresponding racked pipette tips from BRAND and shelf-mounting, pipette holders.

Items supplied: 3 Transferpette® S, variable, 3 x Tip-Boxes (filled), 3 shelf mounts.

Туре	Description	PK	Cat. No.
Starter-Kit Micro	0.1 to 1 μl, 0.5 to 10 μl, 10 to 100 μl	1	9.280 060
Starter-Kit Midi	2 to 20 µl, 20 to 200 µl, 100 to 1000 µl	1	9.280 061
Starter-Kit Macro	100 to 1000 µl, 500 to 5000 µl, 1000 to 10000 µl	1	9.280 062
Starter-Kit Standard	0,5 to 10 μl, 10 to 100 μl, 100 to 1000 μl	1	9.280 063



Pipette stands for Single and multichannel microliter pipettes Transferpette® S

	D.	2.1.11
Description	PK	Cat. No.
Bench stand for 1 multichannel pipette	1	7.510 391
Bench stand for 6 single and multichannel pipettes	1	9.280 065
Shelf hanger for 1single or multichannel pipette	1_	9.280 066



BRAND



Single channel microliter pipettes, Transferpette® electronic, variable

The Transferpette® electronic design ensures significantly easier operation and is the first microlitre pipette worldwide to be awarded the "Ergonomics Approved" certificate from the TUV Rhineland.

BRAND

9.280 130 2

The optimal design, the arrangement of the operating keys and the adjustable finger rest allow the motorized Transferpette® electronic to be tailored to the shape of your hand.

- motor-driven, to reduce the risk of RSI and imprecision/inaccuracy caused by operator variability
- five operating modes: Pipetting mode, Reverse pipetting, Mixing, Dispensing, Gel-electrophoresis modes
- Easy Calibration function for rapid adjustment of the unit without tools
- extremely fast pipetting speed

Single stand, for 500 to 5000 µl pipettors

- simple, in-lab maintenance
- completely autoclavable pipette shafts and multichannel manifolds
- NiMH rechargeable battery pack and battery regeneration-mode
- CE-marked according to IVD-Directive 98/79 EC

Every single-channel Transferpette® electronic is supplied with its own power supply unit. As an alternative the three-pipette accessory stand can charge up to three instruments at the same time. With the charging stand, individual chargers are not needed.

Items supplied: Transferpette® electronic, DE-M marking, with performance certificate, battery, 230V/50Hz power supply adapter (with continental European plug, alternative versions available on request),

Capacity	Increments	Accuracy	Precision	Tip	PK	Cat. No.
		max. vol.	max. vol.			
μl	μl	(≤ ± R%)	(≤ CV%)	и УУОУ		
0.5 - 10	0.01	1.0	0.4	0.1 - 20, 0.5 - 20, 1 - 50, 0.1 - 1*, 0.5 - 10*, 1 - 20*	1	9.280 113
2 - 20	0.02	1.0	0.4	0.1 - 20, 0.5 - 20, 1 - 50. 0.5 - 10*, 1 - 20*	1	9.280 100
20 - 200	0.2	0.8	0.2	2 - 200, 5 - 300, 2 - 20*, 5 - 100*, 5 - 200*	1	9.280 101
100 - 1000	1.0	0.6	0.2	50 - 1000, 50 - 1000*	1	9.280 102
500 - 5000	5.0	0.6	0.2	500 - 5000	1	9.280 114
0.5 - 10**	0.01	1.0	0.4	0.1 - 20, 0.5 - 20, 1 - 50, 0.1 - 1*, 0.5 - 10*, 1 - 20*	1	9.280 115
2 - 20**	0.02	1.0	0.4	0.1 - 20, 1 - 50, 0.5 - 20, 0.5 - 10*, 1 - 20*	1	9.280 103
20 - 200**	0.2	0.8	0.2	2 - 200, 5 - 300, 2 - 20*, 5 - 100*, 5 - 200*	1	9.280 104
100 - 1000**	1.0	0.6	0.2	50 - 1000, 50 - 1000*	1	9.280 105
500 - 5000**	5.0	0.6	0.2	500 - 5000	1	9.280 116

^{**}without a.c. adapter, please order with 3-device charging stand 9.280 106



9.280 130

Pipette stands for Single channel microliter pipettes Transferpette® electronic

BRAND Type PK Cat. No. 3-pipettor charging stand up to 1000 μl with adapter (230V 50Hz, EU plug) 1 9.280 106 Single stand, for pipettors up to 1000 µl 1 9.280 129



E & OE 872

Multichannel microliter pipettes Transferpette® S-8/S-12, variable

The new Transferpette® S -8/-12 multichannel pipettes are the perfect manual pipettes for the most demanding applications in the lab. They provide all of the features required **BRAND**

by users working in the life sciences field. A particular advantage of the new multichannel pipette is the easy operation, e.g. when performing serial pipetting of immunological assays, while serial dilutions or when filling the 96-well plates for cell cultures.

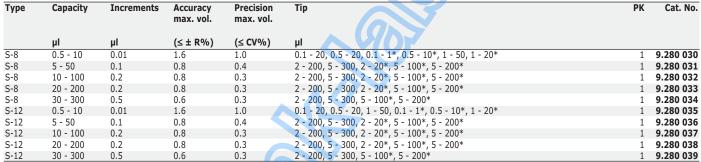
The use of new innovative materials results in a pipette that is light, precise, rugged and reliable.

Transferpette® S -8/-12 pipettes are available in 5 different models and cover the volume range from 0.5µl to 300µl.

Highlights at a glance:

- Central pipetting button and big separate tip ejector for reducing tip ejection forces.
- Short pipetting stroke; reduces the risk of RSI and enhances comfort for operators with smaller hands.
- Curved finger rest supports pipette for relaxed pipetting.
- Real one-handed operation; volume change and volume change protection.
- 4-digit volume display for precise volumes; always remains visible during pipetting.
- Completely autoclavable at 121°C (2 bar) without disassembly, DIN EN 285.
- Corrosion-resistant piston.
- Easy Calibration Technique: calibration and adjustments are done within seconds; adjustment from factory settings is clearly visible from the outside.
- Replaceable nose cones and seals to simplify service for long instrument life.
- Compatible with most common tips.
- Color indicates volume range
- CE-marked according to IVD-Directive 98/79 EC.
- UV-resistant

Items supplied: Transferpette® S -8/-12, DE-M marking, performance certificate, 2 x TipBox filled with BRAND® tips, 1 shelf/rack mount, 1 reagent-reservoir, 1 set of sealing rings made of FKM, 1 mounting tool and silicone oil.



^{*} Filter tips

Dilution microliter pipette Acura® manual 810, fix

This air displacement micropipette allows subsequent pipetting of 1 and 0.1mL of same liquid. The two pre-calibrated fixed volumes eliminate any setting. A universal metal

nozzle accommodates straw tips (length 190mm, diameter 4 mm), most adequate to aspirate from deep, narrow vials or Stomacher bags.

Ideal alternative to conventional graduated glass pipettes when performing serial 1:10 dilutions in bacteriology.

Volume	Increments	Accuracy	Precision	PK	Cat. No.
		max. vol.	max. vol.		
ml	μl	(≤ ± R%)	(≤ CV%)		
1 / 0.1	-	0.5	0.4	1	6.203 235

Straw tips, PP, for Dilution pipette Acura® manual 810

Colourless Polypropylene straw tips with a diameter of 4mm are specially designed for easy reach deep into narrow vials and Stomacher bags. Their large diametre allows pick up of particle containing liquids.

Qualitips® straw tips can be used directly in microbiological tests. They are supplied sterilized, in sealed bags.

Capacity	Length	PK	Cat. No.
ml	mm		
1.1	190	1000	6.210 059



Socorex







1 Single channel microliter pipettes Acura® manual 825/835

Available with fixed or adjustable volume.

Socorex

The latest Acura® manual pipette line was built with the same attention to detail that made the brand famous over several instrument generations. Introducing a smooth, modern design with easy volume reading. It also features a number of innovations enabling safe and easy, high performance pipetting.

The Acura® line features:

- Effortless activation
- Smart and reliable volume adjustment
- Precision digital display visible at all times
- Justip™ adjustable tip ejector fitting most tips
- Swift-set user calibration system
- Shock, UV-light and autoclaving resistance
- CE certified IVD 98/79 EEC
- Three-year warranty
- Eight micropipettes: 0.1 to 1000ml- Three micropipettes: 0.2 to 10ml Four fixed volume micropipettes: 2 to 10ml

Single channel microliter pipettes Acura® manual 825/835



Socorex

Туре	Capacity	Increments	Accuracy	Precision		PK	Cat. No.
			max. vol.	max. vol.			
	μl	μl	(≤ ± R%)	(≤ CV%)			
835	2000	-	0.8	0.5	M	1	6.235 043
835	2500	-	0.8	0.5		1	6.258 006
835	5000	-	0.7	0.3		1	6.205 429
835	10000	-	0.5	0.2		1	6.205 430

Single channel microliter pipettes Acura® manual 825/835, variable



Socorex

Type	Capacity	Increments	Accuracy	Precision		PK	Cat. No.
			max. vol.	max. vol.			
	μl	μl	(≤ ± R%)	(≤ CV%)	A // Y		
825	0.1 - 2	0.002	2.0	1.5		1	9.411 590
825	0.5 - 10	0.01	1.0	0.5		1	9.411 591
825	1 - 10	0.01	1.0	0.7		1	9.411 592
825	2 - 20	0.02	1.0	0.5		1	9.411 593
825	5 - 50	0.1	1.0	0.4		1	9.411 594
825	10 - 100	0.1	0.8	0.2		1	9.411 595
825	20 - 200	0.2	0.6	0.2		1	9.411 596
825	100 - 1000	1	0.5	0.2		1	9.411 597
835	200 - 2000	0.002	0.5	0.2		1	6.230 186
835	500 - 5000	0.01	0.6	0.3		1	9.411 598
835	1000 - 10000	0.01	0.5	0.2		1	9.411 599



Single channel microliter pipettes Acura® manual 825/835 Triopack™, variable

Set with 3 pipettes. Socorex

Nine different packs up to 10ml, each containing three adjustable micropipettes to cover all individual requirements in any research or routine application. Available at attractive saver prices.

Туре	Capacity	PK	Cat. No.
	μl		
Acura 825 Triopack.C	0.1 - 2, 0.5 - 10, 5 - 50	3	9.411 620
Acura 825 Triopack.J	0.1 - 2, 2 - 20, 20 - 200	3	9.411 621
Acura 825 Triopack.M	1 - 10Y*, 5 - 50, 20 - 200	3	9.411 622
Acura 825 Triopack.O	0.5 - 10, 10 - 100, 100 - 1000	3	9.411 628
Acura 825 Triopack.P	1 - 10Y*, 10 - 100, 100 - 1000	3	9.411 623
Acura 825 Triopack.S	2 - 20, 20 - 200, 100 - 1000	3	9.411 624
Acura 825 Triopack.T	5 - 50, 20 - 200, 100 - 1000	3	9.411 625
Acura 825 Triopack.V	10 - 100, 100 - 1000, 500 - 5000	3	9.411 626
Acura 825 Triopack.Y	100 - 1000, 500 - 5000, 1000 - 10000	3	9.411 627
*10µl pipette for use with 200 µ	l tips		

Accessories for single channel microliter pipettes Acura® manual 835



Socorex

Description	PK	Cat. No.
Protection filter for 10ml model	100	9.411 484
Glass Pasteur pipette for 2ml model	250	9.411 731
Nozzle filter for model 2 and 5ml	250	6.205 906

Pipettes/Microlitre pipettes

Microliter pipettes TwiXS Pack Acura® manual XS 826, variable

Six different pipette packs up to $1.000~\mu l$. For all individual requirements in any research application. Available at attractive saver prices.

Socorex

Ready-to-use set includes:

- Two Acura® manual XS pipettes
- Shelf pipette holder for two pipettes
- Qualitips® samples
- QC certificate
- Operating instructions

Туре	Capacity	Tip	PK	Cat. No.
	μl	μl		
Pack E	0,1 - 2 + 2 - 20	Ultra 10 - 200	2	9.411 650
Pack G	0,5 - 10 + 10 - 100	Ultra 10 - 200	2	9.411 651
Pack H	2 - 20 + 20 - 200	200 - 200	2	9.411 654
Pack K	5 - 50 + 20 - 200	200 - 200	2	9.411 652
Pack N	10 - 100 + 100 - 1000	200 - 1000	2	9.411 653
Pack Q	20 - 200 + 100 - 1000	200 - 1000	2	9.411 655



Single channel microliter pipettes, Calibra® digital 822/832

- Seven micropipettes: $0.2\ to\ 1000\mu l$
- two macropipettes: 0.2 to 10ml
- Instant, volume adjustment
- Unsurpassed performance and calibration stability
- Shock, heat, chemicals and UV light resistance
- Reliable user calibration
- Macro models accommodate interchangeable nozzle filters
- CE certified conform to IVD 98/79 EEC
- Autoclavable at 121°C/250°F
- Three-year warranty

Туре	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Tip	PK	Cat. No.
	μΙ	μΙ	(≤ ± R%)	(≤ CV%)	μl		
822	0.2 - 2	0.1	2.0	1.5	10	1	9.411 473
822	1 - 10	0.05	1.0	0.5	10	1	9.411 474
822	1 - 10	0.05	1.0	0.7	200	1	9.411 475
822	2 - 20	0.1	1.0	0.5	200	1	9.411 476
822	10 - 100	0.5	0.8	0.2	200	1	9.411 477
822	20 - 200	1	0.6	0.2	200	1	9.411 478
822	100 - 1000	5	0.5	0.2	1000	1	9.411 479
832	200 - 2000	10	0.5	0.2	2000	1	9.411 480
832	1000 - 10000	100	0.5	0.15	10000	1	9.411 481



Accessories for Single channel microliter pipettes Calibra® digital 832

(3)		Socorex
Description	PK	Cat. No.
Protection filter for 2ml model	250	9.411 482
Glass Pasteur pipette for 2ml model	250	9.411 731
Protection filter for 10ml model	100	9.411 484
Autoclaving box for 24 x 10ml tips	4	9.411 503



1



Single channel microliter pipettes Acura® electro XS 926/936, variable



Socorex

Microprocessor-controlled instrument line featuring intuitive software avoiding any complicated programming steps. No particular skills are required to get quick access to six working modes and many volumes to select from. Unsurpassed metrological performance and stability.

Pipetting modes:

- Forward: aspiration and pipetting of set volume
- Reverse: aspiration in excess, followed by dosing of set volume
- Stepper: tip filling and step-by-step distribution
- Dilution: aspiration of 2 or 3 different volumes for restitution in one shot
- Tactile: "start-stop-start" slow liquid measurement, titration and gel loading
- Mixing: "Up and down" liquid flow

The Acura® electro features:

- Optimal ergonomics, light weight
- Easy, intuitive, self-teaching programme
- Large display, reversible right/left reading
- Swift-interchange battery pack
- Fast charge, long working autonomy
- Adjustable tip ejector fitting most tips
- Pipetting cycle counter
- Interchangeable volumetric modules
- Two years warranty

Supplied with: Electronic pipette with 4.8V battery, operating instructions and QC certificate, Qualitips® pipette tips samples, silicone grease

Туре	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Tip	PK	Cat. No.
			max. von	max. voi.	WOY		
	μl	μl	(≤ ± R%)	(≤ CV%)	μl		
Acura® electro XS 926	0.1 - 2	0.01	0.9	0.8	Ultra 10	1	9.411 660
Acura® electro XS 926	0.5 - 10	0.05	0.6	0.35	Ultra 10	1	9.411 661
Acura® <i>electro</i> XS 926	0.5 - 10	0.05	0.6	0.4	200	1	9.411 662
Acura® electro XS 926	1 - 20	0.1	0.5	0.3	200	1	9.411 663
Acura® <i>electro</i> XS 926	2.5 - 50	0.25	0.5	0.25	200	1	9.411 664
Acura® electro XS 926	5 - 100	0.5	0.5	0.2	200	1	9.411 665
Acura® <i>electro</i> XS 926	10 - 200	1.0	0.4	0.15	200	1	9.411 666
Acura® electro XS 926	50 - 1000	5.0	0.4	0.1	1000	1	9.411 667
Acura® <i>electro</i> 936	100 - 2000	10	0.5	0.15	2000	1	9.411 680
Acura® electro 936	250 - 5000	50	0.5	0.15	5000	1	9.411 681
Acura® electro 936	500 - 10000	50	0.5	0.15	10000	1	9.411 682





Single channel microliter pipettes Initial package Acura® electro XS 926/electro 936, variable



Initial package is recommended when purchasing an Acura® electro for the first time. Each initial package contains one electronic pipette, QC certificate and operating instructions, charging stand, power supply, additional battery pack, Qualitips® pipette tips samples. Thereafter, additional pipettes can be purchased alone and charged on existing stand.

Socorex

Initial package supplied with:

electronic pipette with 4.8V battery, additional battery pack, charging stand, power supply, operating instructions and QC certificate, Qualitips® pipette tips samples, silicone grease

Туре	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Tip	PK	Cat. No.
	μΙ	μl	(≤ ± R%)	(≤ CV%)	μl		
Initial package Acura® electro XS 926 Acura® electro XS 926	0.1 - 2	0.01	0.9	0.8	Ultra 10	1	9.411 668
Initial package Acura® electro XS 926	0.5 - 10	0.05	0.6	0.35	Ultra 10	1	9.411 669
Initial package Acura® electro XS 926	0.5 - 10	0.05	0.6	0.4	200	1	9.411 670
Initial package Acura® electro XS 926	1 - 20	0.1	0.5	0.3	200	1	9.411 671
Initial package Acura® electro XS 926	2.5 - 50	0.25	0.5	0.25	200	1	9.411 672
Initial package Acura® electro XS 926	5 - 100	0.5	0.5	0.2	200	1	9.411 673
Initial package Acura® electro XS 926	10 - 200	1.0	0.4	0.15	200	1	9.411 674
Initial package Acura® electro XS 926	50 - 1000	5.0	0.4	0.1	1000	1	9.411 675
Initial package Acura® electro 936	100 - 2000	10	0.5	0.15	2000	1	9.411 683
Initial package Acura® electro 936	250 - 5000	50	0.5	0.15	5000	1	9.411 684
Initial package Acura® <i>electro</i> 936	500 - 10000	50	0.5	0.15	10000	1	9.411 685

876 E & OE. www.wenk-labtec.com

Multichannel microlitre pipettes Acura® manual 855, variable

- 8- and 12-channel models up to $350\mu l$
- Light weight and perfect hand fitting
- Easy to handle
- Precision digital display visible at all times
- 360° rotation of volumetric module
- Adjustable tip ejector fitting most tips
- Integrated user calibration system
- CE certified conform to IVD 98/79 EEC
- Autoclavable at 121°C/250°F
- Three-year warranty



Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Tip	PK	Cat. No.
	μl	μΙ	(≤ ± R%)	(≤ CV%)	μl		
8	0.5 - 10	0.01	1.5	1.0	10	1	9.411 630
8	5 - 50	0.1	0.8	0.4	200	1	9.411 631
8	20 - 200	0.2	0.7	0.3	200	1	9.411 632
8	40 - 350	0.4	0.8	0.3	350	1	9.411 633
12	0.5 - 10	0.01	1.5	1.0	10	1	9.411 634
12	5 - 50	0.1	0.8	0.4	200		9.411 635
12	20 - 200	0.2	0.7	0.3	200	1	9.411 636
12	40 - 350	0.4	0.8	0.3	350	1	9.411 637



Multichannel microliter pipettes Acura® electro 956, variable



Socorex



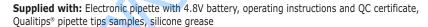
Microprocessor-controlled instrument line featuring intuitive software avoiding any complicated programming steps. No particular skills are required to get quick access to six working modes and many volumes to select from. Unsurpassed metrological performance and stability.

Pipetting modes:

- Forward: aspiration and pipetting of set volume
- Reverse: aspiration in excess, followed by dosing of set volume
- Stepper: tip filling and step-by-step distribution
- Dilution: aspiration of 2 or 3 different volumes for restitution in one shot
- Tactile: "start-stop-start" slow liquid measurement, titration and gel loading
- Mixing: "Up and down" liquid flow

The Acura® electro features:

- Optimal ergonomics, light weight
- Easy, intuitive, self-teaching programme
- Large display, reversible right/left reading
- Swift-interchange battery pack
- Fast charge, long working autonomy
- Adjustable tip ejector fitting most tips
- Pipetting cycle counter
- Interchangeable volumetric modules
- Two years warranty



Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Tip	PK	Cat. No.
	μΙ	μl	(≤ ± R%)	(≤ CV%)	μl		
8	0.5 - 10	0.05	1.0	0.7	Ultra 10	1	9.411 690
8	2.5 - 50	0.25	0.8	0.4	200	1	9.411 691
8	10 - 200	1.0	0.6	0.25	200	1	9.411 692
8	20 - 350	5.0	0.6	0.25	350	1	9.411 693
12	0.5 - 10	0.05	1.0	0.7	Ultra 10	1	9.411 694
12	2.5 - 50	0.25	0.8	0.4	200	1	9.411 695
12	10 - 200	1.0	0.6	0.25	200	1	9.411 696
12	20 - 350	5.0	0.6	0.25	350	1	9.411 697







Multichannel microliter pipettes Acura® electro 956, variable

Socorex

Initial package supplied with: electronic pipette with 4.8V battery, additional battery pack, charging stand, power

supply, operating instructions and QC certificate, Qualitips® pipette tips samples, silicone grease

Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Tip	((PK	Cat. No.
	μl	μl	(≤ ± R%)	(≤ CV%)	μl			
8	0.5 - 10	0.05	1.0	0.7	Ultra 10		1	9.411 700
8	2.5 - 50	0.25	0.8	0.4	200		1	9.411 701
8	10 - 200	1.0	0.6	0.25	200		1	9.411 702
8	20 - 350	5.0	0.6	0.25	350		1	9.411 703
12	0.5 - 10	0.05	1.0	0.7	Ultra 10		1	9.411 704
12	2.5 - 50	0.25	0.8	0.4	200		1	9.411 705
12	10 - 200	1.0	0.6	0.25	200		1	9.411 706
12	20 - 350	5.0	0.6	0.25	350		1	9.411 707

Accessoires for Acura® electro microliter pipettes

Socorex

Description		N		PK	Cat. No.
Stand for pipettes or battery packs, 3 positions				1	6.225 818
Stand for power handles only, 3 positions			57	1	6.225 848
Spare battery for blue Acura® electro line, NiMH, 4.8V				1	9.411 708



Shelf pipette holder for Single and Multi channel microliter pipettes, Type 332

For two Acura® and Calibra® micro and/or multichannel pipettes.

Socorex

Socorex

Material: polycarbonate (PC). Maintenance: clean with mild detergent. Not autoclavable.

Туре		PK	Cat. No.
Shelf pipette holder 332		1	6.235 370



Pipette stands Twister™ universal 336 for single channel microliter pipettes

Unique design 6-position pipette work station with great characteristics. Model fits six pipettes of most brands providing for an ideal storage solution in any laboratory. Rotation enables quick instrument selection. Easy disassembling for simple maintenance. Available in seven translucent colours. Discs are exchangeable.

Colour	PK	Cat. No.
Sapphire blue	1	6.253 916
Emerald green	1	6.253 917
Topaz orange	1	6.253 918
Quartz grey	1	6.253 919
Ruby red	1	6.253 920
Diamond white	1	6.253 921
Citrine vellow	1	6.253 922





Pipette stand for Single and Multichannel microliter pipettes, for Calibra® and Acura® models

Innovative design fits all Calibra® and Acura® models. Easy reach of each instrument. Heavy base plate and anti-slip pads guarantee high stability. Polyamide construction.

Socorex

Description	PK	Cat. No.
Pipette stand 340 for 3 pipettes	1	9.411 505

E & OE. 878

8. Liquid Handling

Pipettes/Microlitre pipettes

Socorex

Pipette stands for Single channel microliter pipettes, Type 337

- Holds up to 7 single-channel pipettes of most brands
- Available in 5 attractive colours
- Space-saving table-mounted models
- Polyacrylamide (PA) material is easy to clean

Colour	PK	Cat. No.
Light grey	1	9.411 491
Pink	1	9.411 504
Ice blue	1	9.411 492
Mint green	1	9.411 493
Vanilla yellow	1	9.411 494



Single channel pipette mLine®, mechanical, variabel

The mechanical pipettes of Sartorius are known for their ergonomic, user-friendly design Sartorius Weighing and reliability. mLINE ® pipettes represent an ergonomic choice for quality-conscious users who perform long lasting and repetitive manual pipetting. These pipettes are used in (bio)pharmaceutical laboratories, research institutes, universities, health care and industrial laboratories for various liquid handling tasks

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Optifit Tips	46	PK	Cat. No.
μl	μΙ	(≤ ± R%)	(≤ CV%)	μl			
0.1 - 3	0.002	± 1.30	± 0.80	10		1	6.234 095
0.5 - 10	0.01	± 1.00	± 0.60	10		1	6.234 096
2 - 20	0.02	± 0.90	± 0.40	200		1	6.237 371
10 - 100	0.10	± 0.80	± 0.15	200 350		1	6.228 993
20 - 200	0.20	± 0.60	± 0.15	200 350		1	6.228 995
100 - 1000	1.00	± 0.60	± 0.20	1000		1	6.206 379
500 - 5000	10.0	± 0.50	± 0.20	5000		1	6.237 372
1000 - 10000	20.0	± 0.60	± 0.20	10000		1	6.239 043



	3	Pi	pette	stand	for	single	channel	pip	oettes	mLine	3®
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Carousel stand for 6 mechanical pipettes.

Sartorius Weighing

Cat. No. Type

Pipette stand for single channel pipettes mLine®

6.238 583





Single channel/Multichannel microliter pipettes F1-ClipTip™

Available with fixed or adjustable volume.

Thermo Scientific

The innovative ClipTip™ interlocking technology ensures a complete seal with minimal tip attachment and ejection force. Achieve newfound confidence knowing that once attached, your tips are locked firmly in place, and will not loosen or fall off regardless of application pressure. The innovative three interlocking clip design ensures the tip is held securely on the F1-ClipTip™ pipette only until it is released.

- Tip is locked and sealed in place until ejected, no dropped tips that waste valuable samples

- Complete seal to secure the sample volume in the tip, enhanced accuracy and precision
- Tips are attached and ejected with a light touch, which eliminates the frustration of banging tips on the pipette
- Ergonomic design and Soft-touch tip ejection: Offering low attachment, ejection and plunger forces for safe and comfortable use
- Remarkably lightweight: Modern design protects user from the risk of Repetitive Strain Injuries (RSI)
- Adjustable comfort: The 120° adjustable finger rest for both right- and left-handed operator comfort, allows the hand to relax during pipetting cycles
- Super blow-out: 150% increase in air boost to ensure efficient delivery of micro-volumes and prevent capillary action (Available for models up to 50µl)
- Volume Lock Adjustment for Variable Volume models: The secure volume setting prevents undesirable volume drift during operation
- Industry-leading lifetime warranty: With convenient online registration
- Compliance: The F1-ClipTip™ Pipetting system is CE-marked in accordance with IVD Directive in Europe
- Certifications: Manufactured according to ISO 9001, ISO 14001 and ISO 13485.

Single channel microliter pipettes F1-ClipTip™, fix

Thermo Scientific

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Tip		PK	Cat. No.
μΙ	μl	(≤ ± R%)	(≤ CV%)				
1	-	4.0	4.0	ClipTip™ 20	A UVAS	1	9.282 638
5	-	1.4	1.4	ClipTip™ 20	(VIUI	1	9.282 639
10	-	0.9	0.8	ClipTip™ 20		1	9.282 640
20	-	0.7	0.5	ClipTip™ 20		1	9.282 641
25	-	0.6	0.5	ClipTip™ 50		1	9.282 642
50	-	0.6	0.4	ClipTip™ 50		1	9.282 643
100	-	0.4	0.3	ClipTip™ 200		1	9.282 644
200	-	0.4	0.3	ClipTip™ 200		1	9.282 645
250	-	0.4	0.3	ClipTip™ 300		1	9.282 646
500	-	0.3	0.3	ClipTip™ 1000		1	9.282 647
1000	-	0.3	0.3	ClipTip™ 1000		1	9.282 648

Single channel microliter pipettes F1-ClipTip, variable

Thermo Scientific

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Colour code	Tip	PK	Cat. No.
μΙ	μΙ	(≤ ± R%)	(≤ CV%)				
1 - 10	0.02	2.5	2.0	Pink	ClipTip™ 20	1	9.282 631
2 - 20	0.02	3.0	2.5	Pink	ClipTip™ 20	1	9.282 632
5 - 50	0.1	3.0	2.5	Violet	ClipTip™ 50	1	9.282 633
10 - 100	0.2	3.0	1.0	Yellow	ClipTip™ 200	1	9.282 634
20 - 200	0.2	1.8	0.7	Yellow	ClipTip™ 200	1	9.282 635
30 - 300	1.0	1.5	0.6	Orange	ClipTip™ 300	1	9.282 636
100 - 1000	1.0	1.0	0.6	Blue	ClipTip™ 1000	1	9.282 637
30 - 300	1.0	1.5	0.6	Orange	ClipTip™ 300	1	9.282 6

Multichannel microliter pipettes F1-ClipTip™, variable

Thermo Scientific

Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Colour code	Tip	PK	Cat. No.
	μΙ	μl	(≤ ± R%)	(≤ CV%)				
8	1 - 10	0.02	12.0	8.0	Pink	ClipTip 20	1	9.282 651
8	5 - 50	0.1	5.0	2.0	Violet	ClipTip 50	1	9.282 652
8	10 - 100	0.2	5.0	2.0	Yellow	ClipTip 200	1	9.282 653
8	30 - 300	1.0	5.0	2.0	Orange	ClipTip 300	1	9.282 654
12	1 - 10	0.02	12.0	8.0	Pink	ClipTip 20	1	9.282 655
12	5 - 50	0.1	5.0	2.0	Violet	ClipTip 50	1	9.282 656
12	10 - 100	0.2	5.0	2.0	Yellow	ClipTip 200	1	9.282 657
12	30 - 300	1.0	5.0	2.0	Orange	ClipTip 300	1	9.282 658

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8. Liquid Handling

Pipettes/Microlitre pipettes

Single channel microliter pipettes F1-ClipTip™ GLP Kits, variable

F1-ClipTip™ GLP Kit 1 includes:

- one F1-ClipTip™ single channel pipette with 1-10µl, 10-100µl and 100-1000µl each
- one F series stand
- ClipTip™ 20, 200 and 1000 pipette tips (one rack with 96 tips each)
- one 25ml reservoir
- two divided reservoirs (25 and 100ml)

F1-ClipTip™ GLP Kit 2 includes:

- one F1-ClipTip™ single channel pipette with 2-20µl, 10-200µl and 200-2000µl each
- one 8-channel pipette with 30-300µl
- one F series stand
- ClipTip™ 20, 200, 300 and 1000 pipette tips (one rack with 96 tips each)
- one 25ml reservoir
- two divided reservoirs (25 and 100ml)



Туре	PK	Cat. No.
F1-ClipTip™ GLP Kit 1	1	9.282 614
F1-ClipTip™ GLP Kit 2	1	9.282 615



Electronic single channel and multichannel microliter pipettes E1-ClipTip™

With enhanced versatility and customization, E1-ClipTip™ Electronic microliter pipettes automate e.g. daily 96-and 384-well microplate pipetting tasks.

Thermo Scientific

Innovative ClipTip interlocking tip interface technology

- Tip is locked and sealed in place until ejected: No dropped tips that waste valuable samples
- Complete seal to secure the sample volume in each tip for enhanced accuracy and precision
- Tips are attached and ejected with a light touch: Eliminates the frustration of banging tips on the pipette

Unified operation for multiple users and environments

- Personalized user interface and password protection ensure consistent operation among multiple users.
- Designed for optimum comfort and ease of use, electronic tip ejection and index finger pipetting

MyPipette™: One click access for more efficient and unified pipetting: Customise your main menu view by organising icons in your preferred order or creating shortcuts for your favorite programs and pipetting functions. You can also protect important settings from unintentional editing with a password.

Store up to 20 programs

A pipette for every application: Choose from single channels, 8- and 16-channel multichannels, or 6- and 12-channel adjustable tip spacing Equalizer multichannel pipettes within the volume range of 0.5-1250µL

Track your pipette

Liquid specific calibrations: Higher quality results with liquid specific calibrations

Li-Ion battery: Long lasting performance and fast recharging.

Flexible re-charging: Use either charging stand or a plug, you decide

2-year warranty: With convenient web registration



Electronic single channel microliter pipettes E1-ClipTip™, variable



Capacity	Increments	Accuracy	Precision	Colour code	Tip	PK	Cat. No.
μΙ	μΙ	max. vol. (≤ ± R%)	max. vol. (≤ CV%)				
0.5 - 12.5	0.01	1.0 - 4.0	0.4 - 4.0	Pink	ClipTip™ 12.5	1	9.282 694
2 - 125	0.1	0.6 - 2.4	0.2 - 0.8	Yellow	ClipTip™ 200	1	9.282 695
10 - 300	0.1	0.6 - 1.7	0.2 - 0.5	Orange	ClipTip™ 300	1	9.282 696
50 - 1250	1.0	0.5 - 2.4	0.1 - 0.5	Turquoise	ClipTip™ 1250	1	9.282 697

Electronic multichannel microliter pipettes E1-ClipTip™, variable



Thermo	Scientific
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Channels	Capacity	Increments	Accuracy	Precision	Colour code	Tip	PK	Cat. No.
			max. vol.	max. vol.				
	μl	μl	(≤ ± R%)	(≤ CV%)				
8	0.5 - 12.5	0.01	2.5 - 12.0	1.6 - 12.0	Pink	ClipTip™ 12.5	1	9.282 698
8	2 - 125	0.1	2.0 - 8.0	0.6 - 4.0	Yellow	ClipTip™ 200	1	9.282 699
8	10 - 300	0.1	2.0 - 5.0	0.6 - 2.0	Orange	ClipTip™ 300	1	9.282 700
8	50 - 1250	1	1.4 - 4.0	0.6 - 1.5	Turquoise	ClipTip™ 1250	1	9.282 701
12	0.5 - 12.5	0.01	2.5 - 12.0	1.6 - 12.0	Pink	ClipTip™ 12.5	1	9.282 702
12	2 - 125	0.1	2.0 - 8.0	0.6 - 4.0	Yellow	ClipTip™ 200	1	9.282 703
12	10 - 300	0.1	2.0 - 5.0	0.6 - 2.0	Orange	ClipTip™ 300	1	9.282 704
12	30 - 850	1	1.5 - 4.7	0.6 - 2.0	Blue	ClipTip™ 1000	1	9.282 705
16	0.5 - 12.5	0.01	2.5 - 12.0	1.6 - 12.0	Pink	ClipTip™ 384 12.5	1	9.282 706
16	1 - 30	0.01	2.0 - 10.0	0.9 - 7.0	Violet	ClipTip™ 384 30	1	9.282 707
16	2 - 125	0.1	2.0 - 8.0	0.6 - 4.0	Yellow	ClipTip™ 384 125	1	9.282 708

Electronic multichannel microliter pipettes E1-ClipTip™ Equalizer, variable

(NEW!)

Perform sample transfers between virtually any tube, rack, microplate or horizontal gel

Thermo Scientific
box quickly and efficiently with the Thermo Scientific™ E1-ClipTip™ Equalizer Pipette.

Adjustable tip spacing allows you to set the distance between tips by simply sliding the scale to expand or contract to the desired labware format. Feel the difference.

An ideal choice for sample transfers: Reduce repetition and save time between labware formats with adjustable tip spacing in Equalizer models.

Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Colour code	Tip	Adjustable Tip spacing	PK	Cat. No.
	μl	μl	(≤ ± R%)	(≤ CV%)			mm		
6	50 - 1250	1	1.4 - 4.0	0.6 - 1.5	Turquoise	ClipTip™ 1250	9.0 - 19.8	1	9.282 709
8	2 - 125	0.1	2.0 - 8.0	0.6 - 4.0	Yellow	ClipTip™ 200	9.0 - 14.2	1	9.282 710
8	10 - 300	0.1	2.0 - 5.0	0.6 - 2.0	Orange	ClipTip™ 300	9.0 - 14.2	1	9.282 711
8	50 - 1250	1	1.4 - 4.0	0.6 - 1.5	Turquoise	ClipTip™ 1250	9.0 - 14.2	1	9.282 712
8	0.5 - 12.5	0.01	2.5 - 12.0	1.6 - 12.0	Pink	ClipTip™ 384 12.5	4.5 - 14.2	1	9.282 713
8	1 - 30	0.01	2.0 - 10.0	0.9 - 7.0	Violet	ClipTip™ 384 30	4.5 - 14.2	1	9.282 714
8	2 - 125	0.1	2.0 - 8.0	0.6 - 4.0	Yellow	ClipTip™ 384 125	4.5 - 14.2	1	9.282 715
12	0.5 - 12.5	0.01	2.5 - 12.0	1.6 - 12.0	Pink	ClipTip™ 384 12.5	4.5 - 9.0	1	9.282 716
12	1 - 30	0.01	2.0 - 10.0	0.9 - 7.0	Violet	ClipTip™ 384 30	4.5 - 9.0	1	9.282 717
12	2 - 125	0.1	2.0 - 8.0	0.6 - 4.0	Yellow	ClipTip™ 384 125	4.5 - 9.0	1	9.282 718



Pipette stand for electronic single and multichannel microliter pipettes E1-ClipTip™



		V		Thermo Scientific
Description				PK Cat. No.
Pipette stand E1-ClipTip™ with power supply	Ż			1 9.282 719





3 Pipette Tips ClipTip™

Thermo Scientific ClipTip™ pipette tips provide security with a unique and innovative Thermo Scientific interlocking technology that ensures a complete seal on every channel with minimal tip attachment and ejection force. Achieve newfound confidence knowing that once attached, your tips are locked firmly in place, and will not loosen or fall off. The innovative three interlocking clip design ensures the tip is held securely on the F1-ClipTip™ pipette only until it is released.

