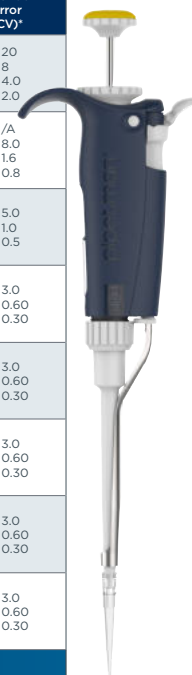


PIPETMAN® L SPECIFICATIONS

PIPETMAN® L SINGLE CHANNEL—VARIABLE VOLUME MODELS

Model	PIPETMAN® DIAMOND Tips		Part Number		Nominal Volume (µL)	Volume (µL)	Maximum Permissible Errors							
			With Stainless Steel Ejector	With Plastic Ejector			Gilson				ISO 8655-2 (Table 1)			
							Systematic Error (µL)	Random Error (µL)	Systematic Error (%)	Random Error (CV)*	Systematic Error (µL)	Random Error (µL)	Systematic Error (%)	Random Error (CV)*
P2L	D10 DL10	DF10ST DFL10ST	FA10001M	FA10001P	2	0.2	± 0.024	≤ 0.012	± 12.0	≤ 6.0	± 0.050	≤ 0.040	± 25	≤ 20
						0.5	± 0.025	≤ 0.012	± 5.0	≤ 2.4	± 0.050	≤ 0.040	± 10	≤ 8
						1	± 0.027	≤ 0.013	± 2.7	≤ 1.3	± 0.050	≤ 0.040	± 5.0	≤ 4.0
P10L	D10 DL10	DF10ST DFL10ST	FA10002M	FA10002P	10	5	± 0.040	≤ 0.016	± 8.0	≤ 3.2	N/A	N/A	N/A	N/A
						5	± 0.025	≤ 0.012	± 2.5	≤ 1.2	± 0.120	± 0.080	± 12	± 8.0
						5	± 0.075	≤ 0.030	± 1.5	≤ 0.6	± 0.120	± 0.080	± 2.4	± 1.6
						10	± 0.100	≤ 0.040	± 1.0	≤ 0.4	± 0.120	± 0.080	± 1.2	± 0.8
P20L	D200	DF30ST	FA10003M	FA10003P	20	2	± 0.10	≤ 0.030	± 5.0	≤ 1.5	± 0.20	± 0.100	± 10	± 5.0
						10	± 0.10	≤ 0.050	± 1.0	≤ 0.5	± 0.20	± 0.100	± 2.0	± 1.0
						20	± 0.20	≤ 0.060	± 1.0	≤ 0.3	± 0.20	± 0.100	± 1.0	± 0.5
P100L	D200	DF100ST	FA10004M	FA10004P	100	10	± 0.35	≤ 0.10	± 3.5	≤ 1.0	± 0.80	± 0.300	± 8.0	± 3.0
						50	± 0.40	≤ 0.12	± 0.8	≤ 0.24	± 0.80	± 0.300	± 1.6	± 0.60
						100	± 0.80	≤ 0.15	± 0.8	≤ 0.15	± 0.80	± 0.300	± 0.80	± 0.30
P200L	D200 D300	DF200ST DF300ST	FA10005M	FA10005P	200	20	± 0.50	≤ 0.20	± 2.5	≤ 1.0	± 1.60	± 0.600	± 8.0	± 3.0
						100	± 0.80	≤ 0.25	± 0.8	≤ 0.25	± 1.60	± 0.600	± 1.6	± 0.60
						200	± 1.60	≤ 0.30	± 0.8	≤ 0.15	± 1.60	± 0.600	± 0.80	± 0.30
P1000L	D1000 D1200	DF1000ST DF1200ST	FA10006M	FA10006P	1000	100	± 3.0	≤ 0.6	± 3.0	≤ 0.6	± 8.0	± 3.0	± 8.0	± 3.0
						500	± 4.0	≤ 1.0	± 0.8	≤ 0.2	± 8.0	± 3.0	± 1.6	± 0.60
						1000	± 8.0	≤ 1.5	± 0.8	≤ 0.15	± 8.0	± 3.0	± 0.80	± 0.30
P5000L	D5000		FA10007		5000	500	± 12	≤ 3	± 2.4	≤ 0.6	± 40.0	± 15.0	± 8.0	± 3.0
						2500	± 15	≤ 5	± 0.6	≤ 0.2	± 40.0	± 15.0	± 1.6	± 0.60
						5000	± 30	≤ 8	± 0.6	≤ 0.16	± 40.0	± 15.0	± 0.80	± 0.30
P10mLL	D10mL		FA10008		10000	1000	± 30	≤ 6	± 3.0	≤ 0.6	± 60.0	± 30.0	± 6.0	± 3.0
						5000	± 40	≤ 10	± 0.8	≤ 0.2	± 60.0	± 30.0	± 1.2	± 0.60
						10000	± 60	≤ 16	± 0.6	≤ 0.16	± 60.0	± 30.0	± 0.60	± 0.30