- Tips are attached and ejected with a light touch: Eliminates the frustration of banging tips on the pipette
- Low retention: Special technology to enable maximium sample recovery
- Versatile Tip Range: Choose from five sizes: 20, 50, 200, 300 and 1000μL
- Immediate traceability
- Compliance: The F1-ClipTip™ pipetting system is CE-marked in accordance with IVD Directive in Europe.
- Certifications: Manufactured according to ISO 9001, ISO 14001, ISO 13485 and free of RNase, DNase, DNA, ATP and endotoxin contamination

Pipette Tips ClipTip™ 12.5 for 96 and 384



Thermo Scientific

Capacity	Package contents	Description	PK	Cat. No.
μΙ				
0.5 - 12.5	10 racks of 384	ClipTip™ 384 12.5	3840	9.282 720
0.5 - 12.5	10 racks of 384	ClipTip™ 384 12.5, sterile	3840	9.282 721
0.5 - 12.5	10 racks of 384	ClipTip™ 384 12.5, Filter tips, sterile	3840	9.282 722
0.5 - 12.5	10 racks of 96	ClipTip™ 96 12.5	960	9.282 729
0.5 - 12.5	10 racks of 96	ClipTip™ 96 12.5, sterile	960	9.282 730
0.5 - 12.5	10 racks of 96	ClipTip™ 96 12.5, Filter tips, sterile	960	9.282 731

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Pipette Tips ClipTip™ 20 for 96

Length 4.6cm, volume range 1-20µl, colour code pink.

Suitable for F1-ClipTip™ Cat. No. 9.282 631, 9.282 632, 9.282 638, 9.282 639, 9.282 640, 9.282 641, 9.282 651 and 9.282 655.

Thermo Scientific

Capacity	Description	Package	PK	Cat. No.
		contents		
μΙ				
1 - 20	non sterile	10 racks of 96	960	9.282 661
1 - 20	sterile	10 racks of 96	960	9.282 662
1 - 20	non sterile	10 refill packs of 96	960	9.282 663
1 - 20	sterile	10 refill packs of 96	960	9.282 664
1 - 20	Filter tips, sterile	10 racks of 96	960	9.282 665
1 - 20	Filter tips, sterile	10 refill packs of 96	960	9.282 666

Pipette Tips ClipTip™ 30 for 384



Thermo Scientific

Capacity	Description	Package contents		K Cat. No.
μΙ			$(C \Delta^*)$	
1 - 30	non-sterile	10 racks of 384	384	0 9.282 723
1 - 30	sterile	10 racks of 384	384	0 9.282 724
1 - 30	Filter tips, sterile	10 racks of 384	384	0 9.282 725

Pipette Tips ClipTip™ 50 for 96

Length 5.1cm, volume range 5-50µl, colour code violet. Suitable for F1-ClipTip™ Cat. No. 9.282 633, 9.282 642, 9.282 643, 9.282 652 and 9.282 656. Thermo Scientific

Capacity	Description	Package contents		PK	Cat. No.
μΙ		333			
5 - 50	non sterile	10 racks of 96		960	9.282 667
5 - 50	sterile	10 racks of 96	Y NUM	960	9.282 668
5 - 50	non sterile	10 refill packs of 96		960	9.282 669
5 - 50	sterile	10 refill packs of 96		960	9.282 670
5 - 50	Filter tips, sterile	10 racks of 96		960	9.282 671
5 - 50	Filter tips, sterile	10 refill packs of 96		960	9.282 672

Pipette Tips ClipTip™ 125 for 384



Thermo Scientific

Capacity	Description	Package contents	<			PK	Cat. No.
μl 1 - 125	non-sterile	10 racks of 384				3840	9,282 726
1 - 125	sterile	10 racks of 384	77				9.282 727
1 - 125	Filter tips, sterile	10 racks of 384		1		3840	9.282 728

Pipette Tips ClipTip™ 200 for 96

Length 5.6cm, volume range 10-200µl, colour code yellow.

Thermo Scientific

Suitable for F1-ClipTip™ Cat. No. 9.282 634, 9.282 635, 9.282 644, 9.282 645, 9.282 653 and 9.282 657.

Capacity	Description	Package	PK	Cat. No.
		contents		
μl				
10 - 200	non sterile	10 racks of 96	960	9.282 673
10 - 200	sterile	10 racks of 96	960	9.282 674
10 - 200	non sterile	10 refill packs of 96	960	9.282 675
10 - 200	sterile	10 refill packs of 96	960	9.282 676
10 - 200	Filter tips, sterile	10 racks of 96	960	9.282 677
10 - 200	Filter tips, sterile	10 refill packs of 96	960	9.282 678

Pipette Tips ClipTip™ 300 for 96

Length 6.3cm, volume range 30-300µl, colour code orange. Suitable for F1-ClipTip™ Cat. No. 9.282 636, 9.282 646, 9.282 654 and 9.282 658. Thermo Scientific

Capacity	Description	Package	PK	Cat. No.
		contents		
μl				
30 - 300	non sterile	10 racks of 96	960	9.282 679
30 - 300	sterile	10 racks of 96	960	9.282 680
30 - 300	non sterile	10 inserts of 96	960	9.282 681
30 - 300	sterile	10 inserts of 96	960	9.282 682
30 - 300	Filter tips, sterile	10 racks of 96	960	9.282 683
30 - 300	Filter tips, sterile	10 inserts of 96	960	9.282 684

Pipette Tips ClipTip™ 1000 for 96

Length 9.5cm, volume range 100-1000µl, colour code blue. Suitable for F1-ClipTip™ Cat. No. 9.282 637, 9.282 647 and 9.282 648. Thermo Scientific

Capacity	Description	Package	PK	Cat. No.
		contents		
μl				
100 - 1000	non sterile	10 racks of 96	768	9.282 685
100 - 1000	sterile	10 racks of 96	768	9.282 686
100 - 1000	non sterile	10 refill packs of 96	768	9.282 687
100 - 1000	sterile	10 refill packs of 96	768	9.282 688
100 - 1000	Filter tips, sterile	10 racks of 96	768	9.282 689
100 - 1000	Filter tips, sterile	10 refill packs of 96	768	9.282 690

Pipette Tips ClipTip™ 1250 for 96



Thermo Scientific

Capacity	Description	Package	PK	Cat. No.
		contents		
μl				
50 -1250	non-sterile	8 racks of 96	768	9.282 732
50 -1250	sterile	8 racks of 96	768	9.282 733
50 -1250	Blister Reload	8 inserts of 96	768	9.282 734
50 -1250	Blister Reload, sterile	8 inserts of 96	768	9.282 735
50 -1250	Filter tips, sterile	8 racks of 96	768	9.282 736
50 -1250	Filter tips Reload, sterile	8 inserts of 96	768	9.282 737

Empty Racks for Pipette Tips F1-ClipTip™

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Туре	For				7	PK		Cat. No.
ClipTip™ Rack small	ClipTip™ 20, ClipTip™ 50	У /		1		10	9	9.282 691
ClipTip™ Rack medium	ClipTip™ 200, ClipTip™ 300					10	9	9.282 692
ClipTip™ Rack large	ClipTip™ 1000					8	9	9.282 693





Single channel microliter pipettes Finnpipette™ F1

The Thermo Scientific Finnpipette™ F1 pipette incorporates state-of-the-art innovations for ease of use and proven results. The Advanced Volume Gearing mechanism (AVG) is a self-supporting modular volume adjustment mechanism that enhances pipetting performance.

It also delivers dependable accuracy and precision with real durability with its separate pipetter body.

- Integrated surface protection helps keep the pipette clean and free from contaminants
- Set and Forget pipetting button easy and secure locking mechanism to adjust the volume
- Adjustable finger rest can be adjusted 120° for optimal pipetting and tip ejection position
- Advanced Volume Gearing (AVG) Mechanism increased accuracy, precision and durability
- Light pipetting forces improved ergonomics to minimise the risk of RSI
- Patented super blow-out piston in models with volumes of 50µl and below to ensure the delivery of micro-size drops
- Patented soft touch tip ejection mechanism
- 5 year warranty

Single channel microliter pipettes Finnpipette™ F1, fix

Thermo Scientific

Capacity	Increments	Accuracy	Precision	Suitable Finntip	PK	Cat. No.
		max. vol.	max. vol.	Tips		
μl	μΙ	(≤ ± R%)	(≤ CV%)			
1	-	4.0	4.0	Flex 10, 10, 50 Mikro	1	9.282 400
5		1.4	1.4	Flex 10, 10, 50 Mikro	1	9.282 401
10		0.9	0.8	Flex 200, 250 Univ., 200 Ext.	1	9.282 402
25		0.6	0.5	Flex 200, 250 Univ., 200 Ext.	1	9.282 403
50	-	0.6	0.4	Flex 200, 250 Univ., 200 Ext.	1	9.282 404
100	-	0.4	0.3	Flex 200, 250 Univ., 200 Ext.	1	9.282 405
250	-	0.4	0.3	Flex 1000, 1000, 1000 Ext.	1	9.282 406
500	-	0.3	0.3	Flex 1000, 1000, 1000 Ext.	1	9.282 407
1000	-	0.3	0.3	Flex 1000, 1000, 1000 Ext.	1	9.282 408
2000	-	0.3	0.2	5ml	1	9.282 409
3000	-	0.3	0.2	5ml	1	9.282 410
5000	-	0.3	0.2	5ml	1	6.240 071
10000	-	0.3	0.2	10ml	1	9.282 411

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Single channel microliter pipettes Finnpipette™ F1, variable

Thermo Scientific

Capacity	Increments	Accuracy	Precision max. vol.	Colour code	Suitable Finntip	P	K Cat	t. No.
μl	μl	max. vol. (≤ ± R%)	(≤ CV%)		Tips			
0,2 - 2*	0.002	12.0	2.0	Pink	Flex 10, 10, 50 Mikro		1 9.282	2 412
0,5 - 5*	0.01	6.0	1.0	Pink	Flex 10, 10, 50 Mikro		1 9.282	2 413
1 - 10*	0.02	2.5	0.5	Pink	Flex 10, 10, 50 Mikro		1 6.242	2 557
1 - 10	0.02	3.5	0.8	Yellow	Flex 200, 250 Univ.		9.282	2 414
2 - 20*	0.02	3.0	0.4	Turquoise	50 Mikro		1 9.282	2 415
2 - 20	0.02	3.0	0.4	Yellow	Flex 200, 250 Univ.		1 9.282	2 416
10 - 100	0.2	3.0	0.2	Yellow	Flex 200, 250 Univ., 300, 200 Ext.		1 9.282	2 417
20 - 200	0.2	1.8	0.2	Yellow	Flex 200, 250 Univ., 300, 200 Ext.		1 6.241	1 373
30 - 300	1.0	1.5	0.2	Orange	Flex 300, 300		1 9.282	2 418
100 - 1000	1.0	1.0	0.2	Blue	Flex 1000, 1000, 1000 Ext.		1 9.282	2 419
500 - 5000	10.0	2.0	0.2	Green	5 ml		1 9.282	2 420
1000 - 10000	20.0	2.0	0.2	Red	10 ml		1 9.282	2 421

*Microtip

1 Single channel microliter pipettes Finnpipette™ F2

Introducing the new Thermo Scientific Finnpipette™ F2, a pipette that has all the right qualities. It has a light pipetting action, it is easy to use, and it is fully autoclavable.

Furthermore, the Finnpipette™ F2 offers outstanding reliability, which we guarantee with a 5 year warranty.

Add to this great accuracy and precision, and you know the Finnpipette™ F2 is a winner.

- Advanced Volume Gearing (AVG) mechanism increased accuracy, precision and durability
- Light pipetting forces improved ergonomics to minimise the risk of RSI
- Double-action pipetting button prevents accidental volume alteration during pipetting
- Very large Ergovisio display very big and clear display
- Both single channel and multichannel pipettes are fully autoclavable
- 5 year warranty



Single channel microliter pipettes Finnpipette™ F2, fix

Thermo Scientific

Capacity	Increments	Accuracy	Precision	Suitable Finntip	PK	Cat. No.
		max. vol.	max. vol.	Tips		
μΙ	μl	(≤ ± R%)	(≤ CV%)			
1	-	4.0	4.0	Flex 10, 10, 50 Mikro	1	9.282 450
5	-	1.4	1.4	Flex 10, 10, 50 Mikro	1	9.282 451
10	-	0.9	0.8	Flex 200, 250 Univ., 200 Ext.	1	9.282 452
25	-	0.6	0.5	Flex 200, 250 Univ., 200 Ext.	1	9.282 453
20	-	0.6	0.5	Flex 200, 250 Univ., 200 Ext.	1	9.282 463
50	-	0.6	0.4	Flex 200, 250 Univ., 200 Ext.	1	9.282 454
100	-	0.4	0.3	Flex 200, 250 Univ., 200 Ext.	1	9.282 455
200	-	0.4	0.3	Flex 200, 250 Univ., 200 Ext.	1	9.282 464
250	-	0.4	0.3	Flex 1000, 1000, 1000 Ext.	1	9.282 456
500	-	0.3	0.3	Flex 1000, 1000, 1000 Ext.	1	9.282 457
1000	-	0.3	0.3	Flex 1000, 1000, 1000 Ext.	1	9.282 458
2000	-	0.3	0.2	5ml	1	9.282 459
3000	-	0.3	0.2	5ml	1	9.282 460
5000	-	0.3	0.2	5ml	1	9.282 461
10000	-	0.3	0.2	10ml	1	9.282 462

Single channel microliter pipettes Finnpipette[™] F2, variable

Thermo Scientific

Capacity	Increments	Accuracy	Precision	Colour code	Suitable Finntip	PK	Cat. No.
		max. vol.	max. vol.		Tips		
μl	μl	(≤ ± R%)	(≤ CV%)				
0,2 - 2*	0.002	12.0	2.0	Pink	Flex 10, 10, 50 Mikro	1	6.240 102
0,5 - 5*	0.01	6.0	1.0	Pink	Flex 10, 10, 50 Mikro	1	6.233 742
1 - 10*	0.02	2.5	0.5	Pink	Flex 10, 10, 50 Mikro	1	9.282 465
1 - 10	0.02	3.5	0.8	Yellow	Flex 200, 250 Univ.	1	6.240 360
2 - 20*	0.02	3.0	0.4	Turquoise	50 Mikro	1	9.282 466
2 - 20	0.02	3.0	0.4	Yellow	Flex 200, 250 Univ.	1	6.233 743
5 - 50*	0.1	0.3	0.3	Turquoise	50 Mikro	1	6.251 900
5 - 50	0.1	0.3	0.3	Yellow	Flex 200, Flex 300, 250 Univ., 200 Ext.	1	6.239 178
10 - 100	0.2	3.0	0.2	Yellow	Flex 200, 250 Univ., 300, 200 Ext.	1	9.282 467
20 - 200	0.2	1.8	0.2	Yellow	Flex 200, 250 Univ., 300, 200 Ext.	1	6.233 744
100 - 1000	1.0	1.0	0.2	Blue	Flex 1000, 1000, 1000 Ext.	1	6.233 745
500 - 5000	10.0	2.0	0.2	Green	5 ml	1	6.238 106
1000 - 10000	20.0	2.0	0.2	Red	10 ml	1	6.239 136

*Microtip





Electronic single channel microliter pipettes Finnpipette™ Novus, variable

Thermo Scientific Finnpipette™ Novus Single Channel Electronic Pipetters offer performance with simple operation and reduced stress for comfortable, productive pipetting. Thermo Scientific

Thermo Scientific

- Easy to use simple text guided user interface and operator button layout.
- Large display shows all the names of the functions without abbreviations.
- Ergonomic and lightweight design with balanced weight distribution enables longer work periods without fatique.
- Finger rest is adjustable by 120 degrees to find the optimal pipetting position for both left hand and right hand users.
- Adjustable finger rest leaves your index finger free to control pipetting with minimum effort using the trigger action pipetting button.
- Light-touch tip ejector minimizes strain on your thumb with the very low tip ejection force and can be used with both right and left-hand.
- Finnpipette™ Novus has 10 different pipetting functions to cover most pipetting applications in the laboratory.
- 9 different speeds which can be separately adjusted for dispensing and aspirating, to optimize pipetting with different reagents.
- 9 built-in memory slots to store your own combination of the 10 different pipetting functions.
- Intuitive menu ensures easy access to pipetting functions for all laboratory pipetting applications.
- Light, long lasting battery allowing over 4000 pipetting actions.
- Fast recharge battery, fully recharged within 1 hour and the pipette is fully operational while recharging.
- Finnpipette[™] Novus designed for easy in-lab calibration and service.
- The tip cone is fully autoclavable.
- Color coded buttons and color coded ring help identify the matching Finntip model.

Capacity	Increments	Accuracy	Precision	Colour code	Suitable Finntip	PK	Cat. No.
μl	μl	max. vol. (≤ ± R%)	max. vol. (≤ CV%)		Tips		
1 - 10*	0.01	3.5	3.0	pink	10	1	6.228 698
1 - 10	0.01	7.0	6.0	yellow	250 Univ., 200 Ext.	1	9.282 480
5 - 50*	0.1	3.0	2.5	turquoise	50	1	6.228 699
5 - 50	0.1	3.0	2.5	yellow	250 Univ., 200 Ext.	1	6.228 700
10 - 100	0.1	3.0	1.0	yellow	250 Univ., 200 Ext.	1	6.228 701
30 - 300	1.0	3.0	0.7	orange	300	1	6.228 702
100 - 1000	1.0	3.0	0.6	blue	1000, 1000 Ext.	1	6.228 703
500 - 5000	10.0	3.0	0.8	green	5ml	1	6.228 704
1000 - 10000	10.0	3.0	0.8	red	10ml	1	6.228 705
*Microtin							



Multichannel microliter pipettes Finnpipette™ F1, variable

Finnpipette™ F1 multichannel pipettes are available in 8-, 12- and 16-channel models with a wide selection of volume ranges. As with the single channel Finnpipette™ F1 pipettes, the AVG mechanism ensures a high level of accuracy and precision.

The soft-touch tip ejection is especially useful on multichannel models, significantly reducing the effort needed to eject multiple tips. In addition, in the low volume models the super blow-out function ensures accurate dispensing for even the lowest volumes.

Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Colour code	Suitable Finntip Tips	PK	Cat. No.
	μl	μľ	(≤ ± R%)	(≤ CV%)				
8	1 - 10	0.02	12.0	8.0	pink	Flex 10, 10, 50 Mikro	1	9.282 430
8	5 - 50	0.1	5.0	2.0	yellow	Flex 200, 250 Univ., 200 Ext.	1	9.282 431
8	10 - 100	0.2	5.0	2.0	yellow	Flex 200, 250 Univ., 200 Ext.	1	9.282 432
8	30 - 300	1.0	5.0	2.0	orange	Flex 300, 300	1	9.282 433
12	1 - 10	0.02	12.0	8.0	pink	Flex 10, 10, 50 Mikro	1	9.282 434
12	5 - 50	0.1	5.0	2.0	yellow	Flex 200, 250 Univ., 200 Ext.	1	9.282 435
12	10 - 100	0.2	5.0	2.0	yellow	Flex 200, 250 Univ., 200 Ext.	1	9.282 436
12	30 - 300	1.0	5.0	2.0	orange	Flex 300, 300	1	9.282 437
16	1 - 10	0.02	12.0	8.0	violet	Flex 10 (384), 50 Mikro	1	9.282 438
16	5 - 50	0.1	5.0	2.0	turanoise	50 Mikro	1	9 282 439

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Multichannel microliter pipettes Finnpipette™ F2, variable

The Finnpipette™ F2 multichannel pipettes are available in 8-, 12- and 16-channel models with a selection of volume ranges. As with the single channel Finnpipette™ F2 pipettes, the AVG mechanism ensures a high level of accuracy and precision.

In addition, in the low volume models the super blow-out function ensures accurate dispensing for even the lowest volumes.





Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Colour code	Suitable Finntip Tips	PK	Cat. No.
	μl	μl	(≤ ± R%)	(≤ CV%)				
8	1 - 10	0.02	0.24	8.0	pink	Flex 10, 10, 50 Mikro	1	9.282 470
8	5 - 50	0.1	0.75	2.0	yellow	Flex 200, 250 Univ., 200 Ext.	1	9.282 471
8	10 - 100	0.2	1.3	2.0	yellow	Flex 200, 250 Univ., 200 Ext.	1	9.282 472
8	30 - 300	1.0	3.0	2.0	orange	Flex 300, 300	1	9.282 473
12	1 - 10	0.02	0.24	8.0	pink	Flex 10, 10, 50 Mikro	1	9.282 474
12	5 - 50	0.1	0.75	2.0	yellow	Flex 200, 250 Univ., 200 Ext.	1	9.282 475
12	10 - 100	0.2	1.3	2.0	yellow	Flex 200, 250 Univ., 200 Ext.	1	9.282 476
12	30 - 300	1.0	3.0	2.0	orange	Flex 300, 300	1	9.282 477
16	1 - 10	0.02	0.24	8.0	violet	Flex 10 (384), 50 Mikro	1	9.282 478
16	5 - 50	0.1	0.75	2.0	turquoise	50 Mikro	1	9.282 479

Electronic multichannel microliter pipettes Finnpipette™ Novus, variable

Thermo Scientific Finnpipette™ Novus Multichannel Pipetters offer superior performance for microplate applications.

Thermo Scientific

- Easy to use simple text guided user interface and operator button layout.
- Large display shows all the names of the functions without abbreviations.
- Features multi-language programming: English, French, German, Italian, Japanese, Spanish, and Swedish.
- Ergonomic and lightweight design with balanced weight distribution enables longer work periods without fatigue.
- Finger rest is adjustable by 120 degrees to find the optimal pipetting position for both left hand and right hand users.
- Adjustable finger rest leaves your index finger free to control pipetting with minimum effort using the trigger action pipetting button.
- Light-touch tip ejector minimizes strain on your thumb with the very low tip ejection force and can be used with both right and left-hand.
- Finnpipette™ Novus has 10 different pipetting functions to cover most pipetting applications in the laboratory.
- 9 different speeds which can be separately adjusted for dispensing and aspirating, to optimize pipetting with different reagents.
- 9 built-in memory slots to store your own combinations of the 10 different pipetting functions.
- Intuitive menu ensures easy access to pipetting functions for all laboratory pipetting applications.
- Light, long lasting battery allowing over 4000 pipetting actions.
- Fast recharge battery, can be fully recharged within 1 hour and the pipette is fully operational while recharging.
- Finnpipette™ Novus designed for easy in-lab calibration and service.
- The module is fully autoclavable.
- Color coded buttons to help identify the matching Finntip model.
- Wide range of multichannel models for demanding laboratory tasks.
- Lightweight handle and module has a balanced weight distribution preventing muscle stress and strain.



Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Colour code	Suitable Finntip Tips	PK	Cat. No.
	μl	μl	(≤ ± R%)	(≤ CV%)				
8	1 - 10	0.01	12.0	8.0	pink	10, 20, 50	1	6.228 706
8	5 - 50	0.1	5.0	2.0	yellow	250	1	6.228 707
8	30 - 300	1.0	3.0	0.9	orange	300	1	6.228 708
8	100 - 1200	1.0	3.0	0.9	turquoise	1200	1	6.228 709
12	1 - 10	0.01	12.0	8.0	pink	10, 20, 50	1	9.282 481
12	5 - 50	0.1	5.0	2.0	yellow	250	1	9.282 482
12	30 - 300	1.0	3.0	1.0	orange	300	1	9.282 483
16	5 - 50	0.1	5.0	2.0	turquoise	50	1	9.282 484

Pipette stand for single and multichannel microliter pipettes F1/F2

Thermo Scientific

Description	PK	Cat. No.
With 6 slots	1	9.282 440



1



Pipette stand for Multichannel microliter pipettes

Multichannel Pipette Stand, 1 position.

Thermo Scientific

Description PK Cat. No.

Multichannel Pipette Stand 1 9.282 441





2 Pipette stand for multichannel microliter pipettes Finnpipette™ Novus

For Thermo Scientific Finnpipette™ Novus pipettes.

Thermo Scientific

 Type
 PK
 Cat. No.

 Novus
 1
 6.228 761

Single channel microliter pipettes Eppendorf Research® plus

Available with fixed or adjustable volume.

Eppendorf

The ultra light Eppendorf Research plus pipettor meets the highest requirements in precision and accuracy - combined with ultimate ergonomics and increased flexibility.

A spring loaded tip cone, a secondary calibration option, an improved volume display - and all this within a fully autoclavable pipette.

Ergonomics:

- ultra light
- pipetting forces greatly reduced
- the spring-loaded tip cone

Flexibility:

- calibrate your Research plus to your needs,
- autoclave the entire pipettor, or only the lower housing
- choose among single channel, multichannel and fixed volume pipettors in different sizes.

Robustness:

- durability has been tested thoroughly and meets the highest quality requirements
- resistance to chemical, thermal and mechanical stress is now unchallenged
- volume adjustment: Only a few turns needed to reach your desired volume
- control button: Requires minimal operating force, colour indicates volume, ergonomically positioned for comfort
- ejector: requires minimal operating force, ergonomically positioned for comfort
- volume display: 4 digits, magnifying window
- calibration display & adjustment opening: Calibrate your pipettor to a specific liquid and volume.



888

Single channel microliter pipettes Eppendorf Research® plus, fix

- Eppendorf PerfectPiston™: ultra-light piston made of Fortron® (except 2.5μl, 10μl, 5ml and 10ml pipettors)

Eppendorf

- quick connection clip: remove lower housing easily (except 5ml and 10ml pipettors)

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Colour code	PK	Cat. No.
μΙ	μl	(≤ ± R%)	(≤ CV%)			
10	-	1.2	0.6	mid grey	1	9.283 210
10	-	1.2	0.3	yellow	1	9.283 211
20	-	0.8	0.6	light grey	1	9.283 212
20	-	1.0	0.3	yellow	1	9.283 213
25	-	1.0	0.3	yellow	1	9.283 214
50	-	0.7	0.3	yellow	1	9.283 215
100	-	0.6	0.2	yellow	1	9.283 216
200	-	0.6	0.2	yellow	1	9.283 217
200	-	0.6	0.2	blue	1	9.283 218
250	-	0.6	0.2	blue	1	9.283 219
500	-	0.6	0.2	blue	1	9.283 220
1000	-	0.6	0.2	blue	1	9.283 221

1

Single channel microliter pipettes Eppendorf Research® plus, variable

- Eppendorf PerfectPiston™: Ultra light piston made of Fortron® (except 2.5μl, 10μl, 5ml and 10ml pipettors)

Eppendor

- quick connection clip: easily removable lower part (not in 5ml and 10ml pipettes)
- spring loaded tip cone: Improved ergonomics, tight fit to the tip (except 5ml and 10ml pipettors)

Capacity	Increments	Accuracy	Precision	Colour code		PK	Cat. No.
		max. vol.	max. vol.				
μl	μl	(≤ ± R%)	(≤ CV%)				
0,1 - 2,5	0.002	1.4	0.7	dark grey		1	9.283 200
0,5 - 10	0.01	1.0	0.4	mid grey		1	9.283 201
2 - 20	0.02	1.0	0.3	yellow		1	9.283 202
2 - 20	0.02	1.0	0.3	light grey		1	9.283 208
10 - 100	0.01	0.8	0.2	yellow		1	9.283 203
20 - 200	0.02	0.6	0.2	yellow		1	9.283 204
30 - 300	0.02	0.6	0.2	orange		1	9.283 209
100 - 1000	1.0	0.6	0.2	blue		1	9.283 205
500 - 5000	2.0	0.6	0.15	purple		1	9.283 206
1000 - 10000	10.0	0.6	0.15	turquoise	<u>ICA</u>	1	9.283 207



Single channel microliter pipettes Eppendorf Research plus 3-Packs, variable

3 adjustable Eppendorf Research® plus pipettes per pack, choice of 3 packs. Special "mL" large-volume pack with up to 10ml nominal volume, ideal for pipetting cell culture media.

Ready-to-use: delivered with matching Eppendorf pipette tips for ultimate user comfort and precision!

Eppendorf

Option 1: $0.5-10\mu$ l, $10-100\mu$ l, $100-1.000\mu$ l + 3 reusable epT.I.P.S.® boxes with 96 pipette tips each. **Option 2:** $2-20\mu$ l, $20-200\mu$ l, $100-1.000\mu$ l + 3 reusable epT.I.P.S.® boxes with 96 pipette tips each.

Option 3: 100-1.000µl, 0.5-5ml, 1-10ml with samples of matching pipette tips.

Туре	A (/)	PK C	Cat. No.
Research plus 3-Packs, Option 1		1 9.2	283 228
Research plus 3-Packs, Option 2		1 9.2	283 229
Research plus 3-Packs, Option 3		1 9.2	283 230





manufacturer's whole product range!

partner of the Lab Logistics Group

eppendorf

Single channel micoliter pipettes Eppendorf Reference® 2

The Reference® 2 is the successor to the highly successful Reference pipette, and enhances the range's already high standards with a new design, reduced weight and operating forces and multi-channel versions. As the premium product in Eppendorf's pipette portfolio, the Reference® 2 provides the most accurate results possible alongside robust, reliable handling and optimum user safety.

New features: An embedded RFID chip contains all relevant data regarding the pipette and offers with Eppendorf TrackIT a simple identification and documentation. The range of the variable single channel pipettes have been extended by the volume sizes up to 5000µl and 10.000µl.

- Color coded and volume labeled for quick identification of the volume size/ tip size
- Round upper part makes it possible to work in every position
- 4-digit display for exact volume setting (clearly visible from every angle)
- Quick and secure volume setting, include volume lock
- Fully autoclavable
- Movable parts and external edges made from stainless steel equip the pipette with outstanding robustness at potential impact sites and for internal components



Single channel microliter pipettes Reference® 2, fix



Eppendorf

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Control button	PK	Cat. No.
μΙ	μl	(≤ ± R%)	(≤ CV%)	colour		
1	-	2.5	1.8	dark grey	1	9.284 920
2	-	2.0	1.2	dark grey	1	9.284 921
5	-	1.5	0.8	mid grey	1	9.284 922
10	-	1.0	0.5	mid grey	1	9.284 923
10	-	1.0	0.5	yellow	1	9.284 924
20	-	0.8	0.3	light grey	1	9.284 925
20	-	0.8	0.3	yellow	1	9.284 926
25	-	0.8	0.3	yellow	1	9.284 927
50	-	0.7	0.3	yellow	1	9.284 928
100	-	0.6	0.2	yellow	1	9.284 929
200	-	0.6	0.2	yellow	1	9.284 930
200	-	0.6	0.2	blue	1	9.284 931
250	-	0.6	0.2	blue	1	9.284 932
500	-	0.6	0.2	blue	1	9.284 933
1000	-	0.6	0.2	blue	1	9.284 934
2000	-	0.6	0.2	red	1	9.284 935
2500	-	0.6	0.15	red	1	9.284 936



Single channel microliter pipettes Eppendorf Reference® 2, variable



Eppendorf

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Control button	PK	Cat. No.
μl	μi	(≤ ± R%)	(≤ CV%)	colour		
0.1 - 2.5	0.002	1.4	0.7	dark grey	1	9.284 900
0.5 - 10	0.01	1.0	0.4	mid grey	1	9.284 901
2 - 20	0.02	1.0	0.3	light grey	1	9.284 902
2 - 20	0.02	1.0	0.3	yellow	1	9.284 903
10 - 100	0.1	0.8	0.2	yellow	1	9.284 904
20 - 200	0.2	0.6	0.2	yellow	1	9.284 905
30 - 300	0.2	0.6	0.2	orange	1	9.284 906
100 - 1000	1.0	0.6	0.2	blue	1	9.284 907
250 - 2500	2.0	0.6	0.2	red	1	9.284 908
500 - 5000	5.0	0.6	0.15	purple	1	9.284 909
1000 - 10000	10.0	0.6	0.15	turquoise	1	9.284 910



Single channel microliter pipettes epReference[®] 2, 3-Pack



Economic package containing three variable single channel pipettes and suitable tips for each pipette.

Eppendorf

Option 1: 0.5-10µl, 10-100µl, 100-1000µl+ 3 reusable epT.I.P.S.® boxes with 96 pipette tips each. **Option 2:** 2-20µl, 20-200µl, 100-1000µl + 3 reusable epT.I.P.S.® boxes with 96 pipette tips each.

Option 3: $100-1000\mu I$, 0.5-5m I, 1-10m I with musters of the fitting pipette tips.

Туре	PK	Cat. No.
Option 1: 0.5-10µl, 10-100µl, 100-1000µl	1	9.284 897
Option 2: 2-20µl, 20-200µl, 100-1000µl	1	9.284 898
Option 3: 100-1000µl, 0.5-5ml, 1-10ml	1	9.284 899

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Electronic single channel microliter pipettes Eppendorf Xplorer®, variable

The new electronic pipette Eppendorf Xplorer® sets new standards in terms of simplicity, precision and reproducibility.

Eppendorf

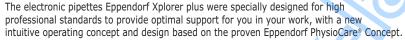
- Multifunctional rocker: "Up is up and down is down"™ principle
- Easy selection of all functions with the practical selection dial
- Operate in the language of your choice
- Clearly arranged colour display
- No sub-menus
- Help function
- Innovative rocker: When the tip is ejected, the piston automatically returns to zero position
- Tips always rest in the same position
- Volume & speed precisely and reproducibly adjustable
- Adjustable to your work environment and requirements
- Incl. 230V/50Hz charging adapter. The pipette can be charged directly with the charging adapter. Additionally the charging adapter can also be used with the optional charging stand (Cat. No. 9.283 254) which holds the pipette safely whilst charging.

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Control button	PK Cat. No.
μl	μΙ	(≤ ± R%)	(≤ CV%)	colour	
0.5 - 10	0.01	1.0	0.4	medium grey	1 9.283 240
5 - 100	0.1	0.8	0.2	yellow	1 9.283 241
15 - 300	0.2	0.6	0.2	orange	1 9.283 242
50 - 1000	1.0	0.6	0.2	blue	1 9.283 243
250 - 5000	5.0	0.6	0.15	purple	1 9.283 244
500 - 10000	10.0	0.6	0.15	turquoise	1 9.283 245





Electronic single channel microliter pipettes Eppendorf Xplorer® plus, variable



Eppendorf

NEW

- Autodispense
- Manual pipetting, multi-aspirate, dilution, sequential pipetting, sequential dispensing, reverse pipetting
- Programming of multiple modes in a sequence
- Setting of fixed volumes
- Password protection
- History function
- Service interval warning

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Capacity	Increments	Accuracy	Precision	Control	PK	Cat. No.
		max. vol.	max. vol.	button		
	1	(+ D0/)	(4.6)(0(1)	1		
μΙ	μΙ	(≤ ± R%)	(≤ CV%)	colour		
0.5 - 10	0.01	1.0	0.4	medium grey	1	9.283 181
5 - 100	0.1	0.8	0.2	yellow	1	9.283 182
15 - 300	0.2	0.6	0.2	orange	1	9.283 183
50 - 1000	1.0	0.6	0.2	blue	1	9.283 184
250 - 5000	5.0	0.6	0.15	purple	1	9.283 185
500 - 10000	10.0	0.6	0.15	turquoise	1	9.283 186

Charging stand for Single and multichannel microliter pipettes Eppendorf Xplorer®

Charging stand for holding one single channel or multichannel pipette Eppendorf Xplorer® using the charger adapter (230V/50Hz) which is supplied with each pipette.

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Туре	PK	Cat. No.
Charging stand	1	9.283 254





Multichannel microliter pipettes Eppendorf Research® plus, variable

The ultra light Eppendorf Research plus pipettor meets the highest requirements in precision and accuracy - combined with ultimate ergonomics and increased flexibility. **Eppendorf**

A spring loaded tip cone, a secondary calibration option, an improved volume display - and all this within a fully autoclavable pipette.