*CV means Coefficient of Variation (%)

Gilson maximum permissible errors are guaranteed only when PIPETMAN® pipettes are used with the recommended PIPETMAN® DIAMOND Tips.

For a pipette with a plastic tip ejector, the part number ends with the letter P.

For a pipette with a stainless steel tip ejector, the part number ends with the letter M.

P5000L and P10mLL are equipped with plastic tip ejectors.

PIPETMAN L single channel variable volume boxes include:

- PIPETMAN L
- Quick Guide
- Safety bag
- Certificate of Conformity (including barcode sticker)
- Tip ejector adapter equipped on P2L/P10L
- Bag of ten filters (only for P5000L and P10mLL)



PIPETMAN® L MULTICHANNEL MODELS

Model	PIPETMAN® DIAMOND Tips		Part Number	Nominal Volume (µL)	Volume (µL)	Maximum Permissible Errors							
						Gilson				ISO 8655-2 (Table 2)			
						Systematic Error (µL)	Random Error (µL)	Systematic Error (%)	Random Error (CV)*	Systematic Error (µL)	Random Error (µL)	Systematic Error (%)	Random Error (CV)*
P8x10L	D10	DF10ST	FA10013	10	0.5	± 0.08	≤ 0.04	± 16.0	≤ 8.0	N/A	N/A	N/A	N/A
P12x10L	DL10	DFL10ST	FA10014		1	± 0.08	≤ 0.05	± 8.0	≤ 5.0	± 0.24	± 0.16	± 24	± 16
					5	± 0.20	≤ 0.10	± 4.0	≤ 2.0	± 0.24	± 0.16	± 4.8	± 3.2
					10	± 0.20	≤ 0.10	± 2.0	≤ 1.0	± 0.24	± 0.16	± 2.4	± 1.6
P8x20L	DL10	DFL10ST	FA10009	20	2	± 0.10	≤ 0.08	± 5.0	≤ 4.0	± 0.40	± 0.20	± 20	± 10
P12x20L	D200	DF30ST	FA10010		10	± 0.20	≤ 0.10	± 2.0	≤ 1.0	± 0.40	± 0.20	± 4.0	± 2.0
					20	± 0.40	≤ 0.20	± 2.0	≤ 1.0	± 0.40	± 0.20	± 2.0	± 1.0
P8x200L	D200	DF200ST	FA10011	200	20	± 0.50	≤ 0.25	± 2.5	≤ 1.25	± 3.20	± 1.20	± 16	± 6.0
P12x200L	D300	DF300ST	FA10012		100	± 1.00	≤ 0.40	± 1.0	≤ 0.4	± 3.20	± 1.20	± 1.6	± 1.2
					200	± 2.00	≤ 0.50	± 1.0	≤ 0.25	± 3.20	± 1.20	± 1.6	± 0.60
P8x200LVR	D200	DF200ST	FA10035	200	20	± 0.50	≤ 0.25	± 2.5	≤ 1.25	± 3.20	± 1.20	± 16	± 6.0
P12x200LVR	D300	DF300ST	FA10036		100	± 1.00	≤ 0.40	± 1.0	≤ 0.4	± 3.20	± 1.20	± 1.6	± 1.2
					200	± 2.00	≤ 0.50	± 1.0	≤ 0.25	± 3.20	± 1.20	± 1.6	± 0.60
P8x300L	D200	DF200ST	FA10015	300	20	± 1.00	≤ 0.35	± 5.0	≤ 1.75	N/A	N/A	N/A	N/A
P12x300L	D300	DF300ST	FA10016		30	± 1.00	≤ 0.35	± 3.33	± 1.17	± 4.8	± 1.8	± 1.8	± 1.6
					150	± 1.50	≤ 0.60	± 1.0	≤ 0.4	± 4.8	± 1.8	± 3.2	± 1.2
					300	± 3.00	≤ 1.00	± 1.0	≤ 0.33	± 4.8	± 1.8	± 1.6	± 0.60
P8x300LVR	D200	DF200ST	FA10037	300	20	± 1.00	≤ 0.35	± 5.0	≤ 1.75	N/A	N/A	N/A	N/A
P12x300LVR	D300	DF300ST	FA10038		30	± 1.00	≤ 0.35	± 3.33	± 1.17	± 4.8	± 1.8	± 1.8	± 1.6
					150	± 1.50	≤ 0.60	± 1.0	≤ 0.4	± 4.8	± 1.8	± 3.2	± 1.2
					300	± 3.00	≤ 1.00	± 1.0	≤ 0.33	± 4.8	± 1.8	± 1.6	± 0.60
P8x1200L	D1200	DF1200ST	FA10039	1200	100	± 6.0	≤ 0.9	± 6.0	≤ 0.9	N/A	N/A	N/A	N/A
P12x1200L			FA10040		120	± 6.0	≤ 0.9	± 5.0	≤ 0.75	± 19.2	± 7.2	± 7.2	± 1.6
					600	± 8.0	≤ 1.2	± 1.33	≤ 0.2	± 19.2	± 7.2	± 3.2	± 1.2
					1200	± 10.0	≤ 1.5	± 0.83	≤ 0.13	± 19.2	± 7.2	± 1.6	± 0.60