- volume adjustment: Only a few turns needed to reach your desired volume
- control button: Requires minimal operating force, colour indicates volume, ergonomically positioned for comfort
- ejector: requires minimal operating force, ergonomically positioned for comfort
- volume display: 4 digits, magnifying window
- calibration display & adjustment opening: Calibrate your pipettor to a specific liquid and volume.
- channel indicator: use the pipette the same way round all the time
- remove individual channels: gain flexibility for individual needs
- Eppendorf PerfectPiston™: ultra-light piston made of Fortron® (except 10µl pipettors)
- quick connection clip: Easily removable lower housing
- spring loaded tip cone: improved ergonomics, tight fit to the tip

Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Control button	PK	Cat. No.
	μl	μl	(≤ ± R%)	(≤ CV%)	colour		
8	0.5 - 10	0.01	1.0	0.4	mid grey	1	9.283 222
8	10 - 100	0.1	0.8	0.2	yellow	1	9.283 224
8	30 - 300	0.2	0.6	0.2	orange	1	9.283 226
12	0.5 - 10	0.01	1.0	0.4	mid grey	1	9.283 223
12	10 - 100	0.1	0.8	0.2	yellow	1	9.283 225
12	30 - 300	0.2	0.6	0.2	orange	1	9.283 227



Multichannel microliter pipettes Eppendorf Reference® 2, variable



The Reference® 2 is the successor to the highly successful Reference pipette, and **Eppendorf** enhances the range's already high standards with a new design, reduced weight and operating forces and multi-channel versions. As the premium product in Eppendorf's pipette portfolio, the Reference® 2 provides the most accurate results possible alongside robust, reliable handling and optimum user safety.

New features: An embedded RFID chip contains all relevant data regarding the pipette and offers with Eppendorf TrackIT simple identification and documentation. The new Reference 2 multi channel offers a channel indicator and a spring-loaded tip cone for optimum tip fit and reduced effort. The range of the variable single channel pipettes have been extended by the volume sizes up to 5000µl and 10.000µl.

- Color coded and volume labeled for quick identification of the volume size/ tip size
- Round upper part makes it possible to work in every position
- 4-digit display for exact volume setting (clearly visible from every angle)
- Quick and secure volume setting, include volume lock
- Fully autoclavable
- Movable parts and external edges made from stainless steel equip the pipette with outstanding robustness at potential impact sites and for internal components
- Channel indicator quarantees a continuously identical pipette alignment during the work process
- Spring-loaded tip cone for reproducible tip fit and reduced effort (to be switched on/off optionally)
- High flexibility and simple maintenance with the ability to remove single cones

Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Control button	PK	Cat. No.
	μΙ	μl	(≤ ± R%)	(≤ CV%)	colour		
8	0.5 - 10	0.01	2.0	1.0	medium grey	1	9.284 940
8	10 - 100	0.1	0.8	0.3	yellow	1	9.284 942
8	30 - 300	0.2	0.6	0.3	orange	1	9.284 944
12	0.5 - 10	0.01	2.0	1.0	medium grey	1	9.284 941
12	10 - 100	0.1	0.8	0.3	yellow	1	9.284 943
12	30 - 300	0.2	0.6	0.3	orange	1	9.284 945

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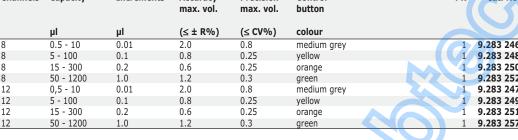
Electronic multichannel microliter pipettes Eppendorf Xplorer®, variable

The new electronic pipette Eppendorf Xplorer® sets new standards in terms of simplicity, precision and reproducibility.

Eppendorf

- Multifunctional rocker: "Up is up and down is down"™ principle
- Easy selection of all functions with the practical selection dial
- Operate in the language of your choice
- Clearly arranged colour display
- No sub-menus
- Help function
- Innovative rocker: When the tip is ejected, the piston automatically returns to zero position
- Tips always rest in the same position
- Volume & speed precisely and reproducibly adjustable
- Adjustable to your work environment and requirements
- Incl. 230V/50Hz charging adapter. The pipette can be charged directly with the charging adapter. Additionally the charging adapter can also be used with the optional charging stand (Cat. No. 9.283 254) which holds the pipette safely whilst charging.

Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Control button	PK	Cat. No.
	μl	μl	(≤ ± R%)	(≤ CV%)	colour		
8	0.5 - 10	0.01	2.0	0.8	medium grey	1	9.283 246
8	5 - 100	0.1	0.8	0.25	yellow	1	9.283 248
8	15 - 300	0.2	0.6	0.25	orange	1	9.283 250
8	50 - 1200	1.0	1.2	0.3	green	1	9.283 252
12	0,5 - 10	0.01	2.0	0.8	medium grey	1	9.283 247
12	5 - 100	0.1	0.8	0.25	yellow	1	9.283 249
12	15 - 300	0.2	0.6	0.25	orange	1	9.283 251
12	50 - 1200	1.0	1.2	0.3	green	1	9.283 257





Electronic multichannel microliter pipettes Eppendorf Xplorer® plus, variable

The electronic pipettes Eppendorf Xplorer plus were specially designed for high professional standards to provide optimal support for you in your work, with a new intuitive operating concept and design based on the proven Eppendorf PhysioCare® Concept.



- Autodispense
- Manual pipetting, multi-aspirate, dilution, sequential pipetting, sequential dispensing, reverse pipetting
- Programming of multiple modes in a sequence
- Setting of fixed volumes
- Password protection
- History function
- Service interval warning

Channels	Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Control button	PK	Cat. No.
	μΙ	μΙ	(≤ ± R%)	(≤ CV%)	colour		
8	0.5 - 10	0.01	2.0	0.8	medium grey	1	9.283 187
8	5 - 100	0.1	0.8	0.25	yellow	1	9.283 189
8	15 - 300	0.2	0.6	0.25	orange	1	9.283 191
8	50 - 1200	1.0	1.2	0.3	green	1	9.283 193
12	0.5 - 10	0.01	2.0	0.8	medium grey	1	9.283 188
12	5 - 100	0.1	0.8	0.25	yellow	1	9.283 190
12	15 - 300	0.2	0.6	0.25	orange	1	9.283 192
12	50 - 1200	1.0	1.2	0.3	green	1	9.283 194

Pipette stands for single and multi-channel microliter pipettes

- Space saving pipettor rack to hold up to six pipettes
- Carousel pipette stand
- Can accommodate a wide range of pipettes using accessory pipette adapters

Туре	PK	Cat. No.
Caragool stand for 6 pinattors (avant for Defarance® 2)	1	0 202 F01
Carousel stand for 6 pipettors (except for Reference® 2)	1	9.283 581
Carousel stand for 6 pipettors (only for Reference® 2)	1	9.284 947
Pipette holder for attachment to the wall	1	9.283 580
Multipette adapter for pipette carousel	1	9.283 656
Multipette adapter for wall mounting	1	9.283 657





Eppendorf

Pipette Leak Testing Unit (PLT unit)

Improved process reliability with functional validation of air-displacement pipettes.

BRAND

The most frequent cause of inaccuracy in piston-operated pipettes is leakage. This arises from damage either to the seals, pistons or tip cones. Often not detectable by the naked eye, leaks lead to significant volume errors.

The BRAND pipette leak tester (PLT unit) for air displacement pipettes finds even the smallest leaks within seconds.

- Limit values for the commercially available single- and multichannel pipettes in the volume range 1µl to 10ml are pre-programmed.
- Testing with and without tips
- Test results in seconds
- Patent pending

According to monitoring of measuring instruments, air-displacement pipettes must be checked at regular intervals and the results must be compared with the ISO 8655-2 error limits. However, a calibration certificate only reflects the results at the time of testing. The time between these calibrations is crucial, since leaks can occur at any time. Well over 80% of pipettes sent in for repair have leaks and are outside their volume tolerances, even if they don't drip.

While the PLT unit cannot replace regular gravimetric testing, daily pipette checks can provide a safeguard during the periods between calibrations. Even the smallest leaks are detected. Process reliability for the pipettes is thus significantly improved.

Items supplied:

PLT unit (Pipette Leak Testing Unit) including one adapter each for testing air-displacement pipettes with tip (mounted) and without tip, 2 plugs, 3 replacement PE filters for the pipette adapters, universal AC adapter, quality certificate and operating manual.

Туре	M			PK	Cat. No.
Pipette Leak Testing Unit			7	1	4.007 886

Accessories for Pipette Leak Testing Unit (PLT unit)

BRAND

	4.		
Description	4 🖺	PK Cat	t. No.
1-channel pipette adapter, for testing with tip, incl. 1 blind plug		1 9.2	280 575 2
1-channel pipette adapter, for testing without tip, incl. 1 blind plug		1 9.2	280 576 3
4-channel pipette adapter, for testing with and without tip, incl. 1 blind plug		1 9.2	280 577 4
Filters, PE, for pipette adapter		10 9.2	280 578 5
Universal AC adapter, Input: AC 100V - 240V, 50/60Hz, Output: DC 6.5V, 800mA		1 9.2	280 579 6







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8. Liquid Handling

Pipettes/Positive displacement pipettes

Positive displacement pipettes, Transferpettor

For easy, clean pipetting of problematic media.

Transferpettor operates by positive displacement, which makes it ideal for pipetting:

- Highly viscous media such as oils, resins and fats up to a viscosity of 140.000mm²/sec. (dependent on instrument size)
- Media with high vapour pressure up to 500mbar (Alcohols, ethers, hydrocarbons etc.)
- Media with a high density up to 13.6g/cm³ (e.g. mercury and sulphuric acid)
- Media that tend to foam (surfactant solutions).
- Working temperature range: 15°C to 40°C

Capillary tubes and tips can be used over and over again, since residual wetting is negligible and generally has no influence on the overall result. This leads to lower material costs and reduced waste.

But: In cases, where no contamination is permitted, e.g. with infectious or radioactive media, the Brand Transferpette® is recommended, an air displacement pipettor for comfortable working with disposable tips.

Items supplied: Transferpettor, DE-M marking, with quality certificate.



Single channel pipettes Transferpettor Fixed-volume

With pipette caps and seals.

BRAND

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Seal material	Cap material	(7/1)	PK	Cat. No.
μΙ	μl	(≤ ± R%)	(≤ CV%)			AAL'O)		
1	-	4.0	4.0	-	glass		1	9.280 696
50	-	0.6	0.4	PTFE	glass		1	9.280 705
100	-	0.6	0.4	PTFE	glass		1	9.280 710
200	-	0.5	0.2	PTFE	glass		1	9.280 720

Single channel pipettes Transferpettor Digital-adjustable

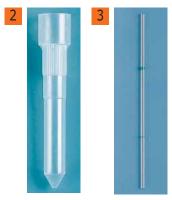
BRAND

Capacity	Increments	Length	Accuracy	Precision	Cap	PK	Cat. No.
		Handle	max. vol.	max. vol.	material		
μl	μl	mm	(≤ ± R%)	(≤ CV%)			
2.5 - 10	0.01	orange	1.0	0.8	glass*	1	9.280 602
5 - 25	0.1	2 x white	0.8	0.5	glass*	1	9.280 605
10 - 50	0.1	green	0.6	0.4	glass*	1	9.280 610
20 - 100	0.1	blue	0.6	0.4	glass*	1	9.280 620
100 - 500	1.0	green	0.5	0.2	PP**	1	9.280 724
200 - 1000	1.0	yellow	0.5	0.2	PP**	1	9.280 726
1000 - 5000	10.0	red	0.5	0.2	PP**	1	9.280 730
2000 - 10000	10.0	orange	0.5	0.2	PP**	1	9.280 732
* DTEE CI-							_

^{**}PE-Seals

2 3 Caps for single channel pipettes Transferpettor

Capacity	Material	PK	Cat. No.
μl			
1, 2, 5	glass	100	9.280 800
10	glass	100	9.280 801
20	glass	100	9.280 802
25	glass	100	9.280 803
50	glass	100	9.280 805
100 / 200	glass	50	9.280 810
100 to 500	PP	10	9.280 741
200 to 1000	PP	10	9.280 742
1000 to 5000	PP	10	9.280 743
2000 to 10000	PP	10	9.280 745



BRAND

BRAND

4 Seals for pipettes Transferpettor

Capacity	Material	PK	Cat. No.
μl			
20 / 25	PTFE	3	9.280 901
50	PTFE	3	9.280 903
100 / 200	PTFE	3	9.280 905
100 to 500	PE	10	9.280 751
200 to 1000	PE	10	9.280 752
1000 to 5000	PE	10	9.280 753
2000 to 10000	PE	10	9.280 755



8. Liquid Handling

Pipettes/Positive displacement pipettes





Stands for single channel pipettes Transferpettor

Transferpettor stations. For storage of 4 instruments up to 200 μ l with accessories or 2 instruments from 0.5 to 10 ml with accessories.

BRAND

Туре	PK	Cat. No.
For 2 pipettes with accessories	1	9.280 581
For 4 pipettes with accessories	1	9.280 850





Positive displacement micropipettes Acura® capillary 846

High performance positive displacement micropipettes with interchangeable glass capillary tube and ETFE tipped plunger.

Socorex

The soft shaped handle and smooth plunger activation provides for enhanced hand comfort while handling viscous liquids, foaming solutions or volatile solvents.

Five models cover a range from 1 to 200 $\mu L. \,$

- Slim body shape, comfortable finger rest
- Smooth plunger activation
- Reliable, step-wise volume adjustment
- Colour codes matching on pipettes, plungers and capillaries
- Stainless steel, ETFE tipped plunger
- Three-year warranty

Capacity	Increments	Accuracy max. vol.	Precision max. vol.	Cap material	PK	Cat. No.
μl	μl	(≤ ± R%)	(≤ CV%)			
1 - 5	1	2.0	1.2	ETFE	1	6.263 911
5 - 25	5	0.8	0.6	ETFE	1	6.263 912
10 - 50	10	0.7	0.4	ETFE	1	6.263 913
60 - 100	10	0.7	0.3	ETFE	1	6.263 914
100 - 200	25	0.7	0.3	ETFE	1	6.263 915





Accessories for Positive displacement micropipettes Acura® capillary 846



		Socorex
Description	K	Cat. No.
Spare glass capillary, white 20	0	6.308 832
Spare glass capillary, 2 x white	0	6.225 698
Spare glass capillary, green 20	0	6.307 233
Spare glass capillary, blue	0	6.803 126
Spare glass capillary, red	0	6.210 150
Spare plunger, steel	5	6.308 831
Spare plunger, white	5	6.304 882
Spare plunger, green	5	6.210 135
Spare plunger, blue	5	6.803 127
Spare plunger, red	5	6.320 887



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8. Liquid Handling Pipettes/Pipette tips

LLG-Pipette tips economy, non-sterile

Certified free of DNase, RNase, suitable for microbiology. Guaranteed metal-free.

LLG universal fit tips are engineered for a wide variety of pipettes and are ideal for laboratories with multiple brands of pipettes, even multi-channel pipettes. Our universal tips feature the universal grip design, using flexible materials with a series of bands and supports producing a positive seal. LLG tips have thin walls and a small surface area at the tip, greatly minimising the possibility of the tip retaining sample droplets. In addition the small surface area reduces the touch-off angle between the outer tip wall and the receiving sample tube. This reduced touch-off angle virtually eliminates the potential of capillary retention between the tip orifice and tube wall. Each of our tips is moulded to give a flash-free and uniform delivery orifice for consistent accuracy and reproducible sample delivery. All our tips are provided with calibration lines at specific volumes, acting as visual checks to minimise any risk of errors during sample aspiration.

Capacity	Colour	Package contents	PK	Cat. No.
μl				
0.1 - 10	clear	1 bag of 1000	1000	9.409 099
0.1 - 10	clear	10 racks of 96	960	9.409 045
1 - 200	yellow	1 bag of 1000	1000	9.409 046
1 - 200	clear	10 racks of 96	960	6.253 577
1 - 200	yellow	10 racks of 96	960	9.409 047
100 - 1000	blue	2 bags of 500	1000	9.409 048
100 - 1000	blue	10 racks of 96	960	9.409 049
100 - 5,000*	clear	1 bag of 250	250	9.409 097
100 - 5,000**	clear	1 bag of 250	250	6.254 364
1,000 - 10,000	clear	1 bag of 100	100	9.409 098

^{*}for manual pipettors

2 LLG-Low-Retention Pipette tips pipettes premium, non-sterile

Certified free of DNase, RNase, suitable for microbiology. Guaranteed metal-free.

Sample retention can be a major contributor to pipetting inaccuracy, and siliconization of tips has proved unsatisfactory because of autoclaving and contamination problems. For LLG pipette tips "Premium" a new polymer, Novelle-Polypropylene has been developed, that produces a "super slick surface" on our new LLG pipette tips "Premium", that actually improves with autoclaving and cannot leach from the tip surface. On average, Novelle Polymer and LLG pipette tips "Premium" reduces the tip retention by near 85% and decreases the standard deviation of the retained volume by more than 75%. Liquid handling accuracy and precision are crucial to success in today's molecular biology laboratories, especially for DNA analysis and protein handling. A significant culprit of pipette inaccuracy is binding of sample. The LLG pipette tips "Premium" reduces the binding, thus increasing sample delivery accuracy. Tests demonstrate that LLG pipette tips "Premium" significantly reduces the amount of DNA and protein bound by the tip. Furthermore LLG pipette tips "Premium" offer a marked improvement over the best low retention technologies.

Capacity	Colour	Package contents	PK	Cat. No.
μl				
0.1 - 10	Clear	1 bag of 1000	1000	9.409 038
0.1 - 10	Clear	10 racks of 96	960	9.409 039
1 - 200	Clear	1 bag of 1000	1000	9.409 041
1 - 200	Clear	10 racks of 96	960	9.409 042
100 - 1000	Clear	2 bags of 500	1000	9.409 043
100 - 1000	Clear	10 racks of 96	960	9.409 044

3 LLG-Low retention filter tips premium, sterile

Certified free of DNase, RNase, suitable for microbiology. Guaranteed metal-free. Sterility acc. to EN 552/ISO 11137 and DIN EN 556.

Filter pore size (effective) 4 to 6µm.

Also liquid handling accuracy and precision are crucial to success in today's molecular biology laboratories, especially for DNA analysis and protein handling. A significant culprit of pipette inaccuracy is binding of sample. The LLG-Filter tips reduce the binding, thus increasing sample delivery accuracy. Tests demonstrate that LLG-Filter tips "Premium" significantly reduce the amount of DNA and protein bound by the tip. Furthermore LLG-Filter tips "Premium" offer a marked improvement over the best low retention technologies.

Capacity	Colour	Package contents	PK	Cat. No.
μΙ				
0.1 - 10	Clear	10 racks of 96	960	9.409 033
1 - 20	Clear	10 racks of 96	960	9.409 034
1 - 100	Clear	10 racks of 96	960	9.409 035
1 - 200	Clear	10 racks of 96	960	9.409 036
100 - 1000	Clear	10 racks of 96	960	9.409 037



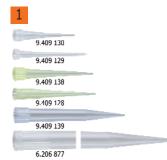




	0.1 - 10 µl	
Ξ	1.0 20 jil	
Ξ	E.O. THU FO	
	1.0 200 µl	
	100 1000 µi	

^{**}for electronic pipettors

8. Liquid Handling Pipettes/Pipette tips



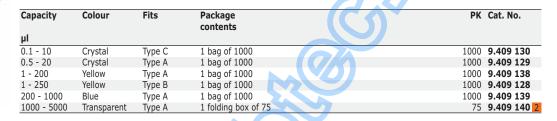
1 Pipette tips, non-sterile

Precise design and manufacture ensures highest quality tips.

- Moulded with high quality polypropylene
- Firm fit on pipettor cones
- Optimum handling due to straight shape
- Special ionization process guarantees dust free tip production
- Excellent transparency due to optimum surface quality
- Minimum fluid retention due to controlled raw material quality
- Excellent volumetric accuracy due to precisely moulded tip orifices
- Most practical tip volumes
- Non-sterile
- Autoclavable

Type A fits pipettors ratiopetta[®], Biohit[®] Proline, Biohit[®] m-Line, Brand[®] Transferpette[®], Eppendorf[®] Research[®], Eppendorf[®] Reference[®], Finnpipette[®] Digital, Finnpipette[®] Focus, Gilson[®] Pipetman[®], Gilson[®] Ultra, Socorex[®] Acura and Socorex[®] Calibra

Type B fits pipettors ratiopetta®, Gilson® Pipetman®, Gilson® Ultra, Socorex® Acura und Socorex® Calibra Type C fits pipettors ratiopetta®, Gilson® Pipetman®, Gilson® Ultra









9.409 140

Filter tips, PE-HD

Pipette tips with special filters, to effectively prevent the inner pipettor shaft from contamination with aerosols and liquids to be drawn into the pipettor.



- certified RNase- and DNase-free
- pipette tips and aerosol filters made of ultra-hydrophobic PE-HD
- minimized retention due to special surface treatment
- perfect and close fit on all major pipettor brands
- aeroject® 10µl xl has extended length for operation with narrow vessels and reduced risk of cross-contamination
- packed in plastic racks with hinge lids
- 10 to 200 µl tips packed acc. to 8 x 12 micro test plate footprint
- 100 1000 μl in 6 x 10 format

Fits pipettors: ratiopetta*, Biohit* Proline, Biohit* m-Line, Brand* Transferpette*, CappAero, Eppendorf* Research*, Eppendorf* Reference*, Finnpipette* Digital, Finnpipette* Focus, Gilson* Pipetman*, Gilson* Ultra, Labmate* and Socorex* Calibra, Labpipetten

Capacity	Package	PK	Cat. No.
	contents		
μl			
0.1 - 10	10 racks of 96	960	6.262 343
1 - 20	10 racks of 96	960	6.262 867 3
1 -100	10 racks of 96	960	6.262 868
1 - 200	10 racks of 96	960	6.262 869
100 - 1000	10 racks of 60	600	6.262 275



Ratiolab

Ratiolab

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1 2 3 Pipette tips and filter tips

Pipette tips and filter tips are manufactured by BRAND in a cleanroom under the most modern production conditions, and are automatically rack packed and packaged to ensure that the tips are of consistently high quality.

Quality features:

- High-purity polypropylene, free from DiHEMDA and oleamide
- Manufactured without lubricants
- Cadmium-free pigments
- Graduation for a quick volume check
- All tips and filter tips up to 1000 µl are free of DNA (<40 fg), RNase (<8.6 fg), endotoxins (<1 pg) and ATP (<1 fg)
- All sterile products in BIO-CERT® Quality: sterile acc. ISO 11 137 and AAMI guidelines, a SAL of 10-6 is obtained.
- Autoclavable at 121°C (2 bar), acc. DIN EN 285
- Environmentally friendly packaging systems
- CE-marked according to IVD-Directive 98/79 EC
- Pipette and filter tips from BRAND are tested for BRAND pipettes and most of the pipette types of Gilson®, Thermo Fisher Scientific Finnpipette®, Eppendorf® and Biohit.

The 5 ml tip is exclusively tested for BRAND pipettes and Thermo Fisher Scientific Finnpipette®. The 10 ml tip is suitable for BRAND, Eppendorf® and Gilson®.

All sizes up to 1000 µl available in 96-unit format.

Ultra Low Retention-tips

The surfaces of the Ultra Low Retention tips are produced through a special, patented physicochemical process. The homogeneous, defect-free surface thus produced has extremely low surface tension - over 50% less than PTFE. This significantly reduces sample loss and provides substantially higher reproducibility when working with critical media.

- Ideal for biological samples that contain detergents such as Triton® X-100, SDS, Tween etc.
- No additives that can be leached out! No siliconization of the surface!
- High chemical resistance. Ideal for working with solvents.
- The tips can be autoclaved at 121°C (2 bar) without damaging the material properties.

Filter Tips

Non-self-sealing filter tips from BRAND have a PE filter that is free from chemical additives. Permeability is controlled by the combination of pore size and filter length, so that no aerosols can reach the pipette shaft. These filters function with consistent reliability. On the other hand, liquids can pass very slowly should they accidentally contact the filter. Since the filter does not swell as in the case of self-sealing filter tips, the sample can be recovered from the filter by simply actuating the pipettes blow-out function, or by centrifugation if necessary. This is clearly an important advantage of non-self-sealing filters, especially when working with valuable samples. As an added advantage, the absence of filter additives protects samples from this source of contamination.

Bulk packed in reclosable bags.

All tips and filter tips are produced under supervised state-of-the-art clean-room conditions and automatically shrink-wrapped in reclosable bags and packaged in cardboard boxes. The batch number is printed on every bag.

TipBox, sterile and non sterile, BIO-CERT®

PP. Two different sizes. Stackable and repeatedly autoclavable at 121°C (2 bar), acc. DIN EN 285.

- All sizes up to 1000 μ l available in 96-unit format
- Dual function: hinged and push-on lid, simply rotate 180° to change closure method.
- Opening and closing with one hand. The clamping mechanism holds the tip-tray securely in the box.
- Transparent window for better all-round visual inspection.
- No deflection during tip loading. The tip-tray is fabricated from especially rigid PP.
- Usable with a partially loaded multichannel pipette. The rimless tip-tray border enables problem-free loading of individual pipette tips with multichannel instruments.
- Colored tip-trays with side panel labeling. The contents of the box are always clearly visible.

TipStack™, non sterile and sterile, BIO-CERT®

A tip tower containing 5 filled tip-trays and a TipBox constitute the new, space-saving refill system for 20 µl, 200 µl and 1000 µl tips. Tightly sealing spacers prevent the tips from getting stuck together, and ensure them to be free from DNA, RNases, endotoxins and ATP. The sterile TipStacks (BIO-CERT® quality) are supplied with a transfer aid for contamination-free use in a previously sterilized TipBox.

- All components are recyclable
- Reduced amount of waste
- Sterilizable and reusable TipBox
- High purity of the pipette tips and filter tips
- Space-saving design

TipRack, sterile and non sterile, BIO-CERT®

Refill unit for TipBox. Compared to the filled TipBoxes, the amount of waste with the new refill units is reduced by over 20%. All pipette tips and filter tips up to 1000 µl are free of DNA, RNases, endotoxins and ATP.

TipRacks in BIO-CERT® quality are supplied with a transfer aid that enables simple, contamination-free transfer into a previously sterilized TipBox. All tip-trays are printed on one side with information on the contents.

TipBox 5/10 ml, non sterile

The 5 ml and 10 ml tips are only available as a racked tip version in these specially corresponding TipBox.









1000

1000

9.409 199

9.409 192

BRAND

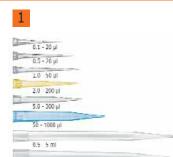
BRAND

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BRAND

BRAND

8. Liquid Handling Pipettes/Pipette tips

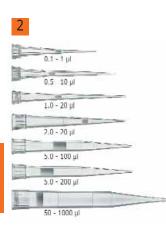


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Pipette tips, bulk, in reclosable bags, non-sterile

All tips and filter tips are produced under supervised state-of-the-art clean-room conditions and automatically shrink-wrapped in reclosable bags and packaged in cardboard boxes. The batch number is printed on every bag.

Capacity	Colour	Package	PK	Cat. No.
		contents		
μl				
0,1 - 20	natural	2 bags of 1000	2000	9.409 669
0,5 - 20	natural	2 bags of 1000	2000	9.409 670
1 - 50	natural	2 bags of 1000	2000	9.409 671
2 - 200	yellow	1 bag of 1000	1000	9.409 672
5 - 300	natural	1 bag of 1000	1000	9.409 673
50 - 1000	blue	2 bags of 500	1000	9.409 674
500 - 5000	natural	1 bag 200	200	9.409 223
1000 - 10000	natural	2 bags of 100	200	9.409 191
0,1 - 20	natural	10 bags of 1000 (XXL)	10000	9.409 675
0,5 - 20	natural	10 bags of 1000 (XXL)	10000	9.409 676
1- 50	natural	10 bags of 1000 (XXL)	10000	9.409 677
2 - 200	yellow	10 bags of 1000 (XXL)	10000	9.409 678
5 - 300	natural	10 bags of 1000 (XXL)	10000	9.409 679
50 - 1000	blue	10 bags of 500 (XXL)	5000	9.409 680



Filter pipette tips, in reclosable bags, non-sterile

500 - 5000

1000 - 10000

natural

All tips and filter tips are produced under supervised state-of-the-art clean-room conditions and automatically shrink-wrapped in reclosable bags and packaged in cardboard boxes. The batch number is printed on every bag.

5 bags of 200 (XXL)

10 bags of 100 (XXL)

Capacity	contents		PK	Cat. No.
μl				
0.1 - 1	1 bag of 960	A //	960	9.409 681
0.5 - 10	1 bag of 960	A </td <td>960</td> <td>9.409 682</td>	960	9.409 682
1.0 - 20	1 bag of 960		960	9.409 683
2 - 20	1 bag of 960		960	9.409 684
5 - 100	1 bag of 960		960	9.409 685
5 - 200	1 bag of 960		960	9.409 686
50 - 1000	1 bag of 960		960	9.409 687



3 Pipette tips, racked in TipRack, non-sterile

For TipBox. Refill unit, protected in an environmentally compatible packaging of recyclable PET.

	Capacity	Package contents	PK	Cat. No.
	μΙ			
у	0.1 - 20	10 TipRacks of 96	960	9.409 757
	0.5 - 20	10 TipRacks of 96	960	9.409 758
	1 - 50	10 TipRacks of 96	960	9.409 759
	2 - 200	10 TipRacks of 96	960	9.409 760
	5 - 300	10 TipRacks of 96	960	9.409 761
	50 - 1000	10 TipRacks of 96	960	9.409 762



Filter tips racked in TipRack, non-sterile

For TipBox. Refill unit, protected in an environmentally compatible packaging of recyclable PET.

Capacity	Package contents	PK	Cat. No.
μl			
0.1 - 1	10 TipRacks of 96	960	9.409 769
0.5 - 10	10 TipRacks of 96	960	9.409 770
1.0 - 20	10 TipRacks of 96	960	9.409 771
2 - 20	10 TipRacks of 96	960	9.409 772
5 - 100	10 TipRacks of 96	960	9.409 773
5 - 200	10 TipRacks of 96	960	9.409 774
50 - 1000	10 TipRacks of 96	960	9.409 775

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8. Liquid Handling **Pipettes/Pipette tips**

Pipette tips racked in TipRack, sterile, BIO-CERT®

For TipBox. Refill unit, protected in an environmentally compatible packaging of recyclable PET. Sterile TipRacks are supplied with a transfer aid so that the rack can be put into a previously autoclaved box without hand contact.

BRAND



Capacity	Package contents	PK	Cat. No.
μΙ			
0.1 - 20	10 TipRacks à 96	960	9.409 763
0.5 - 20	10 TipRacks à 96	960	9.409 764
1 - 50	10 TipRacks à 96	960	9.409 765
2 - 200	10 TipRacks à 96	960	9.409 766
5 - 300	10 TipRacks à 96	960	9.409 767
50 - 1000	10 TipRacks à 96	960	9.409 768

Filter tips racked in TipRack, sterile, BIO-CERT®

NEW

BRAND



For TipBox. Refill unit, protected in an environmentally compatible packaging of recyclable PET. Sterile TipRacks are supplied with a transfer aid so that the rack can be put into a previously autoclaved box without hand contact.

Capacity	Package contents	M	PK	Cat. No.
μl				
0.1 - 1	10 TipRacks à 96		960	9.409 776
0.5 - 10	10 TipRacks à 96		960	9.409 777
1.0 - 20	10 TipRacks à 96		960	9.409 778
2 - 20	10 TipRacks à 96		960	9.409 779
5 - 100	10 TipRacks à 96		960	9.409 780
5 - 200	10 TipRacks à 96		960	9.409 781
50 - 1000	10 TipRacks à 96		960	9.409 782
	•	. IVA: 7		

Filter tips, racked in TipBox, PP, non-sterile





PP. With hinged lid/push-on lid. Simply rotate 180° to change closure method. Usable with a partially loaded multichannel pipette. Two different sizes. Stackable and repeatedly autoclavable at 121°C (2 bar), acc. DIN EN 285.

Capacity	Description	Package	PK	Cat. No.
		contents		
μl				
0.1 - 1	Standard	5 boxes of 96	480	9.409 700
0.5 - 10	Standard	5 boxes of 96	480	9.409 701
1.0 - 20	Standard	5 boxes of 96	480	9.409 702
2 - 20	Standard	5 boxes of 96	480	9.409 703
5 - 100	Standard	5 boxes of 96	480	9.409 704
5 - 200	Standard	5 boxes of 96	480	9.409 705
50 - 1000	Standard	5 boxes of 96	480	9.409 706
0.1 - 1	Low Retention	5 boxes of 96	480	9.409 707
0.5 - 10	Low Retention	5 boxes of 96	480	9.409 708
1.0 - 20	Low Retention	5 boxes of 96	480	9.409 709
2 - 20	Low Retention	5 boxes of 96	480	9.409 712
5 - 100	Low Retention	5 boxes of 96	480	9.409 713
5 - 200	Low Retention	5 boxes of 96	480	9.409 714
50 - 1000	Low Retention	5 boxes of 96	480	9.409 715



Pipette tips, racked in TipBox, PP, non-sterile

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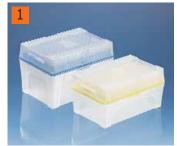
BRAND

PP. With hinged lid/push-on lid. Simply rotate 180° to change closure method. Usable with a partially loaded multichannel pipette. Two different sizes. Stackable and repeatedly autoclavable at 121°C (2 bar), acc. DIN EN 285.

Capacity	Description	Package	PK	Cat. No.
		contents		
μΙ				
0.1 - 20	Standard	5 Boxes of 96	480	9.409 688
0.5 - 20	Standard	5 Boxes of 96	480	9.409 689
1 - 50	Standard	5 Boxes of 96	480	9.409 690
2 - 200	Standard	5 Boxes of 96	480	9.409 691
5 - 300	Standard	5 Boxes of 96	480	9.409 692
50 - 1000	Standard	5 Boxes of 96	480	9.409 693
0.1 - 20	Low Retention	5 Boxes of 96	480	9.409 694
0.5 - 20	Low Retention	5 Boxes of 96	480	9.409 695
1 - 50	Low Retention	5 Boxes of 96	480	9.409 696
2 - 200	Low Retention	5 Boxes of 96	480	9.409 697
5 - 300	Low Retention	5 Boxes of 96	480	9.409 698
50 - 1000	Low Retention	5 Boxes of 96	480	9.409 699



8. Liquid Handling Pipettes/Pipette tips



Pipette tips, racked in Tip-Box, sterile, Bio-Cert®

(NEW) BRAND

PP. With hinged lid/push-on lid. Simply rotate 180° to change closure method. Usable with a partially loaded multichannel pipette. Two different sizes. Stackable and repeatedly autoclavable at 121°C (2 bar), acc. DIN EN 285.

Capacity	Description	Package contents	PK	Cat. No.
μΙ				
0.1 - 20	Standard	10 boxes of 96	960	9.409 716
0.5 - 20	Standard	10 boxes of 96	960	9.409 717
1 - 50	Standard	10 boxes of 96	960	9.409 718
2 - 200	Standard	10 boxes of 96	960	9.409 719
5 - 300	Standard	10 boxes of 96	960	9.409 721
50 - 1000	Standard	10 boxes of 96	960	9.409 722
0.1 - 20	Low Retention	10 boxes of 96	960	9.409 730
0.5 - 20	Low Retention	10 boxes of 96	960	9.409 733
1 - 50	Low Retention	10 boxes of 96	960	9.409 734
2 - 200	Low Retention	10 boxes of 96	960	9.409 735
5 - 300	Low Retention	10 boxes of 96	960	9.409 736
50 - 1000	Low Retention	10 boxes of 96	960	9.409 737



Filter tips, racked in TipBox, sterile, Bio-Cert®

NEW) BRAND

PP. With hinged lid/push-on lid. Simply rotate 180° to change closure method. Usable with a partially loaded multichannel pipette. Two different sizes. Stackable and repeatedly autoclavable at 121°C (2 bar), acc. DIN EN 285.

Capacity	Description	Package contents	PK	Cat. No.
μΙ		contents		
0.1 - 1	Standard	10 boxes of 96	960	9.409 723
0.5 - 10	Standard	10 boxes of 96	960	9.409 724
1.0 - 20	Standard	10 boxes of 96	960	9.409 725
2 - 20	Standard	10 boxes of 96	960	9.409 726
5 - 100	Standard	10 boxes of 96	960	9.409 727
5 - 200	Standard	10 boxes of 96	960	9.409 728
50 - 1000	Standard	10 boxes of 96	960	9.409 729
0.1 - 1	Low Retention	10 boxes of 96	960	9.409 738
0.5 - 10	Low Retention	10 boxes of 96	960	9.409 739
1.0 - 20	Low Retention	10 boxes of 96	960	9.409 740
2 - 20	Low Retention	10 boxes of 96	960	9.409 741
5 - 100	Low Retention	10 boxes of 96	960	9.409 742
5 - 200	Low Retention	10 boxes of 96	960	9.409 743
50 - 1000	Low Retention	10 boxes of 96	960	9.409 744



3 Pipette tips refill TipStack™, non-sterile

NEW! BRAND

Space-saving, environmentally compatible refill system for TipBox. 5 racks, each having 96 tips incl. 1 TipBox. Each packaging unit contains 2 TipStacks.

	Capacity	Description	Package	PK	Cat. No.
	μΙ		contents		
	0.5 - 20	Standard	2 x 5 TipRacks à 96	960	9,409 745
	2 - 200	Standard	2 x 5 TipRacks à 96	960	9.409 746
4	50 - 1000	Standard	2 x 5 TipRacks à 96	960	9.409 747
	0.5 - 20	Low Retention	2 x 5 TipRacks à 96	960	9.409 751
	2 - 200	Low Retention	2 x 5 TipRacks à 96	960	9.409 752
1	50 - 1000	Low Retention	2 x 5 TinRacks à 96	960	9,409 753



Pipette tips refill TipStack™, sterile, BIO-CERT®



BRAND

Space-saving, environmentally compatible refill system for TipBox. 5 racks, each having 96 tips incl. 1 TipBox. Sterile TipStacks are supplied with a transfer aid so that the rack can be put into a previously autoclaved box without hand contact. Each packaging unit contains 2 TipStacks.

Capacity	Description	Package contents	PK	Cat. No.
μΙ				
0.5 - 20	Standard	2 x 5 racks of 96	960	9.409 748
2 - 200	Standard	2 x 5 racks of 96	960	9.409 749
50 - 1000	Standard	2 x 5 racks of 96	960	9.409 750
0.5 - 20	Low Retention	2 x 5 racks of 96	960	9.409 754
2 - 200	Low Retention	2 x 5 racks of 96	960	9.409 755
50 - 1000	Low Retention	2 x 5 racks of 96	960	9.409 756

E & OE.

Standard

8. Liquid Handling **Pipettes/Pipette tips**

The 5 ml and 10 ml tips are only available as a racked tip version in these specially BRAND corresponding TipBox. Volume Description Package Cat. No. contents ml 1 TipBox of 28 1 TipBox of 18 9.408 905 0.5 - 5 Standard 28



TipBox, PP, with Tip-Tray, empty

TipBox 5/10 ml, non-sterile

PP. With hinged lid/push-on lid. Two different sizes. Stackable and repeatedly autoclavable at 121°C (2 bar), acc. DIN EN 285. This box can be refilled with TipRack (non-sterile) and TipStack (sterile).

Capacity µl	Description	PK	Cat. No.
up to 50	TipBox, empty	1	9.409 783
up to 200	TipBox, empty		9.409 784
up to 300	TipBox, empty	1	9.409 785
up to 1000	TipBox, empty	1	9.409 786



BRAND

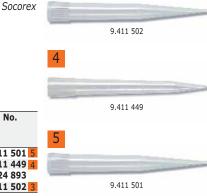
NEW

Pipette tips Qualitips®

The Socorex Qualitips® are exclusively made from high grade, virgin, metal-free polypropylene. Precision injection moulding care for air-tight fit. Stringent quality procedures ensure lot by lot consistency. Wide selection, superior quality. Compatibility with various pipette brands.

- High density filter prevents aerosol contamination
- DNAse and RNAse-free filter tips
- Pyrogen-free sterile filter tips

Capacity	Colour	Package contents		PK	Cat. No.
ml					
2	natural	2 bags of 250		500	9.411 501 5
5	natural	2 bags of 250		500	9.411 449 4
5	natural	2 racks of 50	1 (7/A) *	100	6.224 893
10	natural	3 bags of 100		300	9.411 502 3





8. Liquid Handling Pipettes/Pipette tips



Pipete tips Optifit

NEW!

Optifit tips are designed for best possible fitting and sealing to secure the highest possible accuracy and precision. These pipette tips enable ergonomic and light tip attachment by being compatible with the Optiload feature in Sartorius Picus® NxT, Picus®, eLINE®, mLINE® and Proline® Plus pipettes. While Optifit Tip trays are colour coded for easy matching with a corresponding, colour coded Sartorius pipette, they do also match with most other pipettes due to their universal design. Optifit tips are manufactured in an ISO 8 certified cleanroom environment and are available in various packaging types.

Capacity	Description	Package contents	PK	Cat. No.
μl		Contents		
100 - 5000	150mm, Tip ID: J, non-sterile	1 rack of 50	50	6.206 247
100 - 5000	150mm, Tip ID: J, pre-sterilised	1 rack of 50	50	6.238 066
100 - 5000	150mm, Tip ID: J, non-sterile	1 box of 100	100	7.607 378
	150mm, Tip ID: J, non-sterile	1 box of 1000	1000	6.203 851
0.5 - 10	242mm, Tip ID: K, non-sterile Extra long Tip for MidiPlus	1 box of 100	100	6.205 144
0.5 - 200	51mm, Tip ID: C, non-sterile	10 racks of 96	960	6.902 461
50 - 1200	71.5mm, Tip ID: H, non-sterile	10 racks of 96	960	6.204 651
50 - 1200	71.5mm, Tip ID: H, pre-sterilised	10 racks of 96	960	6.251 705
50 - 1200	71.5mm, Tip ID: H, non-sterile	Refill Pack, 10 racks of 96	960	6.224 347
50 - 1200	71.5mm, Tip ID: H, pre-sterilised	Refill Pack, 10 racks of 96	960	7.658 803
50 - 1200	71.5mm, Tip ID: H, non-sterile	1 box of 1000	1000	7.607 933
10 - 1000	71.5mm, Tip ID: E, non-sterile	10 racks of 96	960	6.226 809
10 - 1000	71.5mm, Tip ID: E, pre-sterilised	10 racks of 96	960	6.234 568
10 - 1000	71.5mm, Tip ID: E, non-sterile	10 racks of 96	960	6.226 833
10 - 1000	71.5mm, Tip ID: E, pre-sterilised	Refill Pack, 10 racks of 96	960	6.259 767
10 - 1000	71.5mm, Tip ID: E, non-sterile	1 box of 1000	1000	7.612 528
10 - 1000	71.5mm, Tip ID: E, non-sterile	1 box of 400	400	6.206 520
10 - 1000	68.5mm, Tip ID: G, pre-sterilised	10 racks of 96	960	6.233 869
50 - 1200	90mm, Tip ID: Z, non-sterile	10 racks of 96	960	6.206 521
5 - 350	54mm, Tip ID: D, non-sterile	10 racks of 96	960	6.225 217
5 - 350	54mm, Tip ID: D, pre-sterilised	10 racks of 96	960	6.234 567
5 - 350	54mm, Tip ID: D, non-sterile	Refill Tower, 10 racks of 96	960	6.239 400
5 - 350	54mm, Tip ID: D, non-sterile	1 box of 1000	1000	6.224 919
0.1 - 10	31.5mm, Tip ID: A, non-sterile	10 racks of 96	960	6.241 795
0.1 - 10	31.5mm, Tip ID: A, pre-sterilised	10 racks of 96	960	6.238 320
0.1 - 10	31.5mm, Tip ID: A, non-sterile	Refill Tower, 10 racks of 96	960	7.970 516
0.1 - 10	31.5mm, Tip ID: A, pre-sterilised	Refill Pack, 20 racks of 96	1920	7.970 541
0.1 - 10	31.5mm, Tip ID: A, non-sterile	1 box of 1000	1000	6.225 481
0.5 - 200	51mm, Tip ID: C, pre-sterilised	10 racks of 96	960	6.238 319
0.5 - 200	51mm, Tip ID: C, non-sterile	Refill Tower, 10 racks of 96	960	6.235 565

2



2 Pipette tips Finntip 10

This tip is specially designed for pipetting micro-sized drops. It is ideal for use with micro volume Finnpipettes.

Description Capacity Package PK Cat. No. contents 1 bag of 1000 6.080 908 0.2 - 10 non sterile 10 racks of 96 0.2 - 10 non sterile 960 6.084 681 0.2 - 10 0.2 - 10 10 racks of 96 960 6.224 231 sterile non sterile 4 racks of 192 + 10 refill packs of 192 6.228 718 2688 20 refill packs of 196 non sterile 0.2 - 10 3840 6.228 719

3



3 Pipette tips Finntip 20

The Finntip 20 is suitable for applications requiring high precision and volumes of 0.2-20µl. The tips are provided in convenient racks of 384 tips.

Thermo Scientific

Thermo Scientific

Capacity	Description	Package contents	PK	Cat. No.
μl				
0.2 - 20	non sterile	1 bag of 1000	1000	6.224 412
0.2 - 20	non sterile	10 racks of 384	3840	6.228 720
0.2 - 20	sterile	10 racks of 384	3840	9.282 500

904 E & OE.

8. Liquid Handling Pipettes/Pipette tips

Pipette tips Finntip 50

For use with the 16 channel multichannel. Will also fit micro volume single channels, volume $50\mu l$ length 43mm.

Thermo Scientific

Capacity	Description	Package contents	PK	Cat. No.
μl				
0.5 - 50	non sterile	1 bag of 1000	1000	6.301 604
0.5 - 50	non sterile	10 racks of 384	3840	6.301 538
0.5 - 50	sterile	10 racks of 384	3840	9.282 501



Pipette tips Finntip 200 Extended

The Finntip 200 extended is an extra-long, tapered tip. It is designed to fit in extremely narrow vessels.

Thermo Scientific

Capacity	Description	Package contents	PK	Cat. No.
μl				
5 - 200	non sterile	1 box of 400	400	6.222 480
5 - 200	non sterile	10 racks of 96	960	6.227 486
5 - 200	sterile	10 racks of 96	960	6.224 233

3 Pipette tips Finntip 250 Universal

This quality product is ideal for single channel and multichannel Finnpipettes. It was also designed to be used with pipettes from other manufacturers. Finntip universals are also available in refill packs.

Thermo Scientific



Capacity	Description	Package		PK	Cat. No.
		contents			
μΙ					
0.5 - 250	non sterile	1 box of 500		500	6.070 424
0.5 - 250	non sterile	1 bag of 1000		1000	6.092 728
0.5 - 250	non sterile	1 bag of 20,000		20000	6.228 715
0.5 - 250	non sterile	10 racks of 96		960	6.082 633
0.5 - 250	sterile	10 racks of 96	. 1	960	6.510 864
0.5 - 250	non sterile	4 racks of 96 + 10 refill packs of 96		1344	6.228 716
0.5 - 250	non sterile	20 refill packs of 96		1920	6.803 185

4 Pipette tips Finntip 300

These tips were specially designed for the Finnpipette multichannels (reverse pipetting is possible with the 300μ l). The Finntip 300μ l is also suitable for single channel pipets in the 5-200 μ l range. The packaging options include refill packs.

Thermo Scientific



Capacity	Description	Package contents	PK	Cat. No.
μΙ				
5 - 300	non sterile	1000/Bag	1000	6.057 011
5 - 300	non sterile	20.000/Bulk	20000	6.224 235
5 - 300	non sterile	10x96/Rack	960	6.056 947
5 - 300	sterile	10x96/Rack	960	6.084 976
5 - 300	non sterile	10x192/Refill	1920	6.204 184

we can Supply this manufacturer's whole product range!



8. Liquid Handling **Pipettes/Pipette tips**



Pipette tips Finntip Flex

The Thermo Scientific Finntip Flex system offers flexible, soft and sophisticated high-end Thermo Scientific tips for discerning users. Finntip Flex system consisting new-generation tips and easy-to-use operation rack and space-saving refill kit. All elements in the system have been designed to fulfill the most demanding requirements for ergonomics and flexibility in pipetting tasks for todays fast-paced aboratories.

- Low attachment and ejection forces
- High precision molding with virgin polypropylene
- Smooth surface for low liquid retention
- Non-slip rack with hinged cover
- Easy to use and economical refill system





Pipette tips Finntip Flex 10

				mem	io Scientinic
Capacity	Description	Package contents		PK	Cat. No.
μl		contents			
0.2 - 10	non sterile	1 bag of 1000		1000	9.282 510
0.2 - 10	non sterile	10 racks of 96		960	9.282 511
0.2 - 10	sterile	10 racks of 96		960	9.282 512
0.2 - 10	non sterile	1 rack of 96 + 20 refill packs of 96		2016	9.282 513
0.2 - 10	non sterile	20 refill packs of 96		1920	9.282 514



Pipette tips Finntip Flex 200

Thermo	Scien	tifi
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Capacity	Description	Package contents	PK	Cat. No.
μl		ΑΛΥ		
1 - 200	non sterile	1 bag of 1000	1000	9.282 515
1 - 200	non sterile	10 racks of 96	960	9.282 516 3
1 - 200	sterile	10 racks of 96	960	9.282 517
1 - 200	non sterile	1 rack of 96 + 20 refill packs of 96	2016	9.282 518
1 - 200	non sterile	20 refill packs of 96	1920	9.282 519





Pipette tips Finntip Flex 300

Thermo Scientific

Capacity Descri		Description	iption Package contents		
	μl				
	5 - 300	non sterile	1 bag of 1000	1000 6.228 755	
	5 - 300	non sterile	10 racks of 96	960 6.224 234 4	
	5 - 300	sterile	10 racks of 96	960 6.228 752	
	5 - 300	non sterile	1 rack of 96 + 20 refill packs of 96	2016 6.228 753	
	5 - 300	non sterile	20 refill nacks of 96	1920 6.228 754	



Pipette tips Finntip Flex 1000

Thermo Scientific

Capacity	Description	Package contents	PK	Cat. No.
μl				
100 - 1000	non sterile	1 bag of 1000	1000	6.235 571
100 - 1000	non sterile	10 racks of 96	960	6.230 775 5
100 - 1000	sterile	10 racks of 96	960	9.282 520
100 - 1000	non sterile	1 rack of 96 + 16 refill packs of 96	1632	9.282 521
100 - 1000	non sterile	16 refill packs of 96	1536	9.282 522

6.230 775

E & OE.

8. Liquid Handling Pipettes/Pipette tips

1 Pipette tips Finntip Flex 1200

Thermo Scientific

Capacity	Description	Package contents	PK	Cat. No.
μl				
50 - 1200	non sterile	1 bag of 1000	1000	6.228 758
50 - 1200	non sterile	10 racks of 96	960	6.228 756
50 - 1200	sterile	10 racks of 96	960	6.228 757
50 - 1200	non sterile	1 rack of 96 + 16 refill packs of 96	1632	9.282 523
50 - 1200	non sterile	16 refill packs of 96	1536	9.282 524



Pipette tips Finntip Flex Extended

Thermo Scientific

Capacity	Description	Package contents	PK	Cat. No.
μl				
1000 - 10000	non sterile	1 bag of 100	100	7.651 616
1000 - 10000	sterile	1 bag of 50	50	9.282 525

3 Pipette tips Finntip Flex Filter, sterile

3

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17	10	rrr	111	->/	10	ГH	111	17

Capacity	Description	Package contents	PK	Cat. No.
μl				
0.2 - 10	sterile	10 racks of 96	960	9.282 526
1 - 30	sterile	10 racks of 96	960	9.282 527
1 - 100	sterile	10 racks of 96	960	9.282 528
1 - 200	sterile	10 racks of 96	960	9.282 529
5 - 300	sterile	10 racks of 96	960	9.282 530
100 - 1000	sterile	10 racks of 96	960	9.282 531
50 - 1200	sterile	10 racks of 96	960	9.282 532
1000 - 10000	sterile	1 bag of 50	50	9.282 533

4 Pipette tips Finntip 1000

4

This mid-size tip comes in several pack sizes. The 10×96 rack is available sterile.

Thermo Scientific

Capacity	Description	Package contents	PK	Cat. No.
μl				
100 - 1000	non sterile	1 box of 200	200	6.085 561
100 - 1000	non sterile	1 bag of 1000	1000	6.085 852
100 - 1000	non sterile	1 bag of 10,000	10000	6.076 481
100 - 1000	non sterile	10 racks of 96	960	6.802 498
100 - 1000	sterile	10 racks of 96	960	6.206 884
100 - 1000	non sterile	5 refill packs of 192	960	6.228 679



5 Pipette tips Finntip 1000 Extended

Tapered to 105mm in length the Finntip 1000 extended allows access to the narrowest container.

Thermo Scientific

Capacity	Description	Package PK contents	Cat. No.
100 - 1000	non sterile	1 bag of 1000 1000	7.200 433
100 - 1000	non sterile	5 racks of 96 480	6.224 236
100 - 1000	sterile	5 racks of 96 480	6.228 676



6 Pipette tips Finntip 5ml

Designed to prevent foaming and vortexing, this tip fits into all common sizes of Ihermo Scientific laboratory vessels.

Capacity	Description	Package contents	PK	Cat. No.
μΙ				
1000 - 5000	non sterile	1 box of 75	75	6.076 989
1000 - 5000	non sterile	1 bag of 500	500	6.510 003
1000 - 5000	non sterile	1 bag of 3000	3000	6.058 016
1000 - 5000	non sterile	5 racks of 54	270	6.053 602
1000 - 5000	sterile	5 racks of 54	270	6.900 937



8. Liquid Handling Pipettes/Pipette tips



1 Pipette tips Finntip 10 ml

The Finntip 10 ml was designed to eliminate vortexing and prevent foaming in the sample liquid.

Thermo Scientific

Capacity	Description	Package contents	PK	Cat. No.
μΙ				
2000 - 10000	non sterile	1 box of 40	40	6.051 993
2000 - 10000	non sterile	1 bag of 100	100	6.051 307
2000 - 10000	non sterile	5 racks of 24	120	6.051 881
2000 - 10000	sterile	5 racks of 24	120	6.228 721





- Volume range 0.2µl-10ml
- Thirteen different models including extended versions
- Filters made from polyethylene, cannot be autoclaved
- Supplied in vacuum sealed sterilized tip racks
- Ideal for PCR and other amplification methods
- Pipetting of radioactive and infectious samples
- Certified free from endotoxin, DNA, DNase, RNase Type

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Capacity	Length	Description	Package contents	PK	Cat. No.
μl	mm				
0.2 - 10	32	sterile	10 racks of 96	960	6.224 227
0.2 - 20	33	sterile	10 racks of 384	3840	9.282 544
0.2 - 50	48	sterile	10 racks of 384	3840	6.228 742
0.5 - 10	52	sterile	10 racks of 96	960	6.224 228
0.5 - 20	52	sterile	10 racks of 96	960	6.228 743
0.5 - 30	52	sterile	10 racks of 96	960	6.228 744
0.5 - 100	52	sterile	10 racks of 96	960	6.076 896
5 - 100	78	sterile	10 racks of 96	960	6.228 745
0.5 - 200	52	sterile	10 racks of 96	960	6.224 229
5 - 200	78	sterile	10 racks of 96	960	6.228 746
5 - 300	52	sterile	10 racks of 96	960	6.228 747
100 - 1000	71	sterile	10 racks of 96	960	6.085 289
100 - 1000	105	sterile	5 racks of 96	480	6.228 748
500 - 5000	147	sterile	5 racks of 54	270	6.224 230
1000 - 10000	15	sterile	5 racks of 24	120	6.228 750





3 Pipette tips Finntip Wide

With its wide orifice tip, the Finntip Wide was designed especially for pipetting fragile cell suspensions and macromolecules like genomic DNA. This tip eliminates the mechanical shearing that causes cell fragmentation.

Thermo Scientific

Capacity	Description	Package contents	PK	Cat. No.
μl				
10 - 250	non sterile	1 bag of 1000	1000	9.282 552
10 - 250	non sterile	10 racks of 96	960	9.282 554
10 - 250	sterile	10 racks of 96	960	9.282 555
100 - 1000	non sterile	1 bag of 400	400	6.206 960
100 - 1000	non sterile	1 bag of 6500	6500	6.228 740
100 - 1000	non sterile	10 racks of 96	960	6.089 601
100 - 1000	sterile	10 racks of 96	960	9.282 556



4 Pipette tips Finntip BioCon

- Certified free from endotoxin, DNA, DNase, RNase
- Supplied individually packed
- Ideal for PCR and other purity demanding applications

Thermo Scientific

Capacity	Description	Package contents	PK	Cat. No.
μl				
0.2 - 10	sterile	1 box of 100	100	6.224 232
0.5 - 250	sterile	1 box of 100	100	9.282 570
10 - 1000	sterile	1 box of 50	50	6.228 751

8. Liquid Handling Pipettes/Pipette tips

1 epT.I.P.S. Set

Starter kit, consisting of one epT.I.P.S box filled with tips and 4 reload trays.

Eppendorf

Capacity	Length	Colour	Package contents	PK	Cat. No.
μl	mm		contents		
0.1 - 10	34	anthracite	1 box with 5 trays of 96	480	9.409 480
0.1 - 20	40	grey	1 box with 5 trays of 96	480	9.409 481
0.5 - 20	46	light grey	1 box with 5 trays of 96	480	9.409 482
2 - 200	53	yellow	1 box with 5 trays of 96	480	9.409 483
20 - 300	55	orange	1 box with 5 trays of 96	480	9.409 484
50 - 1000	71	blue	1 box with 5 trays of 96	480	9.409 485
50 - 1250	76	green	1 box with 5 trays of 96	480	9.409 486
500 - 2500	115	red	1 box with 5 trays of 48	240	9.409 487



2 Pipette tips epT.I.P.S. Box

- Work box, filled with tips

- autoclavable

- contamination-free refilling system suitable for loading epT.I.P.S reloads

Eppendorf



Capacity	Length	Colour	Package contents	PK	Cat. No.
μl	mm				
0.1 - 10	34	anthracite	1 box of 96	96	9.409 470
0.1 - 20	40	grey	1 box of 96	96	9.409 471
0.5 - 20	46	light grey	1 box of 96	96	9.409 472
2 - 200	53	yellow	1 box of 96	96	9.409 473
20 - 300	55	orange	1 box of 96	96	9.409 474
50 - 1000	71	blue	1 box of 96	96	9.409 475
50 - 1250	76	green	1 box of 96	96	9.409 476
50 - 1250	103	dark green	1 box of 96	96	6.238 120
500 - 2500	115	red	1 box of 48	48	9.409 477
100 - 5000	120	purple	1 box of 24	24	9.409 478

Pipette tips epT.I.P.S. Standard

Original Eppendorf, high quality, pipette tips at an attractive price.

- packed in multi sealable bag

- tips available in various sizes from 10µl up to 10ml

Eppena	lorf
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Length	Colour	Package	PK	Cat. No.
		contents		
mm				
34	anthracite	2 bags of 500	1000	9.409 410
40	grey	2 bags of 500	1000	9.409 411
46	light grey	2 bags of 500	1000	9.409 412
53	yellow	2 bags of 500	1000	9.409 413
55	orange	2 bags of 500	1000	9.409 414
71	blue	2 bags of 500	1000	9.409 415
76	green	2 bags of 500	1000	9.409 416
103	dark green	2 bags of 500	1000	6.238 121
115	red	5 bags of 100	500	9.409 417
120	purple	5 bags of 100	500	9.409 418
165	turquoise	2 bags of 100	200	9.409 403
243	turquoise	2 bags of 100	200	9.409 404
	mm 34 40 46 53 55 71 76 103 115 120 165	mm 34 anthracite 40 grey 46 light grey 53 yellow 55 orange 71 blue 76 green 103 dark green 115 red purple 165 turquoise 165 turquoise 165 dark green 165 turquoise 165 t	mm contents 34 anthracite 2 bags of 500 40 grey 2 bags of 500 46 light grey 2 bags of 500 53 yellow 2 bags of 500 55 orange 2 bags of 500 71 blue 2 bags of 500 76 green 2 bags of 500 103 dark green 2 bags of 500 115 red 5 bags of 100 120 purple 5 bags of 100 165 turquoise 2 bags of 100	contents mm 34 anthracite 2 bags of 500 1000 40 grey 2 bags of 500 1000 46 light grey 2 bags of 500 1000 53 yellow 2 bags of 500 1000 55 orange 2 bags of 500 1000 71 blue 2 bags of 500 1000 76 green 2 bags of 500 1000 103 dark green 2 bags of 500 1000 115 red 5 bags of 100 500 120 purple 5 bags of 100 500 165 turquoise 2 bags of 100 200

4 epT.I.P.S. Standard, clear

					Eppendorf
Capacity	Length	Colour	Package contents	PK	Cat. No.
μΙ	mm				
2 - 200	53	clear	1 pack of 1000	1000	9.409 407
20 - 300	55	clear	1 pack of 1000	1000	9.409 408
50 - 1000	71	clear	1 pack of 1000	1000	9.409 409



Eppendorf

Eppendorf

Eppendorf

Eppendorf

8. Liquid Handling Pipettes/Pipette tips



1 epT.I.P.S. Reloads

- Practical refilling system for epT.I.P.S box
- Trays supplied either double-sided or as stack packs, depending on tip size
- Contamination-free transfer to the trays into the work box
- Autoclavable trays are available
- Colour-coded trays for simple identification of the tips.

Capacity	Length	Colour	Package contents	~(PK	Cat. No.
μl	mm					•
0.1 - 10	34	anthracite	10 trays of 96		960	9.409 450
0.1 - 20	40	grey	10 trays of 96		960	9.409 451
0.5 - 20	46	light grey	10 trays of 96		960	9.409 452
2 - 200	53	yellow	10 trays of 96		960	9.409 453
20 - 300	55	orange	10 trays of 96		960	9.409 454
50 - 1000	71	blue	10 trays of 96		960	9.409 455
50 - 1250	76	green	10 trays of 96		960	9.409 456
50 - 1250	103	dark green	10 trays of 96		960	6.238 117
500 - 2500	115	red	10 trays of 96		480	9.409 457



2 epT.I.P.S. Reloads

- practical refilling system for epT.I.P.S. Box
- workbox with tips
- autoclavable
- PCR quality
- certified free from human DNA, DNase, RNase and PCR inhibitor

Capacity	Length	Colour	Package contents	PK	Cat. No.
μΙ	mm				
0.1 - 10	34	anthracite	10 trays of 96	960	9.409 460
0.1 - 20	40	grey	10 trays of 96	960	9.409 461
0.5 - 20	46	light grey	10 trays of 96	960	9.409 462
2 - 200	53	yellow	10 trays of 96	960	9.409 463
20 - 300	55	orange	10 trays of 96	960	9.409 464
50 - 1000	71	blue	10 trays of 96	960	9.409 465
50 - 1250	76	green	10 trays of 96	960	9.409 466
50 - 1250	103	dark green	10 trays of 96	960	6.238 118
500 - 2500	115	red	10 trays of 48	480	9.409 467



3 epT.I.P.S. Racks, Biopur®

Highest biological purity Eppendorf Biopur pipette tips (sterile, pyrogen-, RNase-, DNA-, ATP-free)

- batch controlled
- batch specific certificate available on request
- individually boxed racks, 5 Boxes per pack

Capacity	Length	Colour	Package contents	PK	Cat. No.
μΙ	mm				
0.1 - 20	40	grey	5 racks of 96	480	9.409 430
2 - 200	53	yellow	5 racks of 96	480	9.409 431
20 - 300	55	orange	5 racks of 96	480	9.409 432
50 - 1000	71	blue	5 racks of 96	480	9.409 433
50 - 1250	76	green	5 racks of 96	480	9.409 434
50 - 1250	103	dark green	5 racks of 96	480	6.238 119
500 - 2500	115	red	5 racks of 48	240	9.409 435
1000 - 10000	165	turquoise	5 racks of 24	120	9.409 405



4 epT.I.P.S. Singles, Biopur®

- Eppendorf Biopur $^{\! \otimes}$ Individually blister-packed tips
- Batch number and the date of expiry indicated on each blister pack
- Batch specific certificate on request
- Biopur quality: sterile, Pyrogen, RNAse-, DNA and ATP free

Capacity	Length	Colour	PK	Cat. No.
μΙ	mm			
0.1 to 20	40	grey	100	9.409 420
2 to 200	53	yellow	100	9.409 421
50 to 1000	71	blue	100	9.409 422

E & OE.

1 2 epT.I.P.S. Dualfilter tips

 Pipette tips boxed in racks with integral, twin-layer ep Dualfilter made from hydrophobic polyethylene without additives. One layer protects the user against aerosols, the other against airborne microbes

- Eppendorf
- All tips are **sterile**, **pyrogen free** and **PCR clean** (free from human DNA, DNase, RNase, PCR Inhibitors)
- batch specific certificate available on request
- The filter doesn't retain liquid when accidentally wetted during aspiration, the whole sample can be recovered easily

Capacity	Length	Colour	Package contents	PK	Cat. No.
μl	mm				
0.1 - 10	34	anthracite	10 racks of 96	960	9.409 440
0.1 - 10	40	anthracite	10 racks of 96	960	9.409 441
0.5 - 20	46	light grey	10 racks of 96	960	9.409 442
2 - 20	53	yellow	10 racks of 96	960	9.409 443
2 - 100	55	yellow	10 racks of 96	960	9.409 444
2 - 200	59	yellow	10 racks of 96	960	9.409 448
20 - 300	55	orange	10 racks of 96	960	9.409 445
50 - 1000	76	blue	10 racks of 96	960	9.409 446
50 - 1250	103	dark green	5 racks of 96	480	6.237 379
100 - 5000	120	purple	5 racks of 24	120	9.409 447
1000 - 10000	243	blue	100 tips, single packed	100	9.409 406





3 4 Pipette tips epT.I.P.S. LoRetention

Ideally suited for all applications with samples that contain detergents:

- PCR and real-time PCR preparation of enzyme solutions and master mixes
- Isolation, purification and denaturation of proteins
- Restriction digestions and ligations
- Pipetting DNA ladders during gel electrophoresis

Features:

- Ultrahomogeneous surface for maximum reproducibility
- Ultrahydrophobic surface for minimum loss of sample
- Air bubbles and foaming are signifcantly reduced during pipetting
- Autoclavable, high chemical resistance 5 year shelf life

Simple differentiation of racks and reloads through a new, clear lid with a white seal. When open, the text **LoRetention** can be seen from the inside. The reusable seal makes it also possible to label existing ep T.I.P.S. boxes.





Pipette tips epT.I.P.S. LoRetention Dual Filter, racks

PCR clean, sterile, pyrogene free. 10 x 96 tips.

Eppendorf

Capacity	Length	Package contents	PK	Cat. No.
μΙ	mm	contents		
0.1 - 10	34	10 racks of 96	960	9.409 425
0.5 - 20	46	10 racks of 96	960	9.409 426
2 - 100	55	10 racks of 96	960	9.409 427
20 - 300	55	10 racks of 96	960	9.409 428
50 - 1000	76	10 racks of 96	960	9.409 429

Pipette tips epT.I.P.S. LoRetention, Reloads

10 x 96 tips.

Eppendorf

Туре	Length /	Package	PK	Cat. No.
		contents		
	mm			
0.1 - 10	34	10 trays of 96	960	9.409 495
0.5 - 20	46	10 trays of 96	960	9.409 496
2 - 200	59	10 trays of 96	960	9.409 497
50 - 1000	76	10 trays of 96	960	9.409 498

Pipette tips epT.I.P.S. LoRetention, Reloads PCR clean

PCR clean, sterile, pyrogen-free. 10 x 96 tips.

Eppendorf

Capacity	Length	Package contents	PK	Cat. No.
μΙ	mm			
0.1 - 10	34	10 trays of 96	960	9.409 490
0.5 - 20	46	10 trays of 96	960	9.409 491
2 - 200	59	10 trays of 96	960	9.409 492
50 - 1000	76	10 trays of 96	960	9.409 493

Heathrow Scientific

BRAND

8. Liquid Handling **Pipettes/Pipette tips**





LIG

LLG-Disposable Reagent reservoirs, with clearly visible volume markings

LLG-Reagent reservoirs offer a convenient solution for the temporary storage of non-solvent based liquids during any pipetting application. The system consists of disposable, crystal clear polystyrene inserts that fit into reusable bases with clearly visible volume markings. The pour-back spouts in the corners of the reservoir allow pouring back the liquid into the original container without spills. The reagent reservoirs are available in 25 or 100 ml in size and are stackable for space saving storage.

Features and benefits:

- Light is refracted so that graduations below the liquid surface become invisible, making it easier to identify the exact desired volume line.
- Pour-back spouts moulded into the corners of each reagent reservoir control liquid flow and enable the easy, spill-free return of reagent to its original container.

Delivery: 4 packs of 50 pcs., sterile wrapped, 1 base per case.

Capac ml	city Description	(1	Y	PK	Cat. No.
25	LLG Reagent Reservoirs incl. 1 base		77		200	9.409 731
100	LLG Reagent Reservoirs incl. 1 base				200	9.409 732



Reagent Reservoirs

With 25ml interval graduations and indents to prevent stacked reservoirs from sticking together. For multichannel pipettors. The bottom of each reservoir tapers down into a narrow trough, to help you get the last drop of liquid.

Capacity Description Cat. No. ml 55 PVC, clear, non-sterile 100 6.236 945 55 PS, white, non-sterile 100 9.409 663 55 PS, white, sterile 9.409 666 100 PS, white, non-sterile 100 9.409 664 100 PS, white, sterile 9.409 667





Reagent reservoirs

Polypropylene solution basin/reagent reservoir has a standard 50mL basin on one side Heathrow Scientific and 12 individual 5mL basins on the other side. Wells are angled both downward and outward, guiding multichannel pipettor tips toward a centered position, which helps to avoid contamination and waste. Imprinted indices identify samples; loose-fitting lids prevent evaporation and contamination. Non-sterile.

Туре	PK	Cat. No.
Dual Solution	25	9.409 665



Multichannel pipette reservoir

PP. Translucent. Maximum filling volume 60ml. Suitable for multichannel pipettes with 8 or 12 channels. Autoclavable (121°C).

Description PK Cat. No. non-sterile, with lid 9.280 131 10 sterile, without lid (single packed) 9.280 132 100 9.280 133

sterile, without lid (in bags with 5 pieces) 200 E & OE. 912

8. Liquid Handling Pipettes/Pipette tips

Pipette reservoirs, PP

These reagent reservoirs were designed especially for use with automated liquid handling platforms. They can also be used with manual systems. Different partitions, bottom styles and profiles provide broas application flexibility.

- ANSI/SLAS standard format Compatible with nearly all liquid handling robots and other automated dispensing systems
- 5 different types for use with multichannel pipettes and automatic systems
- Excellent stability and chemical resistance made from high-quality polypropylene
- Free from RNases and DNases
- Autoclavable (121°C, 20 min)



Description	Working volume column each	Bottom shape	PK	Cat. No.
	ml			
1-column	220	pyramid, 96-well	10	6.266 275
12-column, low profile	6	pyramid	10	6.266 276
4-column	60	pyramid	10	6.266 277
6-column	40	pyramid	10	6.266 278
1-column, low profile	50	flat	10	6.266 279

2 Multichannel Pipetting Reservoir

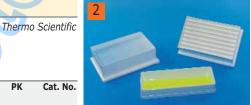
Three different, autoclavable reservoirs are available:

- 60ml reservoir with a V-shape for optimal utilisation

- 125ml reservoir with a sloping bottom

- 8-channel reservoir with 8 x 10ml volume, floor sloping to one side

Volume ml	_	(1	7		PK	Cat. No.
1 x 60		M	U	7.	5	6.077 002
8 x 10					10	6.222 853
1 x 125					10	6.238 478



3 Storage system "MultiStore"

White, made of highly impact resistant plastic. Tilt bins made of crystal clear PS.

- for small components and accessories e.g. in industries, hospitals and laboratories
- dust-free and clean storage of contents
- multifunctional for individual storage solutions

Description	External dimensions (W x D x H)	Dimensions* (W x D x H)	PK Cat. No.
	mm	mm	
4 tilt bins	601 x 171,5 x 206	125,5 x 128 x 133,5	1 9.301 553
3 tilt bins	601 x 198 x 238	176 x 149 x 161	1 9.301 554
2 tilt bins	601 x 310,5 x 353	265 x 221 x 241	1 9.301 555
*Dimensions of each	n single tilt bin		





8. Liquid Handling

Dispensing/Hand dispensers





LLG- uniDISPENS manual Serial Dispenser



The ergonomically designed manual dispenser LLG-uniDISPENS enables single handed volume selection, loading and dispensing. Due to its light weight it is ideally suited for serial dosing. You can flexibly select your desired dosing volume from 120 dosing programs for 12 tip sizes and with 10 stroke adjustments. You can view all settings and volumes at a single glance through the viewing window of the manual dispenser. The dispenser is compatible with Ritips®, PD-Tips® from Brand, Combitips ® and Combitips advanced® from Eppendorf™. The manual dispenser is made from high-quality materials and has a high resistance towards a broad range of chemicals. Thanks to a purely mechanical, maintenance-free construction, the manual dispenser is a practical and convenient device for daily

3 years warranty.

Description	6		PK	Cat. No.
LLG-uni <i>DISPENS</i>			1	9.284 238



Manual step dispenser, ripette®



Ritter ripette® is a very comfortable device for hand dispensing of long series. A special technical mechanism guarantees the precision of all selected dosage volumes: 1 to 5000µl.

Ritter GmbH

Product advantages:

- Chart with dosage setting volumes incorporated into each dispenser.
- Lightweight (approx. 100g)
- Easy-to-use adjustment dial for the selection of dosage volume and the number of steps
- No mechanical parts that wear out, no maintenance

Dispenser tips ritips® 25ml and 50ml cannot be used without adapter (Adapter included in delivery).

Description	PK	Cat. No.
ripette® with 25/50ml adapter	1	9.284 190
Spare adapter for 25ml	1	6.266 071
Spare adapter for 50ml	1	6.266 072



9.284 225

Dispenser tips, ritips®



- Three sizes, standard and bioclean® (sterile).
- Maximum of safety and repeatability as all tips are individually and mechanically tested.
- Guaranteed purity under the logo bioclean® is tested and confirmed by independent testing laboratories.
- Ritter bioclean® stands for sterile, pyrogen free, DNA-, RNase- and ATP-free.
- CE-marking according to IVD-directive 98/79 EG on each box.
- A quality certificate per lot can be obtained upon request.

Suitable for use together with Ritter ripette®, Multipette® 4780, HandyStep®, Minilab 100/101, Stepmate, EasyStep, Distriman® and HandyStep® electronic.