*CV means Coefficient of Variation (%)

Gilson maximum permissible errors are guaranteed only when PIPETMAN® pipettes are used with the recommended PIPETMAN® DIAMOND Tips.

For a pipette with a plastic tip ejector, the part number ends with the letter P.

For a pipette with a stainless steel tip ejector, the part number ends with the letter M.

P500L and P10mLL are equipped with plastic tip ejectors.

PIPETMAN L multichannel boxes include:

- PIPETMAN L
- Quick Guide
- Safety bag
- Certificate of Conformity (including barcode sticker)
- Ejector spacer for D10 tips (only for Px10L)
- Bag of four V-rings (only for VR multichannel models)
- V-ring removal tool (only for VR multichannel models)



PIPETMAN® L FIXED VOLUME MODELS

Model	PIPETMAN® DIAMOND Tips		Part Number	Nominal Volume (µL)	Volume (µL)	Gilson				ISO 8655-2 (Table 1)			
						Systematic Error (µL)	Random Error (µL)	Systematic Error (%)	Random Error (CV)*	Systematic Error (µL)	Random Error (µL)	Systematic Error (%)	Random Error (CV)*
F1L	D10 DL10	DF10ST DFL10ST	FA10017	1	1	± 0.020	≤ 0.015	± 2.0	≤ 1.5	± 0.025	≤ 0.020	± 2.5	≤ 2.0
F2L	D10 DL10	DF10ST DFL10ST	FA10018	2	2	± 0.050	≤ 0.020	± 2.5	≤ 1.0	± 0.050	≤ 0.040	± 2.5	≤ 2.0
F5L	D10 DL10	DF10ST DFL10ST	FA10019	5	5	± 0.050	≤ 0.025	± 1.0	≤ 0.5	± 0.125	≤ 0.075	± 2.5	≤ 1.5
F10L	D10 DL10	DF10ST DFL10ST	FA10020	10	10	± 0.060	≤ 0.030	± 0.6	≤ 0.3	± 0.120	≤ 0.080	± 1.2	≤ 0.8
F20L	D200	DF30ST	FA10021	20	20	± 0.10	≤ 0.050	± 0.5	≤ 0.25	± 0.20	≤ 0.100	± 1.0	≤ 0.5
F25L	D200	DF30ST	FA10022	25	25	± 0.20	≤ 0.070	± 0.8	≤ 0.28	± 0.25	≤ 0.125	± 1.0	≤ 0.5
F50L	D200	DF100ST	FA10023	50	50	± 0.35	≤ 0.120	± 0.7	≤ 0.24	± 0.50	≤ 0.250	± 1.0	≤ 0.5