Please note: Dispenser tips ritips® 25ml and 50ml cannot be used without adapter. If necessary, please order Cat.-No. 6.266 071 or 6.266 072 separately.

Туре	PK	Cat. No.
0.05ml / standard	100	6.265 688 3
1.25ml / standard	100	6.265 689 4
12.5ml / standard	100	9.284 225 5
0.05ml / sterile	25	6.265 690
1.25ml / sterile	100	6.265 691
12.5ml / sterile	100	6.265 692
Adapter for 25ml	1	6.266 071
Adapter for 50ml	1	6.266 072

914 www.wenk-labtec.com

Manual repetitive pipette HandyStep® S

HandyStep® S - the repetitive pipette for any occasion!

BRAND

Ideal for routine or research applications in diagnostics, molecular biology, environmental analysis, and many more. HandyStep® S and PD-tips work on the direct displacement principle. This offers the highest-precision dispensing of liquid media with high viscosity, high density, or high vapor pressure. Direct displacement permits contamination-free operation, since no aerosols are formed.

More data and facts:

- increased chemical resistance through innovative plastic materials
- easy tip mounting PD-tip is now simply inserted from below
- dispensed volume range from 2 µl to 5ml
- up to 49 dispensing steps
- weighs only 108g
- suitable for use with BRAND PD-tips, Encode™ tips, Repet tips, Combitips®, Combitips® plus and other compatible dispenser tips
- CE- IVD -compliant

Items supplied

HandyStep® S, DE-M marking, with serial number, performance cerficate, operating manual, shelf/rack mount, 3 PD-Tips: 0.1ml, 1ml and 10ml.

Туре	PK Cat. No.
HandyStep® S incl. rack holder	1 9.280 944
Rack holder for HandyStep® S	1 9.280 945

partner of the Lab Logistics Group

we can supply this manufacturer's whole product range!



8. Liquid Handling Dispensing/Hand dispensers

Repetitive pipette HandyStep® electronic



Microprocessor-controlled manual repetitive pipette for fatigue-free use, serial dispensing in a wide range of applications. Ergonomic shape permits comfortable use and provides uniform precision, independent of user influence.

- automatic size recognition of new Brand PD tips with piston coding
- can be used with most other commercial dispenser tips
- variable volume setting between 1µl and 50ml
- LCD readout of volume, number of dispensing steps and aspirating/dispensing speed
- functions: dispensing, auto dispensing, pipetting with continuously variable volume
- innovative recharging dock concept reduces downtimes
- user-friendly, intuitive menu system
- auto dispensing with learning feature (average speed of first three dispensings memorized, then used for subsequent procedures during session)
- CE marked according to IVD 98/79 EG.
- NiMH battery pack can be recharged when fitted or separately.

Supplied with: HandyStep® electronic, DE-M marking, performance certificate, with NiMH battery pack and charger. 1 PD-Tip sizes 0.5 ml, 1.25 ml, 2.5 ml, 5 ml and 12.5 ml each.

Туре			PK Cat.	No.
HandyStep® electronic, incl. NiMH battery pack, charging dock and 230V 50Hz power adapter with continental European plug*	7/		1 9.284	040
Manual repetitive pipette HandyStep® electronic, Package, with AC charger UK			1 4.000	165

^{*}Other adapters (UK/Ireland, USA/Japan or Australia) are available on request.

Pipettors, positive displacement, stepper type, HandyStep® electronic, from BRAND

PD-Tip	Capacity	Subdivision	Accuracy (≤ ± R%)			Precision (≤	CV%)		
			Nom. capa		10%	1%	Nom. capacit	y 50%	10%	1%
0.1 ml	1 µl - 100 µl	1 µl - 100 µl 0.1 µl	1	1	1.6	8	0.5	1	2	12
0.5 ml	5 μΙ - 500 μΙ	5 μl - 100 μl	0.9	0.9	1	5	0.3	0.6	1	5
1 ml	10 μl - 1 ml	10 µl - 1 ml 1 µl	0.6	0.9	1	5	0.3	0.5	0.8	4
1.25 ml	12.5 μl - 1.25 ml	12.5 µl - 100 µl 0.5 µl 100 µl - 1000 µl 1 µl 1 ml - 1.25 ml 10 µl	0.6	0.6	0.9	5	0.2	0.5	0.7	4
2.5 ml	25 μl - 2.5 ml	25 μl - 1000 μl 1 μl 1 ml - 2.5 ml 10 μl	0.5	0.6	0.7	3.5	0.15	0.3	0.6	3
5 ml	50 μl - 5 ml	50 μl - 1000 μl 1 μl 1 ml - 5 ml 10 μl	0.5	0.5	0.7	3.5	0.15	0.4	0.7	3
10 ml	100 µl - 10 ml	100 µl - 10 ml 10 µl	0.4	0.5	0.7	3.5	0.15	0.5	0.8	4
12.5 ml	125 µl - 12.5 ml	125 µl - 1000 µl 5 µl 1 ml - 10 ml 10 µl 10 ml - 12.5 ml 100 µl	0.5	0.5	0.8	3.5	0.15	0.6	1.4	6.5
25 ml	250 μl - 25 ml	250 µl - 10 ml 10 µl 10 ml - 25 ml 100 µl	0.5	0.5	0.6	3	0.15	0.3	1.0	6
50 ml	500 μl - 50 ml	500 μl - 10 ml 10 μl 10 ml - 50 ml 100 μl	0.5	0.5	0.5	3	0.15	0.4	1.2	9

Tolerances according to ISO 8655.



Accessories for pipettors, positive displacement, stepper type, HandyStep® electronic

BRAND

Туре	PK	Cat. No.
European plug, 230 V 50 Hz power supply only*	1	9.284 041
Charging dock only, without power supply	1	9.284 042
NiMH battery pack, spare	1	9.284 043
the extra contract of the cont		

* Other power supplies on request.



3 Adapters

Adapters for 25ml and 50ml PD tips.		BRAND
Туре	PK	Cat. No.
Adapter, non-sterile	10	9.280 942
Adapter, sterile*	5	9.280 943

916 E & OE.

* Individually packed.

Precision Dispenser Tips for Stepper Pipettors

The BRAND PD-Tips from BRAND with patented size encoding are the ideal system component for the HandyStep® electronic (with automatic tip size recognition), HandyStep® S and HandyStep® from Brand.

They can be used also with compatible, third-party dispensing systems. The automatic size detection option is available with HandyStep® electronic, Gilson® Repetman®, and Rainin AutoRep™ E. In addition, PD-Tips can be used with HandyStep®, HandyStep® S, Rainin AutoRep™ M, Eppendorf® Multipette® 4780 and EDOS® 5221 among others. PD-Tips are DE-M marked, comply with ISO 8655 requirements and come with a batch certificate.

CE-marked according to IVD-Directive 98/79 EC. PD-Tips are available in 10 different sizes from 0.1ml to 50ml. They are available non-sterile, sterile/endotoxin-free (individually wrapped), as well as in Bio-Cert® quality (available on request). Bio-Cert® products are free from DNA, RNase and ATP. Quality control is conducted at an independent, accredited test laboratory. A batch-related certificate will be provided. For 25 and 50ml tips, an adapter is required and is included.



Capacity ml	Туре	PK	Cat. No.
0.10	non-sterile	100	9.280 923
0.50	non-sterile	100	9,280 928
1.00	non-sterile	100	4.007 854
1.25	non-sterile	100	9.280 930
2.50	non-sterile	100	9.280 932
5.00	non-sterile	100	9.280 934
10.00	non-sterile	100	4.007 855
12.50	non-sterile	100	9.280 936
25.00	non-sterile	50	9.280 938
50.00	non-sterile	25	9.280 940
0.10	sterile, endotoxin free	100	9.280 924
0.50	sterile, endotoxin free	100	9.280 929
1.00	sterile, endotoxin free	100	4.007 856
1.25	sterile, endotoxin free	100	9.280 931
2.50	sterile, endotoxin free	100	9.280 933
5.00	sterile, endotoxin free	100	9.280 935
10.00	sterile, endotoxin free	100	4.007 857
12.50	sterile, endotoxin free	100	9.280 937
25.00	sterile, endotoxin free	25	9.280 939
50.00	sterile, endotoxin free	25	9.280 941
0.10	sterile, Bio-Cert®	100	6.229 625
0.50	sterile, Bio-Cert®	100	7.615 367
1.00	sterile, Bio-Cert®	100	4.007 858
1.25	sterile, Bio-Cert®	100	6.207 277
2.50	sterile, Bio-Cert®	100	9.409 653
5.00	sterile, Bio-Cert®	100	6.206 732
10.00	sterile, Bio-Cert®	100	4.007 859
12.50	sterile, Bio-Cert®	100	6.206 733
25.00	sterile, Bio-Cert®	25	9.409 656
50.00	sterile, Bio-Cert®	25	6.224 557

Pipettors, positive displacement, variable, repeating, Stepper™ 411

Highly comfortable pipette, intended for reliable repeat dispensing from 10 to 5000µl. Unique trigger action mechanism eliminates thumb fatigue. Selected materials ensure reliability in use, day after day. Compact shape greatly limits internal instrument contamination. Wide selection between 53 different volumes; up to 73 doses per filling. Two-year warranty.

Product advantages

- 4-finger activation
- setting knobs bear clear indication of volumes and number of aliquots
- three positive displacement syringes, colour coded
- self-locking mechanism
- clear setting indication





Description	PK	Cat. No.
Stepper™ 411 supplied with colour-coded adjustment knobs, adapter, samples of Ecostep syringes	1	9.411 561
Spare PVC workstation	1	9.411 567
Spare adapters for 37.5ml (red) Ecostep syringe tips	5	9.411 568

8. Liquid Handling

Dispensing/Hand dispensers





Syringe tips, Ecostep

Individually wrapped sterile, or loose-packed non-sterile.

Socorex

Bioproof: Sterilized syringes are DNase-, RNase- and pyrogen-free certified.

Capacity µl	Capacity	Туре	<<	PK	Cat. No.
10 - 100	0.75	Non-sterile		100	9.411 509
10 - 100	0.75	Bioproof, sterile, single packed		100	9.411 510
50 - 500	3.75	Non-sterile		100	9.411 511
50 - 500	3.75	Bioproof, sterile, single packed		100	9.411 512
500 - 5000	3.75	Non-sterile		100	9.411 513
500 - 5000	3.75	Bioproof, sterile, single packed		100	9.411 514





Dispensers Multipette® M4

Eppendorf

Eppendorf

On the Multipette®/Combitip system, volumes are dispensed using the positive displacement principle. The liquid is directly dispensed without an air cushion, ensuring the correct volume is always dispensed regardless of the density and viscosity of the liquid.

In addition to serial dispensing, the Multipette is also the perfect instrument that is able to go beyond the limitations of a standard pipette.

Features Multipette®

- Light and ergonomic
- Stress-free work via integrated step counter: dispensing procedures can be continued error-free after an interruption or distraction
- Central Combitip ejector: fully emptied Combitip can be easily ejected with one hand using the operating lever
- Step counter: Displays the number of executed dispensing steps
- Only suitable with Eppendorf Combitips advanced
- Combitip sensor: Automatic Combitip recognition and volume display

Applications

- Repetitive Dispensing of volumes in long series such as plate filling or when aliquoting
- Contamination-free dispensing of toxic, radioactive and or other hazardous liquids
- Precise and accurate dispensing of viscous solutions (e.g. glycerol) or liquids with high vapor pressure (e.g. ethanol)

Туре	PK	Cat. No.
Multipette® M4 incl. holder	1	9.283 604
Multipette® M4 Starter Kit, incl. Combitip Rack and Combitip Assor	tmentpack 1µl - 10ml 1	9.283 681



Dispensers Multipette® Stream and Multipette® Xstream

Applications

dispensing volumes in long series

electronic dispensing with memory functions

- contamination-free dispensing using positive displacement principle
- ideal for viscous solutions (e.g. glycerol, oil) or liquids with high vapour pressure (e.g. acetone, ethanol) **Product features, Multipette® Stream**

- dispensing and pipetting according to positive displacement principle
- automatic dispensing
- rapid, ergonomic dispensing with motorized piston
- one-button tip ejector
- Li-Ion battery
- selection wheel
- automatic Combitip® plus tip recognition
- volume range from 1µl to 50ml
- charging possible whilst in use

Туре	PK	Cat. No.
Multipette® stream incl. charger	1	9.283 615
Multipette® Xstream incl. charger	1	9.283 616
Charge stand for Multipette®/Repeater Stream/Xstream	1	9.283 618

8. Liquid Handling

Dispensing/Hand dispensers

Pipette tips, Eppendorf Combitips advanced®

The Eppendorf Combitips have been completely redesigned and optimised so that they are capable of **Eppendorf** meeting the increased requirements of a modern laboratory to a greater extent than ever before. The result is the Combitips advanced®. As they offer a wide variety of advantages in comparison with the Combitips plus, we talk about the 360° Evolution. The Combitips advanced replace the Combitips plus. The Combitips advanced also function according to the positive displacement principle. Thus they always dispense the correct desired volume independently of the density of the liquid and its flow characteristics (e.g. increased vapour pressure or increased viscosity). Working with radioactive, aggressive or toxic materials also becomes safer due to the hermetically sealed piston preventing aerosol contamination. After dispensing with the Multipette, just eject the Combitips advanced and dispose of.

Whether Multipette 4780, Multipette plus, Multipette stream or Xstream - the Combitips advanced are optimized for all Multipette models to create the perfect connection!



Туре	Capacity	Colour code	PK	Cat. No.
- 100 In In	ml	1.55	100	2 222 425
Combiting advanced®	0.1	white	100	
Combitips advanced®	0.2	light blue	100	
Combitips advanced®	0.5	purple	100	
Combitips advanced®	1.0	yellow	100	
Combitips advanced®	2.5	green	100	
Combitips advanced®	5.0	blue	100	
Combitips advanced®	10.0	orange	100	
Combitips advanced®	25.0	red	100	
Combitips advanced®	50.0	light grey	100	
Combitips advanced®, PCR clean	0.1	white	100	
Combitips advanced®, PCR clean	0.2	light blue	100	
Combitips advanced®, PCR clean	0.5	purple	100	
Combitips advanced®, PCR clean	1.0	yellow	100	
Combitips advanced®, PCR clean	2.5	green	100	
Combitips advanced®, PCR clean	5.0	blue	100	
Combitips advanced®, PCR clean	10.0	orange	100	
Combitips advanced®, PCR clean	25.0	red	100	
Combitips advanced®, PCR clean	50.0	light grey	100	
Combitips advanced® Biopur®	0.1	white	100	9.283 153
Combitips advanced® Biopur®	0.2	light blue	100	9.283 154
Combitips advanced® Biopur®	0.5	purple	100	9.283 155
Combitips advanced® Biopur®	1.0	yellow	100	9.283 156
Combitips advanced® Biopur®	2.5	green	100	9.283 157
Combitips advanced® Biopur®	5.0	blue	100	9.283 158
Combitips advanced® Biopur®	10.0	orange	100	9.283 159
Combitips advanced® Biopur®	25.0	red	100	9.283 160
Combitips advanced® Biopur®	50.0	light grey	100	9.283 161
Combitips advanced® Assortment pack				9.283 167
(1pc. of each size plus each 1pc. 25ml and 50ml adapter)				

Accessories for Pipette tips, Eppendorf Combitips advanced®

		A(V2)		Eppendorf
Туре	Capacity	Colour code	PK	Cat. No.
	ml			
advanced® Adapter	25.0	red	1	9.283 162
advanced® Adapter	50.0	light grey	1	9.283 163
advanced® Adapter biopur®	25.0	red	7	9.283 164
advanced® Adapter biopur®	50.0	light grey	7	9.283 165
advanced® Rack for 8 Combitips			1	9.283 166



Pipette tips, Biopur® Combitips®

For RNase-, DNA-, ATP- and pyrogen-free work.

- continuous quality control by independent laboratory

- can be supplied with a batch-related quality certificate upon request

The Eppendorf Biopur seal stands for the highest biological purity. Eppendorf Biopur disposable products are guaranteed sterile, pyrogen-free, RNase-free, DNA-free and ATP-free. They therefore meet the highest requirements in the medical, pharmaceutical and food industries, in PCR technology, molecular biology and cell technology. This new dimension of purity is made possible because of a production process that is comprehensively automated through all of the manufacturing stages up to the end product and that excludes contamination with biological substances. Biopur Combitips, individually blister packed in outer cases of 100.

Type	Minimum	Maximum	PK	Cat. No.
	Interval (µl)	Interval (µl)		
1.25ml	25	125	100	9.283 502
12.5ml	250	1250	100	9.283 505





Socorex



1 Self-filling syringes Dosys™

- Optimal hand balance and ergonomics
- Fast and reliable volume setting
- Excellent reproducibility
- Plunger tightness without O-ring
- High chemical resistance
- Fully autoclavable at 121°C/250°F
- Self-refilling automatic

Dosys™ basic 162/172

- Fill-by-fill (automatic) through needle or cannula
- Supplied without valve system
- Luer Lock nozzle

Package includes syringe, PVC protection sleeve and operating instructions.

Dosys™ classic 163/173

- Integrated valve system
- Luer Lock nozzle

Package includes syringe, one meter silicone feed tube, sinker, PVC protection sleeve, aspiration and vent cannulas, set of spare for valve, operating instructions.

Dosys™ premium 164/174

- Detachable valve system
- Enhanced corrosion resistance
- Luer Lock nozzle

Package includes syringe, one meter silicone feed tube, sinker, PVC protection sleeve, aspiration, vent and dosing cannulas, set of spare for valve, operating instructions.

Further Self-filling syringes available on request.

Туре	Volume	Valve	With	PK	Cat. No.
	ml				
Dosys™ basic 162	0.5 to 5	without	2-ring handle	1	6.229 740
Dosys™ classic 163	0.3 to 2	integrated	2-ring handle	1	6.206 201
Dosys™ premium 164	0,3 to 2	detachable	2-ring handle	1	6.204 472
Dosys™ premium 164	1 to 10	detachable	2-ring handle	1	6.224 207
Dosys™ basic 172	0.1 to 1	without	pistol grip	1	9.411 524
Dosys™ basic 172	0.3 to 2	without	pistol grip	1	9.411 525
Dosys™ basic 172	0.5 to 5	without	pistol grip	1	9.411 526
Dosys™ basic 172	1 to 10	without	pistol grip	1	9.411 527
Dosys™ classic 173	0.1 to 1	integrated	pistol grip	1	6.205 165
Dosys™ classic 173	0.5 to 5	integrated	pistol grip	1	6.231 686
Dosys™ classic 173	1 to 10	integrated	pistol grip	1	6.230 535
Dosys™ classic 173	5 to 20	integrated	pistol grip	1	7.630 775
Dosys™ premium 174	0.1 to 1	detachable	pistol grip	1	9.411 520
Dosys [™] premium 174	0.3 to 2	detachable	pistol grip	1	9.411 521
Dosys™ premium 174	0.5 to 5	detachable	pistol grip	1	9.411 522
Dosys™ premium 174	1 to 10	detachable	pistol grip	1	9.411 523

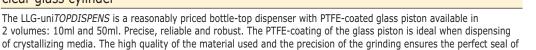
manufacturer's whole product range!





LLG-Bottletop dispenser uni*TOPDISPENS* with glass piston and clear glass cylinder

(NEW!)



- Precise and reliable volume setting
- Visible dosing procedure
- Valve block made of PP gives optimised protection of the glass made dosing cylinder
- Precise grinding of the glass piston into the glass cylinder forms a perfect seal
- Ergonomic finger guard
- Delivered with 2 PP-adapters GL 40 and 45

the complete dispensing system. 3 years warranty.

- With glass piston and clear glass cylinder

Description	Volume	Graduations	Accuracy max. vol.	Precision max. vol.	PK Cat. No.
	ml	ml	(≤ ± R%)	(≤ CV%)	
LLG-uniTOPDISPENS	2 - 10	0.5	0.6	0.2	1 9.283 806 1
LLG-uniTOPDISPENS	10 - 50	1.0	0.6	0.2	1 9.283 808



9.283 806

2 LLG-Bottletop dispenser

- Definitely the best choice to provide high precision with consistent delivery. Reliable measuring results with bubble-free dispensing.
- Individually calibrated in accordance with ISO 8655 standards and each unit is supplied with an individual calibration certificate.
- Highest degree of chemical resistance is provided due to the use of high quality materials in contact with dispensed liquids.
- Springless PTFE valve manifold ensures excellent chemical compatibility and leak proof valve functioning reapoducibility.
- Specially designed PTFE piston with silicone O-ring ensures smooth, effortless piston movement.
- Dosing cylinder is protected against breaking by a polypropylene sleeve which prevents any glass splitting in case of any accidental breaking.
- The telescopic extractable intake tube can be adjusted easily and smoothly to the varying heights of the bottles.
- Nozzle cap reduces contact with air and prevents drying. No drips when the tip cover is attached.
- Each dispenser comes with five adaptors (28mm, 32mm, 37mm, 40mm and 45mm) to fit in most of the laboratory reagent bottles. Standard thread: 30mm.

Quick volume settings with the practical sets screw. After loosening the locking screw, desired volume can be set, then locking screw is fixed.

Volume	Grad.	Accuracy max. vol.	Precision max. vol.	PK	Cat. No.
ml	ml	(≤ ± R%)	(≤ CV%)		
0.3 - 2.5	0.05	0.6	0.2	1	9.284 180
0.5 - 5	0.10	0.5	0.1	1	9.284 181
1.0 - 10	0.20	0.5	0.1	1	9.284 182
2.5 - 30	0.50	0.5	0.1	1	9.284 183
5.0 - 60	1.00	0.5	0.1	1	9.284 184
10.0 - 100	2.00	0.5	0.1	1	9.284 185





VITLAB

VITLAB

Dispensing/Bottletop dispensers



1 Dispensers, VITLAB® simplex

- quick, easy and precise volume adjustment
- no drips after tube has been capped
- high-quality materials (PTFE, PFA, FEP, borosilicate glass, platinum-iridium) ensure high chemical resistance aganinst most acids, solvents and bases
- a positive displacement plunger with a PFA seal minimizes the crystallization of liquids and thus the clogging of the plunger
- easy to dismantle for cleaning, no tools necessary
- completely autoclavable at 121°C
- device can be rotated 360° on bottle
- certificate of conformity according to DIN 12600
- margin of error according to DIN EN ISO 8655-5
- items supplied: 3 polypropylene adapters (see chart), 1 telescopic inlet tube (200 to 350mm), 1 mounting tool, operation manual, quality certificate stating all test values
- with variable volume

Volume	Graduations	Accuracy max. vol.	Precision max. vol.	Neck thread	Adapter	PK	Cat. No.
ml	ml	(≤ ± R%)	(≤ CV%)	GL			
0.25 - 2.5	0.05	0.6	0.1	32	GL 28, 45, S 40	1	9.284 030
0.5 - 5.0	0.10	0.5	0.1	32	GL 28, 45, S 40	1	9.284 031
1.0 - 10.0	0.20	0.5	0.1	32	GL 28, 45, S 40	1	9.284 032
2.5 - 25.0	0.50	0.5	0.1	45	GL 32, 38, S 40	1	9.284 033
5.0 - 50.0	1.00	0.5	0.1	45	GL 32, 38, S 40	1	9.284 034
10.0 - 100.0	2.00	0.5	0.1	45	GL 32, 38, S 40	1	9.284 035

S 40 = saw tooth thread



2 Dispensers, VITLAB® genius

- quick, easy and precise volume adjustment
- patented recirculation valve avoids reagent waste
- no drips after tube has been capped
- easy calibration adjustment
- High-quality materials (PTFE, PFA, FEP, borosilicate glass, platinum-iridium) ensure good chemical resistance to most acids, solvents and bases
- a positive displacement plunger with PFA seal minimizes the crystallization of liquids and therefore the possibility of the plunger jamming
- easy to dismantle for cleaning, no tools necessary
- completely autoclavable at 121°C
- can be rotated 360° on bottle
- certificate of conformity according to DIN 12600
- margin of error according to DIN EN ISO 8655-5
- items supplied: 3 polypropylene adapters (see chart), 1 telescopic inlet tube (200 to 350mm), 1 mounting tool, operation manual, quality certificate stating all test values
- with recirculation valve and media-specific recalibration

Volume	Grad.	Accuracy max. vol.	Precision max. vol.	Neck thread	Adapter	PK	Cat. No.
ml	mi	(≤ ± R%)	(≤ CV%)	GL			
0.25 - 2.5	0.05	0.6	0.1	32	GL 28, 45, S 40	1	9.284 022
0.5 - 5	0.1	0.5	0.1	32	GL 28, 45, S 40	1	9.284 023
1 - 10	0.2	0.5	0.1	32	GL 28, 45, S 40	1	9.284 024
2.5 - 25	0.5	0.5	0.1	45	GL 32, 38, S 40	1	9.284 025
5 - 50	1.0	0.5	0.1	45	GL 32, 38, S 40	1	9.284 026
10 - 100	2.0	0.5	0.1	45	GL 32, 38, S 40	1	9.284 027
S 40 = saw toot	h thread						

manufacturer's whole product range!



partner of the



8. Liquid Handling Dispensing/Bottletop dispensers

1 Dispensers, bottle-top, POLYFIX®

For dispensing of all chemicals, where polypropylene is resistant. With vacuum calibrated, glass dispensing barrel. Valve block not detachable for safety reasons.

- conformity-certified
- ergonomically designed plunger handle for comfortable operation
- user-friendly, volume setting with easy movement and rotatable fine adjustment
- PP valve block (GL32) with FIX adapter which aligns the dispenser on the bottle. Not suitable for solvents.

Supplied with 2 x PP bottle adapters (GL40 and GL45).



Description	Volume	Graduations	Accuracy max. vol.	Precision max. vol.	(60	PK	Cat. No.
	ml	ml	(≤ ± R%)	(≤ CV%)			
with glass piston and clear glass cylinder*	2 - 10	0.5	0.6	0.2		1	9.283 800
with glass piston and clear glass cylinder*	10 - 50	1.0	0.6	0.2		1	9.283 810
with PTFE-coated piston and clear glass cylinder**	2 - 10	0.5	0.6	0.2		1	9.283 801
with PTFE-coated piston and clear glass cylinder**	10 - 50	1.0	0.6	0.2		1	9.283 802
with glass piston and amber dosing cylinder***	2 - 10	0.5	0.6	0.2		1	9.283 803
with glass piston and amber dosing cylinder***	10 - 50	1.0	0.6	0.2		1	9.283 804

^{*} For dosing of aqueous media

Dispensers, bottle-top, FORTUNA® OPTIFIX® BASIC

For problem-free dispensing of aqueous media and acids as well as solutions subject to
Poulten & Graf crystallization. With solid, PTFE-sleeved dispensing piston, highly polished, 100% corrosion-free, vacuum calibrated, plastic-coated, precision glass cylinder (visible dispensing process). Stopper ring made of fibre-glass reinforced, PTFE. Black-graduated, dispensing cylinder. PTFE valve block (no metal springs to contaminate the dispensed liquid). With colour-coded handle inscriptions. Sizes 2ml to 100ml autoclavable (Please read the autoclaving instructions carefully before proceeding). Sizes 200ml to 500ml in autoclavable version only available on request.

Items supplied: Dispenser without reservoir bottle, PTFE suction and discharge tubes and two PP bottle adapters (GL40 and GL45). Conformity-certified, with precision certificate.



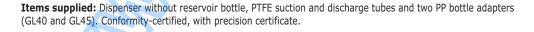
Type	Volume	Graduations	Accuracy	Precision	PK	Cat. No.
			max. vol.	max. vol.		
	ml	ml	(≤ ± R%)	(≤ CV%)		
Basic-27	0.4 - 2	0.1	0.6	0.2	1	9.287 902
Basic-33	1 - 5	0.1	0.6	0.2	1	9.287 903
Basic-38	2 - 10	0.2	0.6	0.2	1	9.287 904
Basic-44	6 - 30	0.5	0.6	0.2	1	9.287 905
Basic-48	10 - 50	1.0	0.6	0.2	1	9.287 906
Basic-51	20 - 100	2.0	0.6	0.2	1	9.287 907
Basic-53	40 - 200	5.0	0.6	0.2	1	9.287 908
Basic-56*	60 - 300	5.0	0.6	0.2	1	9.287 909
Basic-58*	100 - 500	5.0	0.6	0.2	1	9.287 951
*not included in	1CO 06FF/F					

^{*}not included in ISO 8655/5

3 Dispensers, bottle-top, FORTUNA® OPTIFIX® SOLVENT

For organic solvents and liquid compounds that may swell PTFE. With vacuum calibrated, glass dispensing barrel and precision glass piston. Barrel graduated in black.

Visible dispensing. PTFE valve block (GL32). With colour-coded plunger handles. Sizes 2ml to 100ml autoclavable (Please read the autoclaving instructions carefully before proceeding). Sizes 200ml to 500ml in autoclavable version only available on request.





Poulten & Graf

Туре	Volume	Graduations	Accuracy	Precision	F	PK	Cat. No.
			max. vol.	max. vol.			
	ml	ml	(≤ ± R%)	(≤ CV%)			
SOLVENT-27	0.4 - 2	0.1	0.6	0.2		1	9.287 953
SOLVENT-33	1 - 5	0.2	0.6	0.2		1	9.287 954
SOLVENT-38	2 - 10	0.5	0.6	0.2		1	9.287 955
SOLVENT-44	6 - 30	1.0	0.6	0.2		1	9.287 956
SOLVENT-48	10 - 50	1.0	0.6	0.2		1	9.287 957
SOLVENT-51	20 - 100	2.0	0.6	0.2		1	9.287 958
SOLVENT-53	40 - 200	5.0	0.6	0.2		1	9.287 959
SOLVENT-56*	60 - 300	5.0	0.6	0.2		1	9.287 960
SOLVENT-58*	100 - 500	5.0	0.6	0.2		1	9.287 961

^{*} in addition to ISO 8655

^{**}For dosing of weak acids and bases

^{***}For dispensing light sensitive liquids

Poulten & Graf

8. Liquid Handling

Dispensing/Bottletop dispensers





Dispensers, bottle-top, FORTUNA® OPTIFIX® SAFETY

For strong acids (excl. HF) and aggressive chemicals. Visible dispensing process, dispensing piston made of PTFE-sleeved, solid glass, with additional sealing lip at the end of the piston to prevent acid fumes and odours from escaping. No metal springs in the valve block (no contamination of the dispensed liquid). With colour-coded handle inscriptions.

Items supplied: Dispenser without reservoir bottle, 1 discharge tube, incl. 2 PTFE-adapters (GL 40+45) 1 PTFE suction tube.

Туре	Volume	Grad.	Accuracy max. vol.	Precision max. vol.	P	K Cat. No.
	ml	ml	(≤ ± R%)	(≤ CV%)		
Safety-27	0.4 - 2	0.1	0.6	0.2		1 9.287 962
Safety-33	1 - 5	0.2	0.6	0.2		1 9.287 963
Safety-38	2 - 10	0.5	0.6	0.2		1 9.287 964
Safety-44	6 - 30	1.0	0.6	0.2		1 9.287 965
Safety-48	10 - 50	1.0	0.6	0.2		1 9.287 966
Safety-51	20 - 100	2.0	0.6	0.2		1 9.287 967





Dispensers, bottle-top, FORTUNA® OPTIFIX® SAFETY S

Bottle-top dispensers for dispensing strong fuming acids and very aggressive liquids, with safety stopcock and additional safety valve in the ventilation tube, with PTFE-encased dispensing piston with sealing lip, FIX adaptor made of solid PTFE comes with 2 x PTFE GL40/GL45 adapters and PTFE inlet tube.

Poulten & Graf

туре	volume	Grad.	Accuracy	Precision	PK	Cat. No.
			max. vol.	max. vol.		
	ml	ml	(≤ ± R%)	(≤ CV%)		
Safety S-27	0.4 - 2	0.1	0.6	0.2	1	6.206 600
Safety S-33	1 - 5	0.2	0.6	0.2	1	6.227 942
Safety S-38	2 - 10	0.5	0.6	0.2	1	9.287 995
Safety S-44	6 - 30	1.0	0.6	0.2	1	9.287 996
Safety S-48	10 - 50	1.0	0.6	0.2	1	9.287 997
Safety S-51	20 - 100	2.0	0.6	0.2	1	9.287 998





Dispensers, bottle-top, FORTUNA UNIVERSAL® OPTIFIX® HF

With solid PTFE dispensing barrel and glass-cored, PTFE coated plunger with seal (prevents acid vapours escaping from the storage bottle). With colour-coded plunger handles.

Items supplied: Hydrofluoric acid dispenser without reservoir bottle, with PTFE valve block (GL32), PTFE suction and discharge tubes and two PTFE bottle adapters (GL40 and GL45).

Type	Volume	Graduations	Accuracy	Precision	PK	Cat. No.
			max. vol.	max. vol.		
	ml	ml	(≤ ± R%)	(≤ CV%)		
HF-33	1 - 5	0.2	0.6	0.2	1	9.287 970
HF-38	2 - 10	0.5	0.6	0.2	1	9.287 968
HF-44	6 - 30	1.0	0.6	0.2	1	9.287 969
HF-48	10 - 50	1.0	0.6	0.2	1	6.241 198





Bottle-top dispensers Calibrex[™] organo 525/Calibrex[™] solutae 530



Poulten & Graf

Calibrex organo 525 models include a ground glass plunger, best suited for organics, non-crystallizing acid and base solutions. Calibrex solutae 530 dispensers have a PFA coated plunger preventing plunger and barrel from seizing together. This enables trouble free distribution of salt solutions, weak and strong acids, as well as bases.

- Integrated calibration system
- Choice of adjustment button with each unit
- Autoclavable at 121°C fully assembled
- Two-year warranty

Supplied with 45 mm base thread, 120 mm delivery jet and stopper, 350 mm feed tube, alternative screw-type volume setting button, three bottle neck adapters (32, 38 and 40 mm), QC certificate and operating instructions.

Туре	Volume	Graduations	Accuracy max. vol.	Precision max. vol.	Recycle valve	PK	Cat. No.
	ml	ml	(≤ ± R%)	(≤ CV%)			
Calibrex™ organo 525	2.5 - 25	0.5	0.6	0.1	without	1	9.411 562
Calibrex™ organo 525	5 - 50	1.0	0.6	0.1	without	1	9.411 563
Calibrex™ organo 525	10 - 100	1.0	0.6	0.1	without	1	9.411 564
Calibrex™ organo 525	2.5 - 25	0.5	0.6	0.1	with	1	6.261 218
Calibrex™ organo 525	5 - 50	1.0	0.6	0.1	with	1	6.261 219
Calibrex [™] organo 525	10 - 100	1.0	0.6	0.1	with	1	6.261 220
Calibrex [™] solutae 530	2.5 - 25	0.5	0.6	0.1	without	1	9.411 565
Calibrex [™] solutae 530	5 - 50	1.0	0.6	0.1	without	1	9.411 566
Calibrex™ solutae 530	10 - 100	1.0	0.6	0.1	without	1	6.258 446
Calibrex™ solutae 530	2.5 - 25	0.5	0.6	0.1	with	1	6.261 221
Calibrex™ solutae 530	5 - 50	1.0	0.6	0.1	with	1	6.261 222
Calibrex [™] solutae 530	10 - 100	1.0	0.6	0.1	with	1	6.261 223

E & OE.

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8. Liquid Handling

Dispensing/Bottletop dispensers



9.287 831

Dispensers, bottle-top, ceramus[®] classic

With ceramic pistons. High precision, bottle-top dispensers adjustable in fixed steps for the reproducible dispensing of liquids. With patented, high-purity, alumino-ceramic pistons and highly polished, DURAN® glass cylinders, guaranteeing continual durability and precision.

- no surface abrasion
- no sticking due to plastic swelling
- no thermal expansion problems

Ratchet adjustment mechanism prevents accidental adjustment of the set volume. When not in use the pistons can be locked and the delivery tubes capped to prevent loss of reagent. The glass cylinders are encased in plastic for added safety and have a window for viewing the contents. Autoclavable up to max. 121°C/2 bar.

- inlet and outlet valves are easily replaced
- fully supported delivery jet prevents 'side fling' of reagent
- screw-fixed, inlet suction tube
- High-grade materials (ECTFE, DURAN® glass, FEP) are used throughout.

Supplied with: complete with thread A 32 mm, 3 thread adapters (A 28, A 45, S 40), 1 screw-coupled suction tube, 1 discharge tube unit, one spanner for valve, with individual serial number and Single Calibration Report.

Volume	Graduations	Accuracy max. vol.	Precision max. vol.	(0//\)	PK Cat. No.
ml	ml	(≤ ± R%)	(≤ CV%)	NA (O)	
0.2 - 1	0.05	0.6	0.2		1 9.287 831 1
0.4 - 2	0.05	0.6	0.2		1 9.287 832
1 - 5	0.10	0.6	0.2		1 9.287 833
2 - 10	0.25	0.6	0.2		1 9.287 834
5 - 30	0.50	0.6	0.2		1 9.287 835
10 - 60	1.00	0.6	0.2		1 9.287 836



9.287 802

Dispensers, bottle-top, ceramus®

New dispenser technology from Hirschmann laboratory apparatus, with ceramic pistons. ceramus® are a high-precision, bottle-top dispenser range for almost all liquids.

- Environmentally-friendly, reagent-saving, recirculation valves
- Tough, ceramic pistons
- Simple, self-locking volume selection
- When not in use, pistons can be locked and delivery tubes capped to prevent loss of reagent.
- Fixed interval graduations give excellent reproducibility
- 45mm screw neck and adapters supplied allow use with a variety of reservoir bottles
- Smooth-action piston minimises operator fatigue during serial dispensing
- High-grade construction materials provide long operational life
- autoclavable at 121°C

Supplied with: ceramus® complete with thread adapters A 45mm, 3 thread adapters (A 32, S 40 and A 38), 1 screw-coupled suction tube, 1 discharge tube unit complete, 1 spanner for valve, with individual serial number and single calibration report.

Туре	Volume	Graduations	Accuracy max. vol.	Precision max. vol.	PK	Cat. No.
	ml	ml	(≤ ± R%)	(≤ CV%)		
Variable	0.2 - 1.0	0.05	0.6	0.2	1	9.287 800
Variable	0.4 - 2.0	0.05	0.6	0.2	1	9.287 801
Variable	1.0 - 5.0	0.1	0.6	0.2	1	9.287 802 2
Variable	2.0 - 10.0	0.25	0.6	0.2	1	9.287 803
Variable	5.0 - 30.0	0.5	0.6	0.2	1	9.287 804
Variable	10.0 - 60.0	1.0	0.6	0.2	1	9.287 805
Fixed	1.0	-	0.6	0.2	1	9.287 806
Fixed	2.0	-	0.6	0.2	1	9.287 807
Fixed	5.0	-	0.6	0.2	1	9.287 808
Fixed	10.0	-	0.6	0.2	1	9.287 809
Fixed	25.0	-	0.6	0.2	1	9.287 815
Fixed	50.0	-	0.6	0.2	1	9.287 816

926 E & OE. www.wenk-labtec.com

Accessories for Hirschmann Dispenser ceramus® and opus®, Digital-Bürette solarus® and Titriergerät akku drive®

Hirschmann

		suitable for					
Product	LLG code	opus®	ceramus [®]	solarus®	ceramus® classic up to 10 ml	ceramus® classic 30 + 60 ml	
System platform	9.287 880	X					
Bottle support suitable for all bottles	9.287 820	X	X	X		X	
up to diam. approx. 75-120mm							
Data power cable 2m	6.265 215	X					
Data power cable 5m	6.265 216	Χ					
Connecting cable USB	9.287 758	Χ		X			
Connecting cable RS 232	9.287 756	Χ		X			
Foot-switch for starting the dosing operation	9.287 856	X					
Hand-key for starting the dosing operation	9.287 855	Χ					
Mouse for extremely sensitive titration	9.287 844	Χ					
Touch screen foil	6.265 217	Χ]]		
Light protection window for light sensitive media	7.940 234	Χ		X			
Spanner for valve	9.287 753	Χ	Χ	Х	X	X	
Round filter set with one-sided connection (5 pcs.)	9.283 965	Χ	X	X			
Discharge tube unit, flexible, spiral-shaped, FEP, 1.5m	6.206 625	Х	X	X			
Discharge tube unit, flexible, spiral-shaped, FEP, 3m	9.287 755	Х	Х	X			
Discharge tube unit with	6.265 218					Х	
Luer-Lock-connection, FEP/PFA							
Discharge tube unit	7.200 408	Х	X	Х			
Titration discharge pointed, completely guided tube	9.287 754	opus® titration		X			
Thread adapter, from A 45 to A 32, PP	9.287 783	X	Х	X			
Thread adapter, from A 45 to A 38, PP	9,287 784	Х	X	X			
Thread adapter, from A 45 to S 40, PP	9,287 785	Х	X	Х			
Thread adapter, from A 45 to A 32, ETFE	9,287 786	X	X	X			
Thread adapter, from A 45 to A 38, ETFE	9,287 787	X	X	Х			
Thread adapter, from A 45 to S 40, ETFE	9,287 788	X	X	X			
Discharge valve, glass valve seat/glass valve ball,	9,287 750	X	X	X		X	
spring from Hastelloy						**	
Suction valve, glass valve seat/glass valve ball,	9,287 751	X	Х	X		X	
spring from Hastelloy							
Recirculation valve, glass valve seat/glass valve ball,	9,287 752	X	Х	Х			
spring from Hastelloy			•				
Suction tube FEP with screw 310mm	9.287 851	X	Х	X		X	
Suction tube FEP with screw 400mm	9.287 852	X	X	X		X	
Screw coupled suction tube FEP 310mm	6.056 430		~		X		
Screw coupled suction tube FEP 400mm	6.239 205				X		
Suction tube FEP with screw 2m	6.241 551	X	X	X	^	X	
Suction tube FEP with screw 5m	6.265 219	X	X	X		X	
Recirculation tube, 2m	6.241 552	X	X	X		X	
Recirculation tube, 5m	6.265 220	X	X	X		X	
recirculation tube, Jill	0.203 220	^	^	^		^	

Bottle holder for bottle-top dispenser ceramus® and digital burette solarus®

Suitable for all bottles up to diam. approx. 75mm to 120mm.

Hirschmann

Description	<u> </u>			PK	Cat. No.
Bottle holder			V	1	9.287 820



we can Supply this manufacturer's whole product range!



HIRSCHMANN°



Bottle-top dispensers, seripettor®/seripettor® pro

The economy dispensers for routine dispensing

BRAND

The seripettor® and seripettor® pro are innovative bottle-top dispensers with a special design. A lifting spring provides automatic filling. When the piston seal is worn out, the entire dispensing unit can be exchanged by the user rapidly and easily, without tools. Eliminating expensive repairs!

- low-cost replaceable dispensing cartridge with wiping seal. One spare dispensing cartridge included.
- semi-automatic dispensing. The spring loaded piston refills the cylinder after dispensing.
- volume setting. Toothed setting track allows quick and precise adjustment of desired volume.
- disassembles without tools. All parts can be replaced quickly. The innovative design of seripettor®/seripettor® pro
 makes cleaning and maintenance easy
- fits most bottles

seripettor®

For dispensing alkaline, buffer and vitamin solutions, as well as culture media, e.g. agar nutrient medium, up to 60°C.

seripettor® pro

Broader scope of application compared to the seripettor®; for dispensing many acidic, alkaline and saline solutions, and solvents such as essential oils.

Items supplied

Discharge tube, filling tube, spare dispensing cartridge and adapters, PP (GL45/32 and GL45/S40).

Туре	Volume	Grad.	Accuracy	Precision	PK	Cat. No.
			max. vol.	max. vol.		
	ml	ml	(≤ ± R%)	(≤ CV%)		
seripettor®	0.2 - 2	0.04	1.2	0.2	1	9.284 849
seripettor®	1 - 10	0.2	1.2	0.2	1	9.284 850
seripettor®	2.5 - 25	0.5	1.2	0.2	1	9.284 851
seripettor® pro	0.2 - 2	0.04	1.2	0.2	1	9.284 854
seripettor® pro	1 - 10	0.2	1.2	0.2	1	9.284 852
seripettor® pro	2.5 - 25	0.5	1.2	0.2	1	9.284 853

End test values relate to the nominal values (= max. volume) printed on the dispenser when the temperature (20°C) of the device, environment and distilled water is uniform, and when operated smoothly.

manufacturer's whole product range!





8. Liquid Handling **Dispensing/Bottletop dispensers**

(NEW!)

BRAND

Bottle-top dispensers Dispensette® S

The Dispensette® S bottle-top dispenser combines the proven Dispensette® technology with new innovative features making liquid dosing easy and secure.

- New discharge tube, with and without recirculation valve
- New valve system tight sealing without additional sealing rings
- Fast venting through improved aerodynamics
- Minimal force needed to operate especially with high-volume devices
- Secure volume fixing with analog slide
- Rotatable screw cap closure does not interfere with dosing
- New 1 ml dispenser available as digital and analog version
- Autoclavable (121°C)
- Easy to calibrate and adjust in order to comply with ISO 9001 and GLP guidelines
- Easy to disassemble for cleaning
- Removable filling and exhaust valve with safety bulb (closes when discharge tube is not mounted)
- To allow the bottle label to face the user, the valve block can be rotated by 360°
- Telescope filling tube easily adjusts to different bottle sizes
- DE-M marking

Analog:

Analog volume display, quickly adjustable dosing volume, securely fixed. Simple calibration adjustment with supplied tool.

Fixed-volume for standard applications. Simple calibration adjustment with supplied tool.

Especially easy to read digital display. The dispensing volume can be set accurately and reproducibly. Easy Calibration technique for adjustment in seconds without tools. Automatic display if factory settings are changed.

Included items:

Bottletop dispensers Dispensette® S, DE-M marked and supplied with performance certificate, telescope filling tube, recirculation valve (optional), mounting tool and adapters made of PP.

Bottle-top dispenser Dispensette® Analog S

Red color code. Wide range of applications, ideal for dispensing aggressive reagents, e.g. concentrated bases and acids such as H₃PO₄, H₂SO₄ (except as HCl, HNO₃ and HF), saline solutions and a variety of organic solvents.

BRAND

Volume	Grad.	Accuracy max. vol.	Precision max. vol.	Recycle valve	PK	Cat. No.
ml	ml	(≤ ± R%)	(≤ CV%)			
0.1 - 1	0.02	0.6	0.2	without	1	9.284 380
0.1 - 1	0.02	0.6	0.2	with	1	9.284 381
0.2 - 2	0.05	0.5	0.1	without	1	9.284 410
0.2 - 2	0.05	0.5	0.1	with	1	9.284 411
0.5 - 5	0.10	0.5	0.1	without	1	9.284 414
0.5 - 5	0.10	0.5	0.1	with	1	9.284 415
1 - 10	0.20	0.5	0.1	without	1	9.284 420
1 - 10	0.20	0.5	0.1	with	1	9.284 421
2.5 - 25	0.50	0.5	0.1	without	1	9.284 424
2.5 - 25	0.50	0.5	0.1	with	1	9.284 425
5 - 50	1.00	0.5	0.1	without	1	9.284 430
5 - 50	1.00	0.5	0.1	with	1	9.284 431
10 - 100	1.00	0.5	0.1	without	1	9.284 434
10 - 100	1.00	0.5	0.1	with	1	9.284 435



Bottle-top dispenser Dispensette® S Fix

Red color code (applications see Dispensette® S Analog). Further fixed volumes are available on request

(NEW!)	
BRAND	
OK Cat No	

Volume	Graduations	Accuracy max. vol.	Precision max. vol.	Recycle valve	PK	Cat. No.
ml	mi	(≤ ± R%)	(≤ CV%)			
1	-	0.6	0.2	without	1	9.284 440
1	-	0.6	0.2	with	1	9.284 441
2	-	0.5	0.1	without	1	9.284 444
2	-	0.5	0.1	with	1	9.284 445
5	-	0.5	0.1	without	1	9.284 450
5	-	0.5	0.1	with	1	9.284 451
10	-	0.5	0.1	without	1	9.284 454
10	-	0.5	0.1	with	1	9.284 455



Dispensing/Bottletop dispensers



Bottle-top dispenser Dispensette® Digital S

Red color code (applications see Dispensette® S Analog). Especially easy to read digital display.

	_
BRAI	۷D

Volume	Grad.	Accuracy	Precision	Recycle	PK	Cat. No.
		max. vol.	max. vol.	valve		
ml	ml	(≤ ± R%)	(≤ CV%)			
0.1 - 1	0.005	0.5	0.1	without	1	9.284 382
0.1 - 1	0.005	0.5	0.1	with	1	9.284 383
0.2 - 2	0.01	0.5	0.1	without	1	9.284 460
0.2 - 2	0.01	0.5	0.1	with	1	9.284 461
0.5 - 5	0.02	0.5	0.1	without	1	9.284 464
0.5 - 5	0.02	0.5	0.1	with	1	9.284 465
1 - 10	0.05	0.5	0.1	without	1	9.284 470
1 - 10	0.05	0.5	0.1	with	1	9.284 471
2.5 - 25	0.10	0.5	0.1	without	1	9.284 474
2.5 - 25	0.10	0.5	0.1	with	1	9.284 475
5 - 50	0.20	0.5	0.1	without	1	9.284 480
5 - 50	0.20	0.5	0.1	with	1	9.284 481



Bottle-top dispenser Dispensette® Organic Analog S



Yellow color code. Ideal for dispensing organic solvents, e.g., chlorinated and fluorinated hydrocarbons such as trichlorotrifluoroethane and methylene chloride, or concentrated acids such as HCl and HNO₃ (not HF) as well as trifluoroacetic acid (TFA), tetrahydrofuran (THF) and peroxides.

Volume	Grad.	Accuracy max. vol.	Precision max. vol.	Recycle valve	PK	Cat. No.
ml	ml	(≤ ± R%)	(≤ CV%)			
0.5 - 5	0.1	0.5	0.1	without	1	9.284 078
0.5 - 5	0.1	0.5	0.1	with	1	9.284 082
1 - 10	0.2	0.5	0.1	without	1	9.284 079
1 - 10	0.2	0.5	0.1	with	1	9.284 083
2.5 - 25	0.5	0.5	0.1	without	1	9.284 080
2.5 - 25	0.5	0.5	0.1	with	1	9.284 084
5 - 50	1.0	0.5	0.1	without	1	9.284 081
5 - 50	1.0	0.5	0.1	with	1	9.284 085
10 - 100	1.0	0.5	0.1	without	1	9.284 086
10 - 100	1.0	0.5	0.1	with	1	9.284 087



Bottle-top dispenser Dispensette® Organic Fix S



Color code yellow (applications see Dispensette® S Organic Analog). Further fixed volumes are available on request.

BRAND

Volu	me	Grad.	Max. vol.	Precision max. vol.	Recycle valve	Pk	K	Cat. No.
ml		ml	(≤ ± R%)	(≤ CV%)				
5 4		-	0.5	0.1	without	1	1	9.284 088
5			0.5	0.1	with	1	1	9.284 089
10		-	0.5	0.1	without	1	1	9.284 092
10		-	0.5	0.1	with	1	1	9.284 093



Bottle-top dispenser Dispensette® Organic Digital S

Yellow color code (applications see Dispensette® S Organic Analog). Especially easy to read digital display

BRAND

Volume	Grad.	Accuracy max. vol.	Precision max. vol.	Recycle valve	PI	K Ca	t. No.
ml	ml	(≤ ± R%)	(≤ CV%)				
0.5 - 5	0.02	0.5	0.1	without		1 9.28	4 070
0.5 - 5	0.02	0.5	0.1	with		1 9.28	4 074
1 - 10	0.05	0.5	0.1	without		1 9.28	4 071
1 - 10	0.05	0.5	0.1	with		1 9.28	4 075
2.5 - 25	0.1	0.5	0.1	without		1 9.28	4 072
2.5 - 25	0.1	0.5	0.1	with		1 9.28	4 076
5 - 50	0.2	0.5	0.1	without		1 9.28	4 073
5 - 50	0.2	0.5	0.1	with		1 9.28	4 077

930

Bottle-top dispenser Dispensette® S Trace Analysis Analog

(NEW!)

Dispensette® S Trace Analysis is ideal for precise volume dosing of high purity media for trace analysis. Can be used as hydrofluoric acid dispenser with Pt/Ir valve.

Included items: Bottle-top dispenser Dispensette® S TA, DE-M marked and supplied with performance certificate, telescope filling tube, recirculation valve (optional), mounting tool and bottle adapters GL 28/S 28 (ETFE), GL 32 (ETFE) and S40 (PTFE), operating manual.

Volume	Grad.	Accuracy max. vol.	Precision max. vol.	Valve spring	Recycle valve	PK	Cat. No.
ml	ml	(≤ ± R%)	(≤ CV%)				
1 - 10	0.2	0.5	0.1	Pt / Ir	without	1	4.007 914
1 - 10	0.2	0.5	0.1	Pt / Ir	with	1	4.007 915
1 - 10	0.2	0.5	0.1	Tantalum	without	1	4.007 916
1 - 10	0.2	0.5	0.1	Tantalum	with	1	4.007 917



Dispenser/bottle-top flasks, amber soda-lime glass

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

Capacity	Neck thread	Width	Height	PK	Cat. No.
ml	GL	mm	mm		
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
* auliadrical do	eien				





More bottles - please see page 60

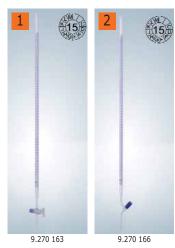


Hirschmann

BRAND

8. Liquid Handling

Titration/Burettes



Burettes, with straight stopcock, DURAN®, class AS

Schellbach line for easier reading, conformity certified, with dated batch identification, high-contrast blue graduations, main point ring graduation at major subdivisions, EX (TD) calibrated, acc. to DIN EN ISO 385. Scale length approx. 500mm.

For those products batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.de. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

Capacity	Grad.	Tolerance	Stopcock with	PK Cat. No.
ml	ml	± ml		
10	0.02	0.02	Glass key	1 9.270 161
25	0.05	0.03	Glass key	1 9.270 162
50	0.1	0.05	Glass key	1 9.270 163
10	0.02	0.02	PTFE spindle	1 9.270 164
25	0.05	0.03	PTFE spindle	1 9.270 165
50	0.1	0.05	PTFE spindle	1 9.270 166 2
10	0.02	0.02	PTFE key	1 9.270 167
25	0.05	0.03	PTFE key	1 9.270 168
50	0.1	0.05	PTFE key	1 9.270 169



3 Burettes, with straight stopcock, borosilicate glass 3.3, Class AS

BLAUBRAND®. DIN EN ISO 385. DE-M marking. 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 DAkkS (former DKD) calibration certificate, please enquire.

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

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



Burettes, with straight stopcock, borosilicate glass 3.3, class AS

With class AS, conformity certified, with batch identification, blue graduations, DIN EN 385.

PTFE spindle.

Cap	acity Grad.	Tolerance	Description	PK	Cat. No.
ml	ml	± ml			
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



Titration/Burettes

Burette with straight standard ground stopcock, DURAN®, class AS

The original DURAN® burettes are manufactured from chemically highly resistant

DURAN Group

borosilicate glass 3.3. Thanks to the precise scale, they are ideal for titration. Calibration is based on the released volume ("Ex") at a + 20°C reference temperature. This means the fluid quantity released can be taken exactly from the scale, as the liquid adhesion to the glass is taken into account in the calibration. Volume content tolerances conform to DIN and ISO accuracy limits. From now on the approved DURAN® burettes are also available with PTFE keys. Unlike the glass keys, the PTFE keys need not be greased, which makes work in the laboratory easier.

- Available in three sizes, the right burette for each application
- Proven DURAN® properties
- With Schellbach stripe and main graduations as circular divisions
- Conforms to ISO 385
- Autoclavable
- Corresponds to USP/EP and JP guidelines



Capacity	Grad.	Tolerance	Stopcock with	Height		PK	Cat. No.
ml	ml	± ml		mm			
10	0.02	0.02	Glass key	750		1	7.022 042
25	0.05	0.03	Glass key	750		1	7.022 043
50	0.1	0.05	Glass key	750		1	7.022 044
100	0.2	0.1	Glass key	750		1	9.270 925
10	0.02	0.02	PTFE key	750		1	9.270 921
25	0.05	0.03	PTFE key	750		1	9.270 922
50	0.1	0.05	PTFE key	750		1	9.270 923
100	0.2	0.1	PTFE key	750	M	1	9.270 924

Burettes, with lateral stopcock, DURAN®, class AS

With Schellbach stripe. EX (TD) calibrated. With dated batch identification. Hirschmann Conformity certified. High-contrast blue graduation for easier reading. Main point ring graduation, lateral stopcock with glass key or with PTFE-Spindle, DIN EN ISO 385. Scale length 500mm. For those products, batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

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	AC	1	9.270 156
50	0.1	0.05	Glass key		1	9.270 157 2
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



9.270 157

Burettes, with lateral stopcock, borosilicate glass 3.3, Class AS

BLAUBRAND®. DIN EN ISO 385. Conformity certified. With batch number. Graduations and inscriptions in **BRAND** highly contrasting blue enamel. With Schellbach stripe. Length approx. 800mm. Calibrated to deliver (EX). All BLAUBRAND® burettes are delivered with batch number and one batch certificate included per manufacturer's pack. Also available with individual works, USP or DAkkS (former DKD) calibration certificate, please enquire. The batch certificate is also available to download from the manufacturer's website.

Capacit	ty 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



Titration/Burettes



Micro burettes with straight stopcock, Bang pattern, borosilicate glass 3.3, Class AS



BLAUBRAND®, class AS, DE-M marking. Boro 3.3. DIN EN ISO 385. Calibrated to deliver (TD, EX).

Schellbach stripe. Available with needle valve stopcock with PTFE spindle (PTFE key in intermediate stopcock) or STJ glass stopcock (glass key in intermediate stopcock). All BLAUBRAND® burettes are delivered with batch number and one batch certificate included per manufacturer's pack. Also available with individual works, USP or DAkkS (former 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			
2	0.01	0.01	PTFE spindle	1	7.018 361
5	0.01	0.01	PTFE spindle	1	7.018 362
10	0.02	0.02	PTFE spindle	1	7.018 363
2	0.01	0.01	Glass key	1	7.018 358
5	0.01	0.01	Glass key	1	7.018 359
10	0.02	0.02	Glass key	1	7.018 360



Micro burettes, Bang pattern, with lateral stopcock, borosilicate glass 3.3, Class AS



Isolab

BLAUBRAND®, class AS, DE-M marking. Boro 3.3. DIN EN ISO 385. Calibrated to deliver (TD, EX).

Schellbach stripe. Available with needle valve stopcock with PTFE spindle (PTFE key in intermediate stopcock) or STJ glass stopcock (glass key in intermediate stopcock). Stand included.

All BLAUBRAND® burettes are delivered with batch number and one batch certificate included per manufacturer's pack. Also available with individual works, USP or DAkkS (former 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			
2	0.01	0.01	PTFE spindle	1	9.271 235
5	0.01	0.01	PTFE spindle	1	9.271 237
10	0.02	0.02	PTFE spindle	1	7.018 365
2	0.01	0.01	Glass key	1	9.271 225
5	0.01	0.01	Glass key	1	9.271 227
10	0.02	0.02	Glass key	1	7.018 364



Automatic burettes, schilling pattern, borosilicate glass 3.3/PE-LD

- 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
- 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.

Capacity	Grad.	Tolerance	Description	PK Cat. No.
ml	ml	± ml		
10	0,05	0,030	clear glass, schellbach, blue graduated	1 4.008 314 3
25	0,10	0,050	clear glass, schellbach, blue graduated	1 6.241 904
50	0,10	0,050	clear glass, schellbach, blue graduated	1 4.008 315
10	0,05	0,030	amber, without schellbach, white graduated	1 4.008 316 4
25	0,10	0,050	amber, without schellbach, white graduated	1 4.008 317
50	0,10	0,050	amber, without schellbach, white graduated	1 4.008 318

934 E & OE.

Automatic burettes acc. Dr. Schilling pattern, blue graduation, DURAN®

Fast flow burette with 500ml plastic reservoir bottle (up to 10ml) or 1000ml (up to 15ml). Schellbach stripe and graduation in high contrast blue enamel, scale length approx. 330mm.

Hirschmann

BRAND

Capacity	Grad.	Tolerance	Bottle size	Scale length	PK Cat. No.
ml	ml	± ml	ml	approx. mm	
5	0.05	0.03	500	330	1 6.070 009
10	0.05	0.045	500	330	1 7.510 426
15	0.1	0.045	1000	330	1 6.223 256
25	0.1	0.075	1000	330	1 7.510 427
50	0.1	0.075	1000	550	1 6.070 072 1



6.070 072

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

SILBERBRAND. Tolerances to class B, DIN EN ISO 385. Borosilicate glass 3.3 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 (EX).

Capacity	Grad.	Tolerance	Capacity	Height	~ (O)>	PK	Cat. No.
ml	ml	± ml	ml	mm			
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	A Z /	1	9.271 058
25* **	0.1	0.10	100	650		1	7.981 360
50**	0.1	0.1	1000	900		1	6.239 724



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

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.

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.

Materials: 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
25	0.05	0.05	1000	900	amber glass	1	9.271 087
50	0.10	0.10	1000	900	amber glass	1	9.271 088

^{*} Narrower divisions

^{**}amber, borosilicate glass 5.4

Isolab

8. Liquid Handling

Titration/Burettes



Automatic burettes, borosilicate glass 3.3, class AS

- Manufactured from pre-vacuum calibrated borosilicate glass. They meet the highest quality standards according to DIN EN ISO 385 and DIN 12700.
- Permanent quality control through all steps eliminates possible deviations from nominal values.
- Calibrated to deliver (Ex) and the tolerances are according to DIN/ISO Class "AS" standards.
- Conformity ("H") certified, with a batch number printed on the body. Batch certificate can be downloaded from the suppliers website.
- Supplied with an automatic zeroing system, VALVE stopcock and also an intermediate PTFE stopcock to recirculate the remaining liquid.
- Clear burettes are manufactured with schellbach stripe.
- Inscriptions and graduations are printed with special blue enamel. For amber burettes, white enamel is used to maximise visibility and durability.

Glass bottle - Please order separately.

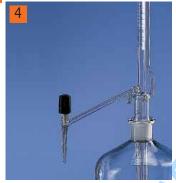
Capacity	Graduations	Tolerance	Glass	Description	Graduations	PK Cat. No.
ml	ml	± ml				
10	0.02	0.020	clear	schellbach	blue graduated	1 4.008 312 1
25	0.05	0.030	clear	schellbach	blue graduated	1 6.241 216
50	0.10	0.050	clear	schellbach	blue graduated	1 6.237 627
10	0.02	0.020	amber	without schellbach	white graduated	1 6.238 473 2
25	0.05	0.030	amber	without schellbach	white graduated	1 6.242 463
50	0.10	0.050	amber	without schellbach	white graduated	1 6.241 116



Automatic burettes acc. Pellet, without intermediate stopcock, class AS, DURAN®

Lateral PTFE-spindle without intermediate stopcock. Main point ring graduation. Schellbach stripe. Hirschmann With dated batch identification. Conformity certified. Graduation in high-contrast blue enamel, acc. to DIN EN ISO 385. Incl. 2L clear glass bottle. Scale length approx. 500mm. For those products, batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports)

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 3



Automatic burettes, Pellet pattern, borosilicate glass 3.3, Class AS, without stopcock

BLAUBRAND®, class AS, DE-M marking. Boro 3.3. DIN EN ISO 385. Calibrated to deliver (TD, EX). **BRAND** Schellbach stripe. With needle-valve stopcock with PTFE spindle. Automatic zeroing. Total height approx. 1 m incl. 2000 ml bottle (soda-lime glass). Incl. one batch certificate. Also available with individual works, USP or DAkkS (former DKD) calibration certificate, please enquire. The batch certificate is also available to download from the manufacturer's website.

	Capacity	Grad.	Tolerance	Description	PK	Cat. No.
	ml	ml	± ml			
k	10	0.02	0.02	with bottle	1	7.018 337
	25	0.05	0.03	with bottle	1	7.018 338
	50	0.1	0.05	with bottle	1	7.018 339
	10	0.02	0.02	without bottle	1	7.055 412
ſ,	25	0.05	0.03	without bottle	1	7.076 593
	50	0.1	0.05	without bottle	1	7.082 062



Automatic burettes acc. Pellet, with stopcock, class AS, DURAN®

Lateral glass stopcock and intermediate stopcock. Scale length approx. 500mm. Hirschmann Main point ring graduation. Schellbach stripe. With dated batch identification. Conformity certified. Graduation in high-contrast blue enamel, acc. to DIN EN ISO 385. Incl. 2 I clear glass bottle. For those products, batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are available.

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 5

E & OE. www.wenk-labtec.com

8. Liquid Handling Titration/Burettes-Titrators

Automatic burettes acc, Pellet, with PTFE-spindle and intermediate stopcock, class AS, DURAN®

Lateral PTFE-spindle and intermediate stopcock. Scale length approx. 500mm. Main point ring graduation. Schellbach stripe. With dated batch identification. Conformity certified.

Graduation in high-contrast blue enamel, acc. to DIN EN ISO 385. Incl. 2 I clear glass bottle.

For those products, batch calibration reports, which are free of charge, can be generated and printed on www.hirschmannlab.com. Additional single calibration reports or DAkkS certificates (former DKD calibration reports) are

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
FΛ	0.1	0.05	1 0 270 780 1



2 Automatic burettes, Pellet pattern, borosilicate glass 3.3, Class AS, with stopcock

BLAUBRAND®. Class AS, to DIN EN ISO 385. Boro 3.3. With intermediate stopcock.

DE-M marking. 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 (EX). Choice of models, either with needle-valve stopcock with PTFE spindle (intermediate stopcock with PTFE-key) or with NS glass stopcock (intermediate stopcock with glass key).

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 DAkkS (former DKD) calibration certificate, please enquire. The batch certificate is also available to download from the manufacturer's website.

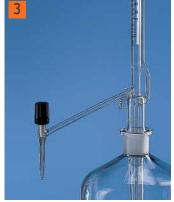
Capacity	Grad.	Tolerance	Stopcock		PK	Cat. No.
ml	ml	± ml				
10	0.02	0.02	PTFE		1	9.270 764
25	0.05	0.03	PTFE		1	9.270 767
50	0.1	0.05	PTFE		1	9.270 768
10	0.02	0.02	Glass		1	9.270 734
25	0.05	0.03	Glass		1	9.270 737
50	0.1	0.05	Glass	I U/M	1	9.270 738



Automatic burettes, Pellet pattern, borosilicate glass 3.3, class B, without stopcock

SILBERBRAND, class B. Boro 3.3. DIN EN ISO 385. Calibrated to deliver (TD, EX). Schellbach stripe. With needle-valve stopcock with PTFE spindle. Automatic zeroing. Total height approx. 1 m incl. 2000 ml bottle (soda-lime glass).

Capacity	Grad.	Tolerance	Description	PK	Cat. No.
ml	ml	± ml			
10	0.02	0.03	with bottle	1	7.018 326
25	0.05	0.05	with bottle	1	7.018 327
50	0.1	0.08	with bottle	1	7.018 328
10	0.02	0.03	without bottle	1	7.300 388
25	0.05	0.05	without bottle	1	7.077 524
50	0.1	0.08	without bottle	1	7.076 570



BRAND

8. Liquid Handling

Titration/Titrators



Automatic burettes, Pellet pattern, borosilicate glass 5.4 amber, class B, with stopcock

(NEW!)

BRAND

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

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 (EX). Choice of models, either with PTFE or glass key dispensing and intermediate stopcocks. With 2-litre soda-lime glass reservoir (160mm dia. x 200mm height, with 29/32 ground glass neck) as indicated. Overall height with bottle approx. 1m.

Capacity	Grad.	Tolerance	Keys	Description	PK	Cat. No.
ml	ml	± ml				
25*	0.1	0.08	PTFE	with bottle	1	9.270 540
50	0.1	0.1	PTFE	with bottle	1	9.270 542
25*	0.1	0.08	PTFE	without bottle	1	7.200 776
50	0.1	0.1	PTFE	without bottle	1	7.200 775
25*	0.1	0.08	Glass	with bottle	1	9.270 536
50	0.1	0.1	Glass	with bottle	1	9.270 538
25*	0.1	0.08	Glass	without bottle	1	6.201 498
50	0.1	0.1	Glass	without bottle	1	6.201 499





2 Automatic burettes, Pellet pattern, borosilicate glass 5.4 amber, class B, without stopcock



SILBERBRAND, amber glass. Borosilicate glass 5.4.

25 ml: Error limits according to class B, DIN EN ISO 385.

50 ml: DIN EN ISO 385, class B.

Calibrated to deliver (TD, EX). Available with titration stopcock with PTFE key or glass key.

Total height 25 ml approx. 0.7 m, total height 50 ml approx. 1 m incl. 2000 ml bottle (soda-lime glass) as indicated.

Capacity	Grad.	Tolerance	Keys	Description	PK	Cat. No.
ml	ml	± ml				
25*	0.1	0.08	PTFE	with bottle	1	7.079 511
50	0.1	0.10	PTFE	with bottle	1	6.072 800
25*	0.1	0.08	PTFE	without bottle	1	7.300 390
50	0.1	0.10	PTFE	without bottle	1	7.300 389
25*	0.1	0.08	Glass	with bottle	1	4.000 027
50	0.1	0.10	Glass	with bottle	1	6.203 367
25*	0.1	0.08	Glass	without bottle	1	7.055 909
50	0.1	0.10	Glass	without bottle	1	7.082 063





Burette bottles, borosilicate glass 3.3

Burette bottle for automatic burettes is made from heat resistant glass. Each bottle has a NS 29/32 neck grinding that fits to burette.

Capacity	Diam.	Height	Colour	PK Cat. No.
ml	mm	mm		
1000	110	200	clear	1 9.270 905
1000	110	200	brown	1 9.270 915
2000	160	200	clear	1 6.237 628 3
2000	160	200	brown	1 6.238 474



Spare reservoir bottles, glass

Boro 3.3. Available in clear glass or amber glassor soda-lime glass. Volume: 2000ml, diameter: 160mm, height: 200mm.

BRAND

Material	Capacity	Diam.	Height	Colour	PK	Cat. No.
	ml	mm	mm			
Boro 3.3	2000	160	200	clear	1	6.018 346
Boro 3.3	2000	160	200	amber	1	6.018 347
Soda-lime glass	2000	160	200	clear	1	7.059 541
Soda-lime glass	2000	160	200	amber	1	7.400 768

8. Liquid Handling Titration/Titrators

1 Orsat blowball Natural rubber. Translucent. Deutsch & Neumann

 Type
 PK
 Cat. No.

 Orsat blowball
 1
 9.115 510



2 Hand bellows

Single spray. Without net.

Deutsch & Neumann
Size 3.

 Type
 PK
 Cat. No.

 Hand bellows
 1
 9.270 995



3 Hand bellows

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

Isolab

Type PK Cat. No.

Burette bellow 1 **6.237 629**



4 Hand bellows

Double spray. With net.

Deutsch & Neumann
Size 5.

Type PK Cat. No.

Hand bellows 1 9.270 990

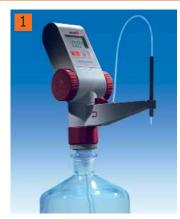




VITI AB

8. Liquid Handling

Titration/Titrators



Digital Burettes, VITLAB® continuous

The pulse-free, dispensing operation of the Continuous burettes makes titration safer at high-level precision. The Continuous series can be used for titration agents up to a

concentration of 1 Mol/I. The patented dual pristons pump provides permanent and pulse-free the liquid requested. Refills are not necessary. The Continuous burette series undercuts the margins of error defined by DIN EN ISO 8655-3 especially in partial volumes. All operation controls and the digital display have an ergonomic and functional design and are arranged clearly.

- Pulse-free dispensing technique for continuous and quick titration
- patented recirculation valve avoids reagent waste
- Clear and precise display of titrated volume
- Battery-operated, easily replaceable micro-batteries (1.5V)
- Dispensing range from 0.010ml to 999.9ml
- Dispensing volume per hand wheel revolution: 2.5ml (Continuous E), 5.0ml (Continuous RS)
- Can be calibrated
- Device can be rotated on the bottle 360°
- Telescopic inlet tube extendible from 200 to 350mm
- Adapters for drying tube and filter
- Certificate of conformity according to DIN 12600

Accuracy <±0.2%, Coefficient of variation <±0.1%

Supplied with: Burette continuous, 3 PP adapter (GL 32, GL 38, S 40), 1 teleskopic suction tube, 1 teleskopic discharge tube, 2 micro batteries 1.5 V (LR 03/AAA), manual, quality certificate.



Туре	Capacity	Neck thread	Capacity/U		F	K	Cat. No.
	ml	GL	ml	A			
Е	2.5	45	2.5			1	9.284 020
RS	5.0	45	5.0			1	9.284 021

9.287 779

Digital burettes, solarus®

A titration unit with a reagent recirculation system for manual titration directly from the reagent bottle. Power supplied by a solar cell.

Available in three volumes (10 ml, 20 ml and 50 ml).

Advanced energy concept, precision results - sets standards as the world's first digital burette with integrated solar cell. The power supply for the electronics and display is derived exclusively from an integrated solar cell. Batteries can be completely dispensed with. Easily replaceable valves, individual calibration with "Quick-Cal" and permanent storage of the manufacturer's calibration facilitate rapid and flexible adaptation. The vivid digital display prevents meniscus reading errors and is always clearly legible, regardless of the viewing angle. The handwheels with soft touch surface are ergonomically optimised for particularly precise control.

- Power supplied by a solar cell
- Free rotation
- Media recirculating system for simple and rapid venting without reagent loss
- Handwheels with soft touch surface
- Clearly legible display, regardless of the viewing angle
- A light protection window for the valve block is also included in the scope of delivery
- Individual calibration of user-specified adaptations with "Quick-Cal"
- Serial bidirectional interface (RS 232 and USB)

Supplied with: solarus® with A 45 mm thread, 3 thread adapters (A 32, A 38 and S 40), discharge tube, 1 suction tube with retainer screw, 1 spanner for valve, brown light protection window, with individual serial number and single calibration report.

Description	Accuracy max. vol.	Precision max. vol.	PK Cat. No.
	(≤ ± R%)	(≤ CV%)	
Capacity 10 ml	0.3	0.1	1 9.287 779 3
Capacity 20 ml	0.2	0.1	1 9.287 780
Capacity 50 ml	0.2	0.1	1 9.287 781
Interface cable			1 9.287 756

Accessories and spare parts, Solarus®

Hirschmann

Hirschmann

Description	PK	Cat. No.
Discharge unit titration with fine tip	1	9.287 881
Discharge tube unit, flexible, spiral shaped, inner dia. 1.5mm	1	6.206 625
Discharge unit titration, variable, complete with tube holder, approx. 400 mm, FEP	1	9.287 882
Adapter with A 45 filler	1	9.287 883
Thread adapter, silicone, A 45 compliant with NS 29/32 ground adapter	1	9.287 884

940

Titration/Titrators

Bottle top burette Titrette®

Titrette® - The next generation digital burette!

BRAND

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°SH = 1ml)

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.

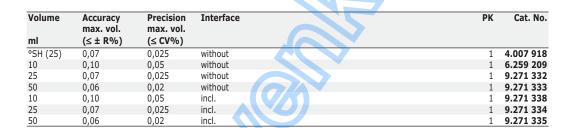
Class? Like Class A!

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





Accessories for Titrette®		(NEW)
	311	BRAND

Description	PK	Cat. No.
Valve head for Titrette® 10ml	1	9.284 161
Valve head for Titrette® 25ml	1	4.000 395
Valve head for Titrette® 50ml	1	4.000 396
Telescopic filling tubes 170 to 330mm	1	9.284 503
Telescopic filling tubes 250 to 480mm	1	9.284 504
Inspection windows, 2 x transparent and 2 x brown	1	4.000 394
Dosing cylinder with valve block for Titrette® 10ml	1	9.284 162
Dosing cylinder with valve block for Titrette® 25ml	1	6.261 478
Dosing cylinder with valve block for Titrette® 50ml	1	6.261 803
Titrating cannula Titrette® 10ml with screw cap and integrated discharge/recirculation valve	1	9.284 163
Titrating cannula Titrette® 25/50ml with screw cap and integrated discharge/recirculation valve	1	6.261 119
Filling valve	1	9.284 482

8. Liquid Handling Titration/Titrators

Digital-burette, opus®

A titration unit with a reagent recirculation system for motor-powered titration directly from the reagent bottle. Available in three volumes (10 ml, 20 ml and 50 ml).

Hirschmann

Drop by drop towards precise analysis results - combines accuracy with time-saving and user-friendliness. Electronic control of titration enables the achievement of reproducible results and precisely defined dynamics each time. Time-saving rapid titration with subsequent fine titration enhances accuracy and efficiency. The titration impulse triggered by the motor enables the achievement of a droplet break-up with output volumes from $10~\mu$ l to 99.999~ml and delivers resolutions up to the third decimal place. The titration procedure is configured on the intuitive TFT touchscreen. The user is guided through menu functions which are easily legible and comprehensible. Nine different titration procedures with their complete settings can be saved in the method memory and reactivated at any time if required.

Overview of details

- Electronic control and dispensing of volumes
- A light protection window for the valve block is also included in the scope of delivery
- Titration impulse triggered by the motor enables the achievement of a droplet break u p from 10 µl for precision determination
- Media recirculating system for simple and rapid venting without reagent loss
- Free rotation
- TFT touchscreen with user-friendly menu
- Method memory for nine different titration procedures with storage of all settings
- USB and RS232 interface for PC connection
- Integration in automated procedures possible
- Power supply 100-240V, with EU, UK, US plug

Supplied with: opus® titration complete with thread 45 mm, 3 adapters (A 32, A 38 and S 40), 1 screw coupled suction tube, 1 titration discharge unit and 1 power supply, 1 brown light protection window, touch screen module "titration", Data Power Cable 0.75 m, instruction manual, single calibration report.

Description	Accuracy	Precision		PK Cat. No.
	max. vol.	max. vol.		
	(≤ ± R%)	(≤ CV%)	AV/OF	
Volume 10 ml	0.6	0.2		1 9.287 875 1
Volume 20 ml	0.6	0.2		1 9.287 870
Volume 50 ml	0.6	0.2		1 9.287 871



9.287 875

8. Liquid Handling Titration/Digital burettes



Motor-driven piston burette Titronic® 300





Motor-driven piston burette with 20 or 50ml dosing unit. For manual titrations and SI Analytics highly precise dosing tasks. The TITRONIC® 300 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.

Supplied with:

T 300/20 M1: Basic unit without magnetic stirrer with ready to use assembled 20 ml dosing unit TZ 3130 with hoses, fittings and titration tip, controller TZ 3880, titration clamp Z 305, stand rod TZ 1748 and power supply 100-240 V

T 300/50 M1: as T 300/20 M1, only with ready to use assembled 50 ml dosing unit TZ 3160

T 300/20 M2: as T 300/20 M1, additionally with magnetic stirrer TM 50

T 300/50 M2: as T 300/20 M2, only with ready to use assembled 50 ml dosing unit TZ 3160



Interfaces: 1 x USB A and 1 x USB B

2 RS-232-C

Stirrer connection: TM 50 power supply directly through piston burette

Keyboard connection: The unit is operated using the keys on the device itself, the controller TZ 3880 and

optional PC-keyboard (USB)

Display: graphics-capable TFT display Volume indicator: graphics-capable TFT display 000.005 to 9999.999 ml

Display resolution: 0.005

Dosing speed: max. 100ml/min (with 50 ml unit)

Fill time: 30secs. to 99secs. adjustable (time depends on cylinder volume)

Dosing units: 20ml or 50ml dosing unit, interchangeable

Burette resolution: 8000

Dispensing accuracy: 0.15% system measurement deviation, 0.05% accidental measurement deviation

determined in accordance with EN ISO 8665, Part 3

Supply requirements: 230V, 50/60Hz Conformity: ISO 8665, Part 6

CE mark: EMC: 2004/108/EG; safety EG- Directive 2006/95

Туре	Burette attachment	PK	Cat. No.
	ml	ΑΛΥ	
T 300/20 M1	20	1	9.863 180
T 300/50 M1	50	1	9.863 181
T 300/20 M2	20	1	9.863 182
T 300/50 M2	50	1	9.863 183



Accessories please see page 945.

We can supply this manufacturer's whole product range! SI Analytics



8. Liquid Handling Titration/Digital burettes

Motor-driven piston burette TITRONIC® 500

Motor-driven piston burette with intelligent exchangeable doing units with automatic recognition of unit size and reagent data. SI Analytics 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 automatisation of the solution preparation. The TITRONIC® 500 can 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.

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

3x USB (2x USB A and 1x USB B), 2x RS-232-C Interfaces:

Stirrer connection: TM 235 or alternative paddle stirrer

The unit is operated using the keys on the device itself., the controller TZ 3880 and Keyboard:

optional PC-keyboard (USB)

Display: graphics-capable 3.5" TFT display

Volume display: 00.00 to 999.9ml

0.001ml (depending on exchangeable unit) Display resolution: Dosing speed: max. 100ml/min (with 50ml unit)

min. 20 to 999 sec adjustable (time according to the cylinder volume) Filling speed:

Exchangeable units: 5, 10, 20ml or 50ml exchangeable units with reagent recognition

Burette resolution:

Dosing accuracy: systematic error 0.15%, 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

Туре	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



8. Liquid Handling Titration/Digital burettes

Automatic Titrators TitroLine® 5000

(NEW!)



Very compact new titrator for simple routine titrations. Thanks to the standard methods the creating of methods is no longer required. Just load the method and press the start

button. GLP compliant results with titration curve can be documented on a connected printer or USB-memory stick.

- Following titration modes are possible:
- Titrations to pH, mV and µA endpoint (2 EP)
- Titrations to one equivalence point (pH und mV) with dynamic or linear titration addition
- Manual titrations with the controller
- Dosing tasks
- Number of methods: 5

Typical applications for the TitroLine® 5000 are:

- Salt content in foodstuffs (cheese, soy sauce, ketchup)
- Total acidity in wine and beverages
- Nitrogen according to Kjeldahl
- Chloride in drinking water and other samples
- Alkalinity (p + m-value)
- FOS/TAC

Supplied with:

TL 5000/20 M1: Basic unit without electrode, with ready to use assembled 20 ml dosing unit TZ 3130 with hoses, fittings and titration tip, controller TZ 3880, titration clamp Z 305, stand rod TZ 1748 magnetic stirrer TM 50 and power supply 100-240 V

TL 5000/50 M1: as TL 5000/20 M1, only with ready to use assembled 50 ml dosing unit TZ 3160 TL 5000/20 M2: as TL 5000/20 M1, additionally with pH combination electrode and buffer set TL 5000/50 M2: as TL 5000/20 M2, only with ready to use assembled 50 ml dosing unit TZ 3160

TL 5000/20 M3: as TL 5000/20 M1 additionally with Ag electrode and electrode cable

Specifications

TZ3803

Measuring input electrode pH/mV-input with DIN or BNC socket

Measuring input Pt 1000: Temperature sensor connection for resistance probes Pt 1000 (socket: 2 x 4 mm)

Interfaces: 1 x USB A und 1 x USB-B

2 x RS-232-C

Stirrer connection: TM 50 power supply directly through piston burette

Keyboard: The unit is operated using the keys on the device itself, the controller TZ 3880 and

optional PC-keyboard (USB)

Display: graphics-capable TFT display

Dosing units: 20 ml or 50 ml dosing unit, interchangeable

Burette resolution: 8000

Dosing accuracy: systematic error 0.15 %, random error 0.05 % in compliance with EN ISO 8655-6

Supply requirements: 230V, 50/60Hz Conformity: ISO 8655, part 6

Reagent bottle brown, 1 Litre

CE-mark: EMC: 2004/108/EG; safety EG- Directive 2006/95

Туре	PK	Cat. No.
TL 5000/20 M1	1	9.863 184
TL 5000/50 M1	1	9.863 185
TL 5000/20 M2	1	9.863 186
TL 5000/50 M2	1	9.863 187
TL 5000/50 M3	1	9.863 191

Accessories for Titronic® 300 and TitroLine® 5000 Type Description PK Cat. No. TM 50 Magnetic stirrer 1 9.863 188 TZ 3835 USB keyboard 1 9.863 159 TZ 3830 USB-HUB 1 9.863 189



9.863 190

8. Liquid Handling Titration/Digital burettes



Automatic Titrators, TitroLine® 6000/TitroLine® 7000

Compact new titrators 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

Supplied with:

TL 6000/7000-M1/10: 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 6000/7000-M1/20: 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 6000/7000-M1/50: 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 6000/7000-M2/20: 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

Temperature:

Interfaces:

Measuring input pH/mV: pH/mV-input with DIN or BNC socket, **TitroLine® 7000 additionally with ID**

function for automatic detection of electrode

Measuring input Dead Stop: µA-input for double platinum electrode (socket 2 x 4mm), pole voltage adjustable

for resistance probes Pt 1000 (socket: 2 x 4mm) 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 0.15%, 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

Туре	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
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

SI Analytics

Туре	Description	PK	Cat. No.	
TM 235	Magnatic stirrer	1	9.863 154	
	Magnetic stirrer	1		
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	

SI Analytics

KF Titrators TitroLine 7500® KF/TitroLine 7500® KF trace

You can ${\rm \acute{t}}$ go wrong with the new TitroLine $\rm ^{8}$ KF titrators from SI-Analytics. The

TitroLine $^{\$}$ 7500 KF is the volumetric generalist for a wide range of use and the

TitroLine® 7500 KF trace is the specialist for low water contents. Both new titrators are to be characterized by following features:

- Fast, easy and precise
- With standard methods for different applications (titer determination, blank value...)
- High visible full color display, that can be easily viewed from a distance and extreme angles
- Storage of results via USB port (PDF and CSV -format)
- with online curve
- With intelligent interchangeable modules (only TitroLine® 7500 KF)

Applications TitroLine 7500® KF: KF volumetry, dead-stop-titrations (SO₂, bromine number) **Applications TitroLine 7500® KF trace:** KF coulometry, bromine number

Volumetric KF-Titrators supplied with:

TL 7500 KF 05: titrator unit, interchangeable module WA 05, TM 235 KF titration stand with integrated stirrer and pump, titration vessel TZ 1770, micro-dual platinum electrode KF 1100 and starter kit, power supply 100-240 V

TL 7500 KF 10: titrator unit, interchangeable module WA 10, TM 235 KF titration stand with integrated stirrer and pump, titration vessel TZ 1770, micro-dual platinum electrode KF 1100 and starter kit, power supply 100-240 V

TL 7500 KF 20: titrator unit, interchangeable module WA 20, TM 235 KF titration stand with integrated stirrer and pump, titration vessel TZ 1770, micro-dual platinum electrode KF 1100 and starter kit, power supply 100-240 V

Coulometric KF-titrators supplied with:

TL 7500 KF trace M1: titrator unit, generator electrode TZ 1752 without diaphragm, magnetic stirrer TM 235, titration vessel TZ 1751, micro-dual platinum electrode KF 1150

TL 7500 KF trace M2: titrator unit, generator electrode TZ 1752 without diaphragm, TM 235 KF titration stand with integrated stirrer and pump, titration vessel TZ 1754, micro-dual platinum electrode KF 1150

TL 7500 KF trace M3: titrator unit, generator electrode TZ 1753 with diaphragm, magnetic stirrer TM 235, titration vessel TZ 1751, microdual platinum electrode KF 1150

TL 7500 KF trace M4: titrator unit, generator electrode TZ 1753 with diaphragm, TM 235 KF titration stand with integrated stirrer and pump, titration vessel TZ 1754, micro-dual platinum electrode KF 1150

Specifications

Measuring range TitroLine 7500° KF: 10ppm - 100% Dosing accuracy: <0.15%

Measuring range TitroLine 7500® KF trace: 1ppm - 5% (10µg to 100mg)

Accuracy: 0.3% at 1mg water

Number of user methods: 50

Printer: HP PCL, Seiko DPU S 445, PDF Interface: 2 x USB-A, 1 x USB-B, 2 x RS232

PC Software: TitriSoft 3.1

Туре	N O	PK Cat. No.
TL 7500 KF 05		1 9.863 170
TL 7500 KF 10		1 6.255 582 1
TL 7500 KF 20		1 9.863 171
TL 7500 KF trace M1		1 9.863 172 2
TL 7500 KF trace M2		1 9.863 173
TL 7500 KF trace M3		1 9.863 174
TL 7500 KF trace M4		1 9.863 175





8. Liquid Handling

Titration/Digital burettes-Pumps/Drum pumps



1 Titrators TitroLine 7750®

(NEW) SI Analytics

Titroline® 7750 is the all-rounder for both potentiometric titration and volumetric KF titration. The TitroLine® 7750 combines the features of the potentiometric titrator TitroLine® 7000 and the volumetric Karl Fischer titrator TitroLine® 7500.

The new TitroLine® 7750 is characterized as follows:

- Highly visible full color display, that can be easily viewed from a distance and extreme angles
- With new interchangeable modules which all relevant reagent and unit data can be stored
- Thanks to the 2 x USB-host, 1 x USB-PC and 2 x RS232 ports, very communicable. Connect for example, USB keyboard, USB printer, barcode reader, USB flash drives, balances, PC und further SI Analytics devices such as piston burettes and sample changers
- Storage of results via USB port (PDF and CSV -format) including method transfer
- With standard methods for potentiometric and KF titration

Supplied with:

TL 7750: Basic unit without magnetic stirrer, with stand rod TZ 1510, titration clamp Z 305, keyboard TZ 3835 and power supply 100-240 V

TL 7750-M1: as TL 7750, additionally with magnetic stirrer TM 235 **TL 7750-TitriSoft:** as TL 7750-M1, additionally with TitriSoft 3.0 (TZ 3071)

TL 7750 KF 05: Titrator unit, exchange unit WA 05, TM 235 KF titration stand with integrated stirrer and pump, titration vessel TZ 1770, micro double platinum electrode KF 1100 and starter kit, power supply 100-240 V

TL 7750 KF 10: as TL 7750 KF 05, only with exchange unit WA 10 TL 7750 KF 20: as TL 7750 KF 05, only with exchange unit WA 20

Туре	MO	PK	Cat. No.
TL 7750		1	9.863 176
TL 7750-M1		1	6.258 235
TL 7750-TitriSoft		1	9.863 177
TL7750 KF 05		1	9.863 178
TL7750 KF 10		1	7.981 381
TL7750 KF 20		1	9.863 179



Titrators TitroLine® 7800



The TitroLine® 7800 is the new all-rounder for potentiometric titration with an additional digital measuring input. That enable for example the connection and use of pH and conductivity sensors at the same time. An additional external conductometer is not required anymore. The TitroLine® 7800 can also be used as volumetric KF titrator.

The TitroLine® 7800 is to be characterized by following features:

- High visible full color display, that can be easily viewed from a distance and extreme angles
- With intelligent interchangeable modules and storage of all relevant reagent data
- Includes two USB-A, one USB-B, two RS-232 and one LAN port for expansion and connection of devices such as keyboard, printer, barcode reader, memory sticks, balances, PC an further SI Analytics devices
- Storage of results via USB port (PDF and CSV -format) including method transfer
- With one analogue and one digital measuring input. The digital input allows the connection of digital (IDS) pH and conductivity sensors.
- With standard methods for potentiometric and KF titration

Supplied with: Basic unit with or without magnetic stirrer, with stand rod TZ 1510, titration clamp Z 305, keyboard TZ 3835 and power supply 100-240 V

Туре	PK	Cat. No.
TL 7800 (without magnetic stirrer)	1	9.863 168
TL 7800-M1 (with magnetic stirrer)	1	9.863 169



3 Drum pump Pump-it®

For rapid and clean emptying from cans, drums and small barrels up to 60L.

Bürkle

- Precise dosing, without dripping
- for liquids up to a viscosity of 1500 cPs at 20°C
- Pump connection suitable for 64mm dia. (BSI) container threads
- stepless length adjustment of immersion tube
- Threaded adapters for most commercially-sold containers available
- Not suitable for HCl

Material	Immersion depth	Flow rate	PK	Cat. No.
	mm	L / min.		
PP/FKM	1000	8	1	9.001 110

Bürkle

Bürkle

Bürkle

Bürkle

Adapter set for Pump-it® drum pump

Consisting of:

- 2" Coarse thread, Mauser L ring, green
- 2" coarse thread, Leer/Tri-Sure®, brown
- 2" Fine thread steel drum, blue
- DIN 60, Mauser-barrel, black
- DIN 51, black (image in centre)

Туре	PK	Cat. No.
Adapter set for Pump-it can pump	1	9.001 111



2 Hand pumps Otal

For jerry cans and ballons up to 60l capacity. Universal bungs for container openings of $30\ \text{to}\ 70\text{mm}$ diameter.

PP: weak acids, caustic solutions and detergents

PVDF: chlorine bleaching, not for strongly oxidizing acids and caustic solutions

Stainless steel: solvents and liquids of VbF Hazard Class AIII (not easily flammable)

Material	Diam.	Flow	Immersion	PK Cat. No.
		rate	depth	
	mm	L / min.	mm	
PP*	10	4	450	1 9.001 210
PP	12	14	700	1 9.001 112
PP	15	20	700	1 9.001 115
PP	18	26	700	1 9.001 118
PVDF	16	20	700	1 9.001 135
Stainless steel tubing	18	26	900	1 9.001 137
PP / PVC dispensing tube	12	12	700	1 9.001 138



*Miniature pump for container openings 20 to 36mm.

3 Foot pumps Otal

For jerry cans and ballons up to 120l capacity. Universal bungs for container openings of $30\ \text{to}\ 70\text{mm}$ diameter.

PP: weak acids, caustic solutions and detergents

PVDF: chlorine bleaching, not for strongly oxidizing acids and caustic solutions

Stainless steel: solvents and liquids of VbF Hazard Class AIII (not easily flammable)

Material	Diam.	Flow rate	Immersion depth	PK	Cat. No.
	mm	L / min.	mm		
PP	15	20	700	1	9.001 015
PP	18	26	700	1	9.001 018
PP	22	30	900	1	9.001 022
PVDF	16	20	700	1	9.001 130
Stainless steel tubing	18	26	900	1	9.001 132
PP / PVC dispensing tube	12	12	700	1	9.001 133



4 Siphons

Transparent with stopcock. Simple to use, suitable for occasional dispensing of non-aggressive liquids from a higher drum to a lower vessel, following the siphoning principle.

Material	Immersion		Diam.	Flow	PK	Cat. No.
	depth			rate		
	mm		mm	L / min.		
LDPE/PVC	1000		15	9	1	9.001 355



5 Barrel pumps, stainless steel

Stainless steel V2A and PTFE.

For safe dispensing of liquids with a low flash point. Electrostatic charge can be dissipated through accessories antistatic set and drum screwthread connection. Not suitable for acetone.

Immersion depth	Diam.	Description	PK	Cat. No.
mm	mm			
570	32	rigid dispensing tube	1	9.001 340
910	32	rigid dispensing tube	1	9.001 341
570	32	flexible tubing with stopcock	1	9.001 362
910	32	flexible tubing with stopcock	1	9.001 363
360	32	Removable discharge tube	1	6.083 463
360	32	flexible tubing with stopcock	1	6.802 513



8. Liquid Handling **Pumps/Drum pumps**

Barrel pumps, screw joints

Barrel screw joints for stainless steel drum pumps.

Constructed in nickel-plated brass. For containers with R2", internal steel barrel thread.

Bürkle

Bürkle

Cat. No.

Description	PK Cat. No.
Barrel screw joint 2"	1 9.001 345 1
Barrel screw joint, gas-tight 2", hermetic sealing	1 6.090 497 2







Barrel pumps, PP

- For decanting acids, caustic solutions and aggressive detergents

- Excellent recovery of residual liquid in the barrel provided by base-sitting, non-return valve and steplessly adjustable immersion tube

- For barrels and tanks from 60 to 1000l.

Type A: With rigid, angled, dispensing nozzle.

Type B: With flexible, PVC dispensing hose and stopcock.

Immersion tube dia.:

Immersion

Max. pump capacity: up to approx. 12 L/min.



туре	depth	Length	V/OY "	Cat. No.
	mm	mm		
A	500	600		9.001 356
В	500	600		9.001 366
Α	650	740		9.001 357
В	650	740		9.001 367
Α	800 <	900		9.001 358
В	800	900		9.001 368
Α	1000	1090		9.001 359
В	1000	1090		9.001 369
Α	1250	1340		9.001 364
В	1250	1340		9.001 370
Α	1500	1590		9.001 365
В	1500	1590		9.001 371
			-	



Barrel pump, PTFE

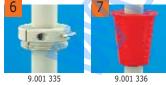
For ultrapure and aggressive liquids.

Made from solid, pure white PTFE, giving an excellent chemical resistance to all media

(with the exception of elemental fluorine). With shut-off valve to reliably prevent the escape of harmful or hazardous liquids and unwanted drips.

Electrostatic charge can be dissipated through the accessory antistatic set and drum screwthread connection.

Tube diam.	Immersion depth	Flowrate	Description	PK	Cat. No.
mm	mm	ml / pass			
32.0	600	270	with discharge tube	1	9.001 260
32.0	950	400	with discharge tube	1	6.801 515
32.0	600	270	with discharge hose	1	7.639 613
32.0	950	400	with discharge hose	1	6.255 584



	9
9.001 337	9,001 338

Screwthread connections for PP and PTFE drum pumps

Bürkle

Туре	Material	PK	Cat. No.
R2", internal steel barrel thread	PP	1	9.001 335 6
Drum stoppers for 40 to 70 mm	PVC	1	9.001 336 7
Mauser 2", internal coarse screwthread	PP	1	9.001 337 8
Tri-Sure®, internal coarse screwthread	PP	1	9.001 338 9
Drum screwthread connection 2", counternut	PP	1	9.001 347

Mini solvent pump

The self-closing discharge (with auto-stop function) of the Mini solvent pump ensures

absolutely precise filling with no dripping at all. Dosing is even easy in very small
containers such as test tubes, which present no problems. A hose can optionally be fastened onto the discharge spout
(internal Ø 6 mm), thus making it possible to fill the container from a greater distance.

The Mini solvent pump is especially compact and very well balanced, which makes it possible to fill without tipping, even from very small containers.

Thanks to its sturdy design and high-quality materials, the Mini solvent pump consistently ensures neat and reliable filling throughout its long service life, easily and conveniently.

- Ideal for 1-5 I containers
- Connecting thread GL 45
- Parts in contact with medium made of PTFE and stainless steel (1.4301, 1.4404)
- PTFE hose (6 x 8 mm) 0.4 m
- Including grounding cable 2 m
- Adapters available as accessories for S 40, GL 38 and GL 32

Description	Flow rate	1	PK Cat. N	0.
	I / min.			
Mini solvent pump, GL 45	1.8		1 9.001	351 1
Adapter, PTFE for S 40			1 9.001	352
Adapter, ETFE for GL 38			1 9.001	353
Adapter, ETFE for GL 32			1 9.001	354



9.001 35



3 4 Solvent pump hand operated

- For contamination-free, dispensing of organic solvents and flavouring agents.

Bürkle

(NEW)

- Suitable for all commercially available, stainless steel drums up to 60L with R2" fine thread necks, hand pump for tinplate canisters incl. adapter for pull-out spouts (immersion depth 600mm fully adjustable).
- Gas-tight pump can be completely shut-off using two ball valves.
- Medium-contacting parts are made of stainless steel with PTFE-seals.
- Supplied with gas tight, R2" steel barrel internal thread connection.
- Electrostatic charge can be dissipated through the accessory antistatic set (please order separately).

Description	Immersion depth	PK Cat. No.
	mm	
Hand pump	600	1 9.001 349
Hand pump for tinplate canisters	600	1 6.237 176





5 Solvent pump foot operated

- for barrels up to 220L (fully adjustable)
- for dispensing ultrapure solvents
- solvent-wetted materials: Stainless steel and PTFE
- rigid angled tube or flexible tubing with stainless steel/PTFE stopcock
- electrostatic charge can be dissipated through the accessory antistatic set (please order separately)
- supplied with gas tight, R2" steel barrel internal thread connection

Description	Immersion depth mm	Flow rate L / min.	PK	Cat. No.
Foot pump with rigid angled tube	950	30	1	9.001 134
Foot pump with flexible tubing	950	30	1	6.236 800



6 Anti-static set

When dispensing combustible/explosive liquids pump, both dispensing and filling drum
Bürkle
involved in the process must be sufficiently earthed, in order to prevent ignition or
explosion through electrostatic discharges. Antistatic set, includes three colour-coded connecting cables with clamps,
supplied complete in plastic case.

Туре	PK	Cat. No.
Antistatic set	1	9.001 346



8. Liquid Handling Pumps/Drum pumps



1 2 3 Barrel pumps AccuOne and EnergyOne

Bürkle barrel pumps AccuOne and EnergyOne with the unique hybrid system ensure fast, flexible and convenient filling, whenever and wherever you want. The pumps are equipped with two different power supply systems:

Bürkle

AccuOne, driven by a high-performance rechargeable battery or EnergyOne, with a power cable for direct connection to mains electricity. Innovative new feature: The power supply units are interchangeable! The rechargeable battery or the power supply unit are fitted with a clip lock and are removable. They can be exchanged quickly and easily. Thus AccuOne can also be operated with the power supply cable unit and EnergyOne can be operated with the rechargeable battery. With a replacement rechargeable battery as an accessory, you never have to wait for charging. The drive can also be disconnected quickly and easily from the pump station with a clip lock. This makes it possible to use one drive for filling at several stationary pump stations. AccuOne and EnergyOne are designed for applications in which even very small amounts of liquid can be added to small containers with narrow openings. The TouchPanel is sealed against dust, dirt and water. By a foil Keyboard it can be used to regulate the flow rate continuously and precisely from 0.4l/min to 12 l/min. In addition to the discharge tube, a flexible discharge hose (1.2m) with nozzle (PVC, PP, V2A, FKM) is available as an option. The light and powerful pumps are made of high-quality materials, PP, PVDF and Hastelloy C, to ensure outstanding chemical resistance. This also makes them suitable for dispensing acids and bases. Please make note of detailed information related to chemical resistance!

AccuOne

Maximum pumping capacity
Weight
Discharge connection
Rechargeable battery capacity
Battery type
Voltage
Electrical charge
Parts in contact with media:
Shaft
Pump station
Seals

12l/min. 750g

3/4" up to 600l

Li-Ion

14.4V

1.5Ah

Hastelloy C

PP

12l/min.

580g

PTFE

EnergyOne

Maximum pumping capacity Weight

Discharge connection

Power supply via 230 V power supply unit, international plug adapter included with delivery.

Parts in contact with media:

Shaft Pump station

Seals

Hastelloy C

PTFE

Description	PK	Cat. No.
AccuOne with rechargeable battery, rigid discharge tube and charger, immersion pipe length 500mm	1	9.001 420
AccuOne with rechargeable battery, rigid discharge tube and charger, immersion pipe length 700mm	1	9.001 421
AccuOne with rechargeable battery, rigid discharge tube and charger, immersion pipe length 1000mm	1	9.001 422
EnergyOne with power supply unit and rigid discharge tube, immersion pipe length 500mm	1	9.001 423
EnergyOne with power supply unit and rigid discharge tube, immersion pipe length 700mm	1	9.001 424
EnergyOne with power supply unit and rigid discharge tube, immersion pipe length 1000mm	1	9.001 425



4 Accessories for AccuOne and EnergyOne		(NEW!)
		Bürkle
Description	PK	Cat. No.
Rechargeable battery without charger	1	9.001 426
Charger	1	9.001 427
Power supply unit incl. connector	1	9.001 428
Drive without rechargeable battery, power supply unit and pump station	1	9.001 429
Discharge tube	1	9.001 430
Discharge hose 1.2m with nozzle	1	9.001 431
Pump station with immersion pipe length 500mm	1	9.001 432
Pump station with immersion pipe length 700mm	1	9.001 433
Pump station with immersion pipe length 1000mm	1	9.001 434
Barrel screw connection, PP for R2" steel barrel internal thread	1	9.001 335
Drum screwthread connection 2", counternut	1	9.001 347
Barrel plug, PVC for openings from 40 to 70mm diameter	1	9.001 336
Barrel screw connection, PP for Mauser 2", coarse internal thread	1	9.001 337
Barrel screw connection, PP for Tri-Sure®, coarse internal thread	1	9.001 338

8. Liquid Handling Pumps/Drum pumps

Drum pumps GLP 25

GLP 25 is your ideal helper for clean and safe liquid transfer from small containers and Grün-Pumpen drums up to 220litres. Various media such as undiluted acids and bases, dies, emulsions, dispersions and low-viscosity liquids can be measured out without any problems. Wetted materials are PP, stainless steel and Viton®. The pump is therefore additionally media resistant against aggressive liquids. Driveshaft made from stainless steel. Delivery rates from 1 to 20 l/min adjustable. Pump Set supplied with: motor, pump unit, PP, ¾" dia. inlet tubing (length 500, 700 or 1000mm), PP discharge tubing, 250mm long and adapter for drum necks of 40 to 58mm.



Description	Length	PK	Cat. No.
	mm		
Pump set	500	1	9.001 410
Pump set	700	1	9.001 411
Pump set	1000	1	9.001 412

2 3 Accessories for drum pumps GLP 25

		Grün-Pumpen
Description	(C) P	K Cat. No.
Motor for all pump units		1 9.001 400
Pump unit with inlet tubing length 500mm, incl. discharge tube		1 9.001 401
Pump unit with inlet tubing length 700mm, incl. discharge tube		1 9.001 402
Pump unit with inlet tubing length 1000mm, incl. discharge tube	KA('O')	1 9.001 403
Discharge tube PP, length 25cm		1 9.001 404
Adapter PP, diam. 65 to 70mm		1 9.001 405
Nozzle PP, reinforced PVC outlet tubing 1.5m, DN19		1 9.001 406





4 Drum pumps, mains-powered

Lightweight and powerful pump for transferring small amounts of aqueous liquids up to 300 mPas from cans and drums with infinitely variable speed controller.

- Motor 230V, 200W (IP 24)
- Seal less pump tube
- Suitable accessory flow meter required
- Pump with tubing connection

Two options:

- Polypropylene version for acids and alkalis
- Stainless steel version for low-viscosity lubricants

Available as a set (9.880 310-9.880 315) with 1.5m PVC tubing, nozzle in polypropylene, wall bracket



Туре	Material	Immersion depth	Flow rate	Immersion tube diam.	Delivery head	PK	Cat. No.
		mm	I / min.	mm	mWS		
Pump	PP	500	75	32	7.0	1	9.880 300
Pump	PP	700	75	32	7.0	1	9.880 301
Pump	PP	1000	75	32	7.0	1	9.880 302
Pump	stainless steel	500	68	28	6.5	1	9.880 303
Pump	stainless steel	700	68	28	6.5	1	9.880 304
Pump	stainless steel	1000	68	28	6.5	1	9.880 305
Pump set	PP	500	75	32	7.0	1	9.880 310
Pump set	PP	700	75	32	7.0	1	9.880 311
Pump set	PP	1000	75	32	7.0	1	9.880 312
Pump set	stainless steel	500	68	28	6.5	1	9.880 313
Pump set	stainless steel	700	68	28	6.5	1	9.880 314
Pump set	stainless steel	1000	68	28	6.5	1	9.880 315

8. Liquid Handling

Pumps/Drum pumps-Peristaltic pumps



9.880 360

Horizontal centrifugal pumps, magnetically coupled

sealed no leaks can occur. The use of high performance,

These new magnetic drive pumps are designed for pumping acids, bases, mixtures of acids and bases, solvents, photochemicals into alkali stripping baths, galvanic baths, as well as radioactive, sterile, expensive or highly corrosive liquids. The pumps are sealless. The impeller is driven by the magnetic force of the outer magnets, therefore no mechanical seal is required. As the pump housing is hermetically

permanent magnets, ensures high transmission forces even at elevated temperatures.

- viscosity up to 20 mPas
- pump complete with flanged-to motor

Magnetic drive pump 15 Watt: Motor 230V, material PP (fibre-glass reinforced), stainless steel (shaft), Viton® (O-ring), tubing connection 14mm

Magnetic drive pump 29 Watt: Motor 230V, material PP (fibre-glass reinforced), ceramics (shaft), Rulon (guide bearing), Viton® (O-ring), suction/discharge G ¾" OT (BSP)



9.880 361

Description	Flow rate L / min.	Delivery head mWS	0.0	PK Cat. No.
15 Watt, without thread	12	2.0		1 9.880 360 1
29 Watt, with ¾" outer thread	24	3.0		1 9.880 361 2



3 Laboratory peristaltic pumps, PLP

Compact laboratory peristaltic pumps with stepless, adjustable flow rate, pump rotor, two compression and four guide rollers. Changing pump tubing is easy, no tools or other aids are required. For 220V 50Hz a.c. supplies.

Dülabo Laborgeräte

Dülabo Laborgeräte

Туре	Flow	Weight	PK	Cat. No.
	rate			
	ml/min.	g		
PLP 33	7 - 33	1300	1	9.700 420
PLP 66	17 - 66	1300	1	9.700 421
PLP 330	66 - 400	1300	1	9.700 422
PLP 1000	250 - 1000	1440	1	9.700 423





4 Peristaltic Multichannel Pump PLP 380

Flow rates from 0.0002 to 380 ml/min. The speed can be adjusted manually or automatically through optional external control. Easy to operate.

- Accepts various pump heads
- Prime key for fast filling and emptying
- Adjust speed manually or automatically through optional external control
- Memory function, storing the running parameters automatically
- Membrane keypad, easy to operate
- Good performance and low price

Specifications:

Speed: 0.1 to 100rpm, reversible

Speed precision: 0.1rpm

Speed control: Membrane keypad

Display: 3-digit LED displays current rpm

Communication interface: RS485

Power supply: 90 bis 260 V_{ac} 50/ 60 Hz

Power consumption: < 30 W
Operating condition: 0 to 40°C
Relative humidity: < 80%
Dimensions (L x W x H in mm): 232 x 142 x 149

Drive weight (without Pump Head): 2.3kg IP rating: IP 31

Туре	Description	Flow rate	PK	Cat. No.
		ml/min.		
PLP 380	Peristaltic pump	0.00025 - 380	1	9.700 430

8. Liquid Handling Pumps/Peristaltic pumps

Peristaltic Pump PLP 6000

Easy to operate. DC brushless motor and close loop control integrate circuit.

It features big torque, small vibration, high efficiency and non maintenance.

Flow rates from 4.2 to 6000 ml/min. The speed can be adjusted manually or automatically through optional external control.

- Accepts various pump heads
- Prime key for fast filling and emptying
- Adjust speed manually or automatically through optional external control
- Memory function, storing the running parameters automatically
- High torque grants the use of double channel pump heads
- Easy to operate through start/stop switch and rotary encoded switch for speed control
- Good performance and low price

Specifications

Speed:60 to 600rpmSpeed precision: $\pm 1\%$ Resolution:1rpmTorque:>=1.60 Nm

Speed control: Start/stop switch and rotary encoded switch

Display: 3-digit LED displays current rpm

Communication interface: RS485

Power supply: 176 to 264 V_{ac} 50/ 60 Hz

 $\begin{array}{lll} \mbox{Power consumption:} & < 200 \ \mbox{W} \\ \mbox{Operating condition:} & 0 \ \mbox{to} \ \ 40 \ \mbox{°C} \\ \mbox{Relative humidity:} & < 80 \ \mbox{$\%$} \\ \mbox{Dimensions (L x W x H in mm):} & 285 \ \mbox{x 207 x 180} \\ \end{array}$

Drive weight (without Pump Head): 5.2kg IP rating: IP 31

Туре	Description	Flov	N			PK	Cat. No.
		rate	e				
		ml/min	1.		5		
PLP 6000	Peristaltic pump	4.2 - 6000	0			1	9.700 433

Pump Heads for PLP 380, PLP 2000 and PLP 6000

Dülabo Laborgeräte

Туре	Flow	Max.	Rollers	Channels	Weight	V	For Type	PK	Cat. No.
	rate	speed							
	L / min.	rpm			kg				
PPH 103	2200	600	3	1	0.40		PLP 380, PLP 380 multi, PLP 2200, PLP 6000	1	9.700 435
PPH 303	1600	600	3	1	0.35		PLP 380, PLP 380 multi, PLP 2200, PLP 6000	1	9.700 436
PPH 5061	48	100	6	1	0.21		PLP 380	1	9.700 437
PPH 5062	48	100	6	2	0.27		PLP 380, PLP 380 multi	1	9.700 438
PPH 603	6000	600	3	1	0.79		PLP 6000	1	9.700 442
PPH 7042	1800	600	4	2	0.82		PLP 6000	1	9.700 443

Flow rate PLP 380

Dülabo Laborgeräte

Pump Head	Channels	Flow rate per channel ml/min
PPH 103	1	0.07 - 380
PPH 303	1	1.7 - 150
PPH 5061	1	0.00025 - 48
PPH 5062	2	0.00025 - 48

Flow rate PLP 6000

Dülabo Laborgeräte

Pump Head	Channels	Flow rate per channel ml/min
PPH 103	1	4.2 - 2200
PPH 303	1	100 - 1600
PPH 603	1	200 - 6000
PPH 7042	2	50 - 1800

Dülabo Laborgeräte

Ismatec

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8. Liquid Handling Pumps/Peristaltic pumps

1



1 Compact peristaltic pumps MS-CA

Flow rate 0.021 to 26ml/min. Simple Click'n'go mini tubing assembly cartridges.

- 3-stop colour-coded tubing
- fixed-speed motor
- Dimensions MS-CA2 (WxDxH): 88 x 135 x 125mm
- Dimensions MS-CA4 (W x D x H): 88 x 135 x 145mm

Туре	Rotation speed rpm	Flow rate ml/min.	Channels	Rollers		PK	Cat. No.
MS-CA 2/620	20	0.028 - 8.5	2	6		1	9.828 142
MS-CA 2/660	60	0.083 - 26.0	2	6		1	9.828 146
MS-CA 2/640	40	0.6 - 17	2	6		1	9.828 144
MS-CA 2/840	40	0.043 - 14	2	8		1	9.828 154
MS-CA 2/820	20	0.021 - 7.1	2	8		1	9.828 152
MS-CA 2/860	60	0.064 - 21.0	2	8	IC O	1	9.828 156

2



Pumps, peristaltic, Reglo-Analogue

For high precision pumping in the ml-range and below (0.002 to 68ml/min). Simple Click'n'go mini tubing assembly cartridges. With remote control for on/off and speed.

- speed setting: 2-99%, resolution: 1%
- power consumption 20W
- overload control
- analogue interface
- for 0.13 to 3.17mm tubing i.d.
- 3-stop, colour-coded tubing

Dimensions (WxDxH)

2-channel versions: 100 x 178 x 143 mm 4-channel versions: 100 x 190 x 143 mm

Туре	Rotation speed	rate	Channels	Rollers	PK	Cat. No.
	rpm	ml/min.				
MS-2/6-160	3.2 - 160	0.005 - 68	2	6	1	9.828 470
MS-2/8-160	3.2 - 160	0.004 - 57	2	8	1	9.828 471
MS-2/12-160	3.2 - 160	0.003 - 38	2	12	1	9.828 474
MS-4/6-100	2,0 - 100	0.003 - 43	4	6	1	9.828 472
MS-4/8-100	2,0 - 100	0.003 - 35	4	8	1	9.828 473
MS-4/12-100	2,0 - 100	0.002 - 24	4	12	1	9.828 475





3 Pumps, peristaltic, Reglo-Digital

For high precision pumping in the ml-range and below (0.001 to 68ml/min).

Simple Click'n'go mini tubing assembly cartridges.

Microprocessor controlled, with RS232 interface and can be calibrated. Programmable flow rates, dispensing volume and pause times. Digital LED display. For: 0.13 to 3.17mm i.d. tubing.

Programmable functions:

- ml/min
- the drive speed (rpm)
- drip-free by rolling back steps
- calibration: ml/min (flow rate); ml (volume)
- power ON/OFF

Dosing by:

- volume ml
- volume/unit time
- metering (0.1 to 999 hours)
- interval metering with preset pause
- selectable number of dispensing

Туре	Rotation speed rpm	Flow rate ml/min.	Inputs	Rollers	PK	Cat. No.
MS-2/6-160	1.6 - 160	0.003 - 68	2	6	1	9.828 480
MS-2/8-160	1.6 - 160	0.002 - 57	2	8	1	9.828 481
MS-2/12-160	1.6 - 160	0.002 - 38	2	12	1	9.828 484
MS-4/6-100	1.0 - 100	0.002 - 43	4	6	1	9.828 482
MS-4/8-100	1.0 - 100	0.002 - 35	4	8	1	9.828 483
MS-4/12-100	1.0 - 100	0.001 - 24	4	12	1	9.828 485

Pumps, peristaltic, Ecoline

NEW! Ismatec

Ismatec

Flow rate 0.003 to 5400 ml/min. Robust and economical. Stainless steel housing. Easy handling. For all applications in laboratory and industry.

Ecoline VC-280:

Economical, basic, single-channel drive model for flow rates up to 5.4 l/min. with variable speed.

Ecoline VC-360 and VC380:

1-channel tubing pumps, microprocessor controlled. With 2-digit potentiometer, scaled 1 to 99% and analogue interface for Start/Stop, rotation direction, speed control (0 to 5 or 0 to 10V/0 to 20 or 4 to 20mA).

Ecoline VC-drive without pump heads:

- combinable with Easy-Load®, MS/CA 8-6 and MS/CA 4-12 pumpheads

Туре	Channels	Rollers	Flow rate	To fit tubing		PK Cat. No.
			ml / min.	mm		
VC-280 II	1	2	1.7 - 5400	1.6 - 11.1		1 9.828 513
VC-360 II	1	3	0.25 - 1300	0.8 - 6.4		1 9.828 514 1
VC-380 II	1	3	1.6 - 5000	1.6 - 11.1		1 9.828 515 2
Ecoline VC-drive			0.23 - 5400	-		1 9.828 516
Easy-Load®	1	3	0.23 - 1600	0.8 - 8.0		1 9.828 391
MS/CA 8-6	8	6	0.005 - 150	0.13 - 3.17	. () // ()	1 9.828 376
MS/CA4-12	4	12	0.003 - 83	0.13 - 3.17		1 9.828 378

3 Peristaltic pumps, Reglo ICC

Independent 3-Channel Control Pump

- Increased efficiency

- Control of complex pump applications with only one pump

- Controlled by computer or directly through the control panel on the pump
- Continuous pumping and precise dosing
- Flexible bi-directional flow direction in each channel
- Self-priming
- Especially for viscous or foaming liquids, also when containing particles or live cells
- Contamination-free pumping even under sterile conditions

Specifications:

Flow rate: 0.002 to 35ml/min
Differential Pressure: Max. 1.0 bar (14.5 psi)

Туре		7	1	PK	(Cat. No.
Regio ICC						9 828 487



8. Liquid Handling **Pumps/Peristaltic pumps**

Pumps, peristaltic, multichannel, precision, IPC, IPC-N-IP and IP-N

IP and IP-N series, without dispensing features

- Microprocessor controlled

- very precise pumping

IPC and IPC-N series, with dispensing features

- Microprocessor controlled

- very precise pumping

- with "standby-mode" (prevents draining the tubing line e.g. overnight)

- with dispensing and calibration functions

IPC-N and **IP-N** series

- 4, 8, 12, 16 or 24 channels

- 8 actively driven stainless steel rollers

- Transparent keyboard and LED-display

- Click 'n 'go cassettes providing defined and repeatable occlusion conditions.

- different tube sizes can be inserted in each channel.

- 2 Stopper tubes

- Differential pressure: 1.0 bar

Specifications IPC and IPC-N:

Motor type: d.c. motor

Flow rates: IPC: 0.4 up to 44 l/min

IPC-N: 0.11 up to 11.25 1/min

1 to 100 %, resolution 0.1 % Speed range:

in µl/min to ml/min

Input: 30W

Supply requirements: 230V 50Hz, 115V 60Hz (selectable)

Protection class: IP 30

Specifications IP and IP-N:

Speed range:

d.c. motor Motor type:

IP: 0.4 up to 44 l/min Flow rates:

IP-N: 0.11 up to 11.25 l/min 1 to 100 %, resolution 0.1 % IP; rpm, resolution 0.1 l/min

IP-N: rpm, resolution 0.03 l/min

30W

Supply requirements: 230V 50Hz, 115V 60Hz a.c. (selectable)

Protection class:

Туре	Flow	Inputs	Dimensions	PK	Cat. No.
	rate		(W x D x H)		
	ml/min.		mm		
IP-4	0.002 - 44	4	175 x 180 x 130	1	9.828 346
IP-8	0.002 - 44	8	175 x 220 x 130	1	9.828 347
IP-12	0.002 - 44	12	175 x 260 x 130	1	9.828 348
IP-16	0.002 - 44	16	175 x 300 x 130	1	9.828 349
IP-24	0.002 - 44	24	175 x 380 x 130	1	9.828 350
IP-N-4	0.0004 - 11	4	175 x 180 x 130	1	9.828 356
IP-N-8	0.0004 - 11	8	175 x 220 x 130	1	9.828 357
IP-N-12	0.0004 - 11	12	175 x 260 x 130	1	9.828 358
IP-N-16	0.0004 - 11	16	175 x 300 x 130	1	9.828 360
IP-N-24	0.0004 - 11	24	175 x 380 x 130	1	9.828 370
Foot switch T-51-S	-	-	-	1	9.828 359
IPC-4	0.002 - 44	4	175 x 180 x 130	1	9.828 351
IPC-8	0.002 - 44	8	175 x 220 x 130	1	9.828 352
IPC-12	0.002 - 44	12	175 x 260 x 130	1	9.828 353
IPC-16	0.002 - 44	16	175 x 300 x 130	1	9.828 354
IPC-24	0.002 - 44	24	175 x 380 x 130	1	9.828 355
IPC-N-4	0.0004 - 11	4	175 x 180 x 130	1	9.828 361
IPC-N-8	0.0004 - 11	8	175 x 220 x 130	1	9.828 362
IPC-N-12	0.0004 - 11	12	175 x 260 x 130	1	9.828 363
IPC-N-16	0.0004 - 11	16	175 x 300 x 130	1	9.828 364
IPC-N-24	0.0004 - 11	24	175 x 380 x 130	1	9.828 365

E & OE. 958 www.wenk-labtec.com

Ismatec

Pump, peristaltic, Flowmaster FMT 300

Offers high flow rates from 37ml/min to 13l/min for industrial applications.

Ismatec

Protection level IP65, sterile tube insertion without priming. Simple detachable pumphead makes cleaning easy, no tools required. Dispensing in intervals possible.

Specifications

Pumping speed: 5 to 500rpm, accuracy 0.1rpm, waterproof keypad, LED readout

Power consumption: 500W

Power supply: 115/230V 60Hz a.c., switchable

Protection: IP 65

Dimensions (HxWxD): 220x500x262mm

Weight: 26kg

Flowrate: 37 ml/min - 13l/min

Pumphead: Comprises a 3-roller pumphead for tubing with a thickness of 3.2 mm

Type PK Cat. No.

Flowmaster FMT 300 1 9.828 541

Peristaltic pump drives, BVP-Standard/BVP-Process

Can be combined with over 20 pump-heads for flow rates of 0.01 to 3700ml/min (depending on pump-head).

For the continuous pumping of liquids and suspensions with up to 60 % solids content according to capacity or time.

Analogue interface for Start/Stop, rotation direction, autostart. LED display on BVP Process.

Stainless steel housing, dust-tight and water-proof. Dimensions (W X D x H): 155 x 220 x 260mm (without pump-head).

Power supply: 230V/50Hz, 115V/60Hz

Specifications: BVP Standard

- speed 2.4 to 240 rpm

- speed setting: 1-99.9%, resolution 0.1%

- protection rating: IP30

- weight: 5.7kg

Specifications: BVP Process

- speed 1 to 240 rpm

- speed setting: rpm, resolution: 0.1 rpm

- protection rating: IP65

- weight: 6.9kg

			_			
Туре	Flow rate	K			PK	Cat. N
	ml / min.		7			
BVP-Standard	0.003 - 3700				1	9.828
BVP-Process	0.001 - 3700				1	9.828







Ismatec

8. Liquid Handling **Pumps/Peristaltic pumps**





Peristaltic pump drives, MCP standard/MCP process

Can be combined with over 20 pumpheads for flow rates of 0.01 to 3700ml/min (depending on pump-head).

Ismatec

Combined peristaltic pump and precise dispenser. Microprocessor controlled, with precise controlled rotation speed and metering unit for 1 to 24 pump channels. The speed (1rpm to 240rpm) is adjustable to 0.1rpm, key-pad with LED-display, programmable. Different dosing modes supply very exact and reproducible results. With RS232 interface, tubing valve operation, dosing handle and foot switch. Can be used for sterile dosing up to 135°C (with adequate tubing). Dimensions (WxDxH): 155mm x 220mm x 260 mm (without pumphead).

Programmable functions:

- ml/min
- drive speed
- drop-free (roller reverse step)
- calibration ml/min in ml (volume)
- drive unit on/off

Dosing:

- volume ml
- volume/time unit
- dosing time (0.1 to 999 h)

Additional functions MCP process:

- progammable sequences
- dust-tight and water-proof

Specifications	MCP-Process
Motor type:	d.c. motor
Speed:	1 to 240rpm
Speed setting:	rpm, resolution 0.1rpm
Flow rate setting:	ml/min, ml/min, l/min
Power consumption:	100W
Davisar arranteri	100 to 2201/ 50 to 6011

100 to 230V, 50 to 60Hz a.c. Power supply:

IP65 Protection rating:

6.9kg (without pumphead) Weight:

MCP-Standard

Motor type: d.c. motor Speed: 1 to 240rpm Speed setting: rpm, resolution 0.1rpm Flow rate setting: ml/min, ml/min, l/min

Power consumption: 100W

Power supply: 230V 50Hz; 115V, 60Hz a.c. selectable

IP30 Protection rating:

Weight: 6.4kg (without pumphead)

Туре	PK	Cat. No.
MCP-Process	1	9.828 510
MCP-Standard	1	9.828 367





Single-channel-pumpheads for peristaltic pumps BVP-Standard (-Process) and MCP-Standard (-Process) drive units

Ismatec

Pumphead type	Inputs	Flow rate	Rollers	PK	Cat. No.
		ml / min.			
7518-10 Easy-Load®*	1	0.07 - 1100	3	1	9.828 391
Easy-Load removable plate	-	-		1	9.828 530
PTFE tubing pumphead*	1	0.07 - 45	6	1	9.828 395

^{*} Removable plate 9.828 530 is required for operation.

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Single-channel pumpheads for BVP-Standard (-Process) and MCP-Standard (-Process) peristaltic pump drive units

For tubing with max. wall thickness: 1.6mm

Ismatec

Pumphead type	Flow rate	Inputs	Rollers	PK	Cat. No.
	ml / min.				
360	0.072 - 530	1	3	1	9.828 371
380	0.44 - 2800	1	3	1	9.828 372
380 AD**	0.41 - 3600	1	3	1	9.828 373
Pro 280	0.49 - 3700	1	2	1	9.828 520
Pro 380	0.45 - 3400	1	3	1	9.828 521
Pro 281*	3.6 - 3100	1	2	1	9.828 394
Pro 381*	3.3 - 2900	1	3	1	9.828 396
* Tubing wall thi	ckness 2.4 mm				



Multichannel pumpheads for BVP-Standard/Process and MCP-Standard/Process drive units

Ismatec

Pumphead type	Flow rate	Inputs	Rollers	РК	Cat. No.
SB removable plate	-	-	6	1	9.828 533
SB-3V*	0.09 - 530	3	6	1	9.828 216
SB-2V*	1.1 - 1100	2	6	1	9.828 215



Multichannel pumpheads for BVP-Standard/Process and MCP-Standard/Process drive units

			AL		
Pumphead	Flow rate	Inputs	Rollers	PK	Cat. No.
type					
	ml / min.				
CA4	0.002 - 230	4	8	1	9.828 379
CA8	0.002 - 230	8	8	1	9.828 380
CA12	0.002 - 230	12	8	1	9.828 381
MS/CA8-6*	0.002 - 100	8	6	1	9.828 375
MS/CA4-12**	0.001 - 57	4	12	1	9.828 377
MS/CA8 cartridge block	0.002 - 100	8	6	1	9.828 376
MS/CA4-12 cartridge block	0.001 - 57	4	12	1	9.828 378
*extendible to 24 channels	_				







Ismatec

^{**}Pump head for tubing wall thickness of 1.6 to 2.4 mm

^{*} Removable plate 9.828 533 is required for operation.

8. Liquid Handling

Pumps/Peristaltic pumps-Dosing pumps



6.258 629



6.256 566

Peristaltic pump rotarus® standard and volume



Peristaltic pumps for continuous delivery in speed ranges from 0.2 to 100 revolutions per minute (rotarus® standard 50/50i) and 5 to 500 revolutions per minute (rotarus® Volume 100/100i).

rotarus® standard 50 is the powerful basic model in the peristaltic pump series. The cost-effective, precise delivery pump for small delivery volumes and high viscosities is ideal for flexible applications, thanks to the use of diverse pump heads and hoses. The control panel on the housing enables simple and rapid configuration of the most important parameters, and the speed can be programmed directly on the unit. Performance class with 50 Watt ensures exact delivery in speed ranges from 0.2 to 100 revolutions per minute.

rotarus® volume 100 is a comfortable, rapid dispensing pump for high flow rates with control options for velocity, flow rate, dispensing duration and total volume. Variable cycles and graduated pump speeds can be controlled reliably and precisely. Performance class with 100 Watt ensures rapid delivery in speed ranges from 5 to 500 revolutions per minute. RFID technology is used in the rotarus® volume to automatically detect the pump head and hose. The model also has automatic blockage detection and hose rupture monitoring as well as a method memory. In addition, rotarus® volume is equipped with an external control unit with touchscreen.

Overview of details:

- Housings with a white powder coating (rotarus® 50/100; protection class IP54) or inox stainless steel design (rotarus® 50i/100i, protection class IP65).
- Pump head connection technology for rapid handling.
- For pump drive a choice of two different motors with 50 or 100 watt is available to suit the application, flow rate and fluid.
- Changeable pump heads, single and multichannel design.
- Rapid tool-free changing of pump heads.
- Control panel located directly on pump housing.
- Calibratable.
- Operation with 24 V DC.
- USB and RS232 interface for PC link using interface (available as accessory).
- Pump heads from other manufacturers can be fitted without difficulty using an adapter.
- Comprehensive accessory range.

Supplied with:

- rotarus® standard 50/50i, external power supply unit, junction cable for EU, UK, US.
- rotarus® volume 100/100i, external power supply unit, junction cable for EU, UK, US, control unit.

Туре		PK Cat. No.
standard 50		1 6.258 629 1
standard 50i	A Z/	1 6.258 630
volume 100		1 6.257 247
volume 100i		1 6.256 566 2

Rotarus® pump heads



Hirschmann

Туре	Description	Channe	els	Rollers	PK	Cat. No.
PK 10-16	Single channel pump head for tube with WT 1.6mm		1	3	1	9.880 380
PK 10-24	Single channel pump head for tube with WT 2.4mm		1	3	1	9.880 381
MKF 4-8	4 Channel pump head for stopper tubes		4	8	1	9.880 382
MKF 8-4	8 Channel pump head for stopper tubes		8	4	1	9.880 383
MKF 12-8	12 Channel pump head for stopper tubes		12	8	1	9.880 384



Laboratory syringe pump SP1090 with controller



Dülabo Laborgeräte

SP1090:

- Single-channel micro syringe pump with two flow directions
- Controller is separated from the drive
- For standard syringes from 5 ul 60 ml
- Flow rates of 0.138 ml/min 52.94 ml/min
- Speed of 7.94 um/min 79.4 mm/min
- 100 240 VAC or 12 VDC

TJS:

- Operated via a keypad and rotary encoder
- Easy syringe selection using an included syringe list or custom syringe input
- Amount, flow rate or feed rate can be displayed
- LCD display, 128 x 64
- RS485 interface
- 100 240 VAC or 12 VDC

Description	Dimensions (W x D x H)	Weight	PK Cat. No.
	mm	kg	
Syringe pump 1090	100 x 245 x 95	1.3	1 6.266 993 3
Controller TJS	108 x 170 x 65	0.5	1 6.266 994 4

6.266 994

8. Liquid Handling Pumps/Dosing pumps

6.267 707

6.267 708

- umpo, soomig pum

Syringe pumps Legato®

(NEW!)

Harvard Bioscience

The Legato® series syringe pumps provide the smoothest most accurate flow available. These innovative syringe pumps, offer unparalleled ease of use through the high resolution touch screen user interface. The intuitive touch screen enables the user to quickly create configurations and recall them for ease of use.

All of the pump operating parameters are presented to the user on an easy to view run screen. Single syringe, single remote syringe, dual syringe and multirack configurations are available along with the infuse only or infuse/withdraw/continuous operation (model dependent).

- Single and dual syringe infuse, infuse withdraw & continuous models
- Holds syringe sizes from 0.5ul to 140 ml (Model dependent)
- High resolution, chemically resistant colour touch screen display
- Flow rates down to the picoliter/min (Model dependent)
- Built in syringe selection table
- Programmable interface without the need for a PC (Model dependent)
- USB/RS-232/TTL Interfaces for external control (RS232 available on Legato® 200 Series Only)
- Rugged construction with cold rolled steel chassis
- Integrated spill dam

Applications: Electrospinning, Flow Cytometry, Microfluidics, Mass Spec, Drug Discovery, Organic Synthesis, Nanofluidics, Stereotaxic Injections

Legato® 100 Single Syringe Infusion Pump

Accommodates 1 syringe from 0.5µl to 60ml. Entry level pump in the Legato® series. This pump is ideal for applications where a single syringe is used. It allows a wide flow range from 1.26pl/min up to 88.28ml/min.

Legato® 101 Dual Syringe Nanoliter Pump

Accommodates 2 syringes from 0.5µl to 10ml. This infusion only pump is ideal for surface plasma resonance, organic synthesis and other applications where dual syringes are required with small volumes under 10ml. The Minimum flow rate 1.26pl/min for a 0.5µl syringe up to 25.99ml/min.

Legato® 110 Single Syringe Infusion/Withdraw Pump

Accommodates 1 syringe from 0.5µl to 60ml. The Legato® 110 is based on the Legato® 100. It offers infuse/withdraw flow control and programmability for up to two multi-step programs of 50 steps each. This pump is ideal for more complex multi-step dosing and has multi-mode operation including infusion only, withdrawal only, infusion and withdrawal and withdrawal/infusion modes. It allows a wide flow range from 1.26pl/min up to 88.28ml/min.

Legato® 200 Dual Syringe Infusion Pump

Accommodates 1 syringe from 0.5µl to 140ml. This unit supports infuse only. User definable flow rates with selectable target volumes or time values to control the total infusion volume. It allows a wide flow range from 3.06pl/min up to 105ml/min.

Legato® 210 Dual Syringe Infuse/Withdraw Pump

Accommodates 2 syringes from 0.5µl to 140ml. This unit supports infuse only, withdraw only, infuse/withdraw, withdraw/infuse and continuous mode. User defined flow rates with selectable target volumes. It allows a wide flow range from 3.06pl/min up to 105ml/min.

Description	Dimensions (W x D x H)	Weight	PK Cat. No.
	mm	kg	
Legato® 100	226 x 191 x 150	2.7	1 6.267 706
Legato® 101	226 x 191 x 150	2.7	1 6.267 707 1
Legato® 110	226 x 191 x 150	2.7	1 6.267 708 2
Legato® 200	889 x 254 x 279	5.0	1 6.267 701
Legato® 210	889 v 254 v 279	5.0	1 6 267 702

Multi-Rack for syringe pumps Legato® 200 and Legato® 210



Modular syringe racks can be purchased to create a multichannel syringe pump. These racks will work with the Legato $^\circ$ 200 or Legato $^\circ$ 210 only. All of them could be for infuse only as well.

Harvard Bioscience

Small Syringe Multi-Rack: The small syringe multi-rack will accommodate up to six 30ml to 60ml syringes or up to ten 0.5µl to 20ml syringes. For Infuse/Withdraw applications.

Large Syringe Multi-Rack: The large syringe multi-rack will accommodate up to four 60ml to 140ml plastic syringes. For Infuse/Withdraw applications.

Microliter Syringe Multi-Rack: The microliter syringe multi-rack will accommodate up to four 0.5µl to 10ml syringes. For Infuse/Withdraw applications.



6.267 704

Description	PK Cat. No.
Small Syringe Multi-Rack	1 6.267 703
Large Syringe Multi-Rack	1 6.267 704 3
Microliter Syringe Multi-Rack	1 6.267 705



8. Liquid Handling Pumps/Dosing pumps

Diaphragm liquid pumps LIQUIPORT®

The LIQUIPORT® diaphragm liquid pumps of the NF 100/1.100_.18 S series reliably pump neutral and aggressive liquids. A knob with LED makes it easy to vary the pumping capacity. These pumps work quietly and with low vibrations.

- acid, alkali, solvent resistant
- self-priming
- dry running
- maintenance-free
- splashproof (IP65 level)
- flow rate manually adjustable, LED display
- standby mode
- maximum pressure limitation
- quiet pumping, low vibrations.

Pump head material:

KT = PP TT = PVDF

Membrane: PTFE coated

Valves: FFPM

Specifications

Suction head: 3 mWS

Pressure head: 10 mWS

Ambient temp.: +5 to +40°C

Liquid temp.: +5 to +80°C

Supply requirements: 100-230V, 50/60Hz



KNF

Туре	Flow	Int.	Rating	Weight	Width	Length	Height	PK	Cat. No.
	rate	diam.							
	I / min.	mm	W	kg	mm	mm	mm		
NF 100 KT.18 S	0.2 to 1.3	8	12	1.0	99	130	177	1	9.880 597
NF 100 TT.18 S	0.2 to 1.3	8	12	1.0	99	130	177	1	9.880 598
NF 300 KT.18 S	0.5 to 3.0	12	24	1.5	104	160	190	1	9.880 599
NF 300 TT.18 S	0.5 to 3.0	12	24	1.5	104	160	190	1	9.880 600

Further designs available on request.

we can supply this manufacturer's whole product range!





Pumps/Dosing pumps

1

Chemically-resistant Diaphragm Dosing Pumps SIMDOS®

NEWI

KNF

The chemically-resistant diaphragm pumps SIMDOS 02 and SIMDOS 10 are the ideal solution to transfer liquids accurately and reliably. With a repeatability of $\pm 1\%$, this is true for small volumes, too. The pump head of SIMDOS 02 and SIMDOS 10 is available in PP, PVDF and PTFE. The valve material is FFKM, the diaphragm is PTFE covered.

The advantages of SIMDOS 02 and SIMDOS 10:

- Simple and intuitive operation, easy calibration
- Adaptable to fluid characteristics
- Self priming and dry-running safe
- Analog and impulse control (RC)
- Splashproof IP65
- Small footprint

Control versions:

S - Version

- Manual operation

RC - Version:

- Start/Stop through logic control (TTL)
- Reset/Prime through logic control (TTL)
- Output signal fault alarm
- Cable for external control included
- RS 232 port available on request

Specifications

SIMDOS 02/SIMDOS 10

Max. pressure: 6bar

Power supply: 100 - 240V/50 - 60Hz

Allowed ambient temperature: +5 to +40°C
Allowed liquid temperature: +5 to +80°C
Maximum viscosity: 150cSt
Repeatability: ±1%
Power consumption: 10W/24W
Protection class: IP65

Dimensions: 140 x 87 x 130mm/150 x 93 x 144mm

Weight: 0.9kg

Hydraulic connection

SIMDOS 02: UNF 1/4"-28

SIMDOS 10: Tubing 4mm ID/6mm OD

Туре	Head	Control	Flow rate	Dosing volume	Max. suction height	PK	Cat. No.
FEM 1.02 KT.18 S	PP	S-Version (manual)	30µl - 20ml/min	30μl - 999 ml	2m	1	9.880 565
FEM 1.02 TT.18 S	PVDF	S-Version (manual)	30µl - 20ml/min	30µl - 999 ml	2m	1	9.880 567
FEM 1.02 FT.18 S	PTFE	S-Version (manual)	30µl - 20ml/min	30µl - 999 ml	2m	1	9.880 569
FEM 1.02 KT.18 RC	PP	RC-Version (man./extern)	30µl - 20ml/min	30µl - 999 ml	2m	1	9.880 566
FEM 1.02 TT.18 RC	PVDF	RC-Version (man./extern)	30µl - 20ml/min	30µl - 999 ml	2m	1	9.880 568
FEM 1.02 FT.18 RC	PTFE	RC-Version (man./extern)	30µl - 20ml/min	30µl - 999ml	2m	1	9.880 570
FEM 1.10 KT.18 S2	PP	S-Version (manual)	1ml - 100ml/min	1 - 999ml	3m	1	6.268 391
FEM 1.10 TT.18 S2	PVDF	S-Version (manual)	1ml - 100ml/min	1 -999ml	3m	1	6.268 393
FEM 1.10 FT.18 S2	PTFE	S-Version (manual)	1ml - 100ml/min	1 - 999ml	3m	1	6.268 389
FEM 1.10 KT.18 RC2	PP	RC-Version (man./extern)	1ml - 100ml/min	1 - 999ml	3m	1	6.268 392
FEM 1.10 FT.18 RC2	PTFE	RC-Version (man./extern)	1ml - 100ml/min	1 - 999ml	3m	1	6.268 390

The pump is also available with an RS 232 port on request (RCP).

2 Double diaphragm pumps, oil-free

Oil-free, air-operated, double diaphragm pumps are an ideal solution for handling
viscous, corrosive, abrasive and flammable liquids. The pumps are available in

Polypropylene (PP), PVDF and Nylon. The diaphragms, balls and valve seats are available in Geolast® and PTFE. Solids up to 1.6mm diameter can be pumped.

Specifications

Flow rate: 16L/min Suction lift dry: 6m

Operating pressure: min. 1.4 bar/max. 6.8 bar

Temperature max: 66°C Suction/ Discharge: 1/4" BSP female



Description	Material	Membrane	PK	Cat. No.
For liquids based on water, lubricant, mineral oil	PP	Geolast®	1	9.880 350
For corrosive liquids, inorganic alkalis and acids	PP	PTFE	1	9.880 351
For concentrated alkalis and acids with higher temperature	PVDF	PTFE	1	9.880 352
For solvents, paints, fuel	Nvlon	PTFE	1	9.880 353

8. Liquid Handling

Pumps/Gear pumps





9.828 308

Gear pump drives, MCP-Z-Standard, MCP-Z-Process



Flow rate 1 to 7241 ml/min (depending on pump-head). 2 drive units can be *Ismatec* combined with 20 interchangeable magnetically-coupled pumpheads. Flow rates of 1 to 7241ml/min. are attainable with pulse-free flow. Up to 5.6 bar differential pressure and 21 bar system pressure.

MCP-Z-Standard

Microprocessor controlled. Digital display of rotation speed, flow rate, dispensing volume or dispensing time. 4 programme memory and 6 programmable pumping or dispensing functions with calibration mode. Flow rates stored for 20 pumpheads. With RS232 and analogue interfaces.

MCP-Z-Process

Industrial process-adapted drive, dust and watertight, washdown (IP 65) capability through completely sealed stainless steel housing. PC programmed processes can be stored in the pump memory and operated without PC. Other specifications are as MCP-Z-Standard.

Specifications: MCP-Z Standard

- speed: 60-6000 min⁻¹
- speed setting: 1-99.9%, resolution 0.1%power supply: 230 V/50 Hz 115 V/60 Hz
- weight: 6.4 kg (without pump head)
- protection rating: IP 30

Specifications: MCP-Z Process

- speed: 60-6000 min-1
- speed setting: min⁻¹. resolution: 0.1 min⁻¹
- power supply: 100-230V/50-60Hz
- weight: 6.9 kg (without pump head)
- protection rating: IP 65



 Type
 PK
 Cat. No.

 MCP-Z-Standard
 1
 9.828 308 1

 MCP-Z-Process
 1
 9.828 309 2

 Spare magnet for MCP-Z-Standard
 1
 9.828 344

 Spare magnet for MCP-Z-Process
 1
 9.828 345

Please order two tubing connectors separately Tubing connectors - see Gear pump heads.

3



3 Gear pump drive BVP-Z



(NEW)

Ismatec

Flow rates of 1 to 7241ml/min. Motor speed: 60 to 6000 rpm, adjustable in 0.1% steps.

Up to 5.2 bar differential pressure and 21 bar system pressure,

Rotation speed adjustable via 2 or 3-digit, mechanical push-button potentiometer, with analogue interface and double overload protection. With magnet.

- Weight 5.7kg
- 155 x 220 x 260mm
- Supply requirements: 230V 50Hz, 150W

Туре	РК	Cat. No.
BVP-Z	1	9.828 307
Spare magnet for BVP-Z	1	9.828 344
Please order two tubing connectors separately. Tubing connectors - see Gear pump heads.		

Pumps, liquid, ceramic piston, MCP-CPF Process

Flow-rate from 0.025 to 2300 ml/min (depending of the pump head).

Ismatec

Operate on a valveless rotating piston principle with liquid pathway materials made of

sapphire-hard, chemically inert ceramic (99.7 % Al₂O₃). Ideal for chemically aggressive and viscous or crystallizing materials. Differential pressure up to 6.9 bar.

Industrial process-adapted drive, dust- and water-tight, with washdown (IP 65) capability due to completely sealed stainless steel housing. PC-programmed routines can be stored in the pump memory and run without needing a PC.

Specifications

Motor: d.c. motor Rotation speed: 10.0 to 1800 rpm. Speed resolution: 1rpm, 0.1 rpm selectable. Flowrate setting: μl/min, ml/min, l/min

100 W Power rating:

Overall (WxDxH): 155 x 220 x 260 mm (without pumphead)

Safety protection: IP 65

Weight: 6.9kg (without pumphead) Supply requirements: 100 to 230V a.c. 50/ 60 Hz

Туре	Flow rate	Width	Depth	Height	PK Cat. No.
	ml / min.	mm	mm	mm	
MCP-CPF process	0.025 - 2300	155	220	260	1 9.828 511
Reglo-CPF*	0.08 - 180	100	175	135	1 9.828 368

Gyro flask pumpheads for MCP-CPF-Process

Ismatec

Туре	Pump head	Working vol.	Flow rate	To fit tubing			PK	Cat. No.	
		μl	ml / min.	mm	AU				
RH00SKY-LF	steel SS316	2.5 - 25	0.025 - 45	i.d. 1.5			1	9.828 423	
RH00CKC-LF	ceramic	2.5 - 25	0.025 - 45	i.d. 1.5			1	9.828 422	
RH0CKC	ceramic	5 - 50	0.050 - 90	o.d. 6.4			1	9.828 420	
RH1CKC	ceramic	10 - 100	0.10 - 180	o.d. 6.4			1	9.828 421	
Alternative Gyro flask pumpheads RH and OP available on request!									



Gyro flask pumpheads for MCP-CPF Process pump drive

Ismatec

Туре	Pump head	Working vol.	Flow rate	To fit tubing	PK	Cat. No.
	ilcau	νοι. μΙ	ml / min.	mm		
QP.QO.SSY	Steel SS316	3.2 - 80	0.04 - 144	6.4	1	9.828 430
QP.Q2.CSC	Ceramic	28.8 - 720	0.29 - 1300	9.5	1	9.828 432
QP.Q3.CKC	Ceramic	51.2 - 1280	0.51 - 2300	12.7	1	9.828 433
QP.Q1.CSC.W*	Ceramic	12.8 - 320	0.13 - 576	9.5	1	9.828 434
QP.Q2.CSC.W*	Ceramic	28.8 - 720	0.29 - 1300	9.5	1	9.828 435
QP.Q1.CSC-WT**	Ceramic	12.8 - 320	0.13 - 576	9.5	1	9.828 424
QP.Q2.CSC-WT**	Ceramic	28.8 - 720	0.29 - 1300	9.5	1	9.828 425

*W - with rinsing inlet

**WT - with rinsing and thermostatic control inlet