F100L	D200	DF100ST	FA10024	100	100	± 0.55	≤ 0.15	± 0.6	≤ 0.15	± 0.80	≤ 0.300	± 0.80	≤ 0.30
F200L	D200	DF200ST	FA10025	200	200	± 1.2	≤ 0.30	± 0.6	≤ 0.15	± 1.60	≤ 0.600	± 0.80	≤ 0.30
F250L	D300	DF300ST	FA10026	250	250	± 1.5	≤ 0.75	± 0.6	≤ 0.30	± 2.0	≤ 0.75	± 0.80	≤ 0.30
F300L	D1000	DF1000ST	FA10027	300	300	± 2.40	≤ 0.50	± 0.8	≤ 0.17	± 2.4	≤ 0.9	± 0.80	≤ 0.30
F400L	D1000	DF1000ST	FA10028	400	400	± 2.40	≤ 0.80	± 0.6	≤ 0.2	± 3.2	≤ 1.2	± 0.80	≤ 0.30
F500L	D1000	DF1000ST	FA10029	500	500	± 3.00	≤ 0.80	± 0.6	≤ 0.16	± 4.0	≤ 1.5	± 0.80	≤ 0.30
F1000L	D1000	DF1000ST	FA10030	1000	1000	± 5.0	≤ 1.3	± 0.5	≤ 0.13	± 8.0	≤ 3.0	± 0.80	≤ 0.30
F5000L	D5000		FA10031	5000	5000	± 20	≤ 7	± 0.4	≤ 0.14	± 40.0	≤ 15.0	± 0.80	≤ 0.30



*CV means Coefficient of Variation (%)

PIPETMAN L single channel fixed volume L boxes include:

- PIPETMAN L
- Quick Guide
- Safety bag
- Certificate of Conformity (including bar code sticker)
- Adjustment key

NOTE

PIPETMAN L fixed volume are equipped with a plastic ejector. Depending on your needs and applications, metal ejectors are available as spare parts.

PIPETMAN L Kits

PIPETMAN L single channel - variable volume models are also available in kits, offering the essential pipetting tools to start an experiment right away.

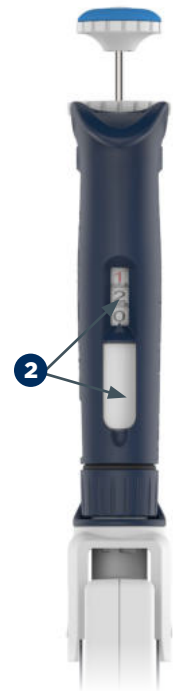
PIPETMAN® L KITS

Model	Part Number	PIPETMAN L Models	PIPETMAN® DIAMOND Tips	Accessories
PIPETMAN L Starter Kit	F167350	P20L P200L P1000L	D200 D1000	3 SINGLE™ pipette holders 3 plastic ejectors
PIPETMAN L Micro-volume Kit	F167550	P2L P10L P100L	DL10 D200	3 SINGLE™ pipette holders 3 plastic ejectors
PIPETMAN L 4-pipette Kit	F167370	P2L P20L P200L P1000L	DL10 D200 D1000	4 SINGLE™ pipette holders 4 plastic ejectors



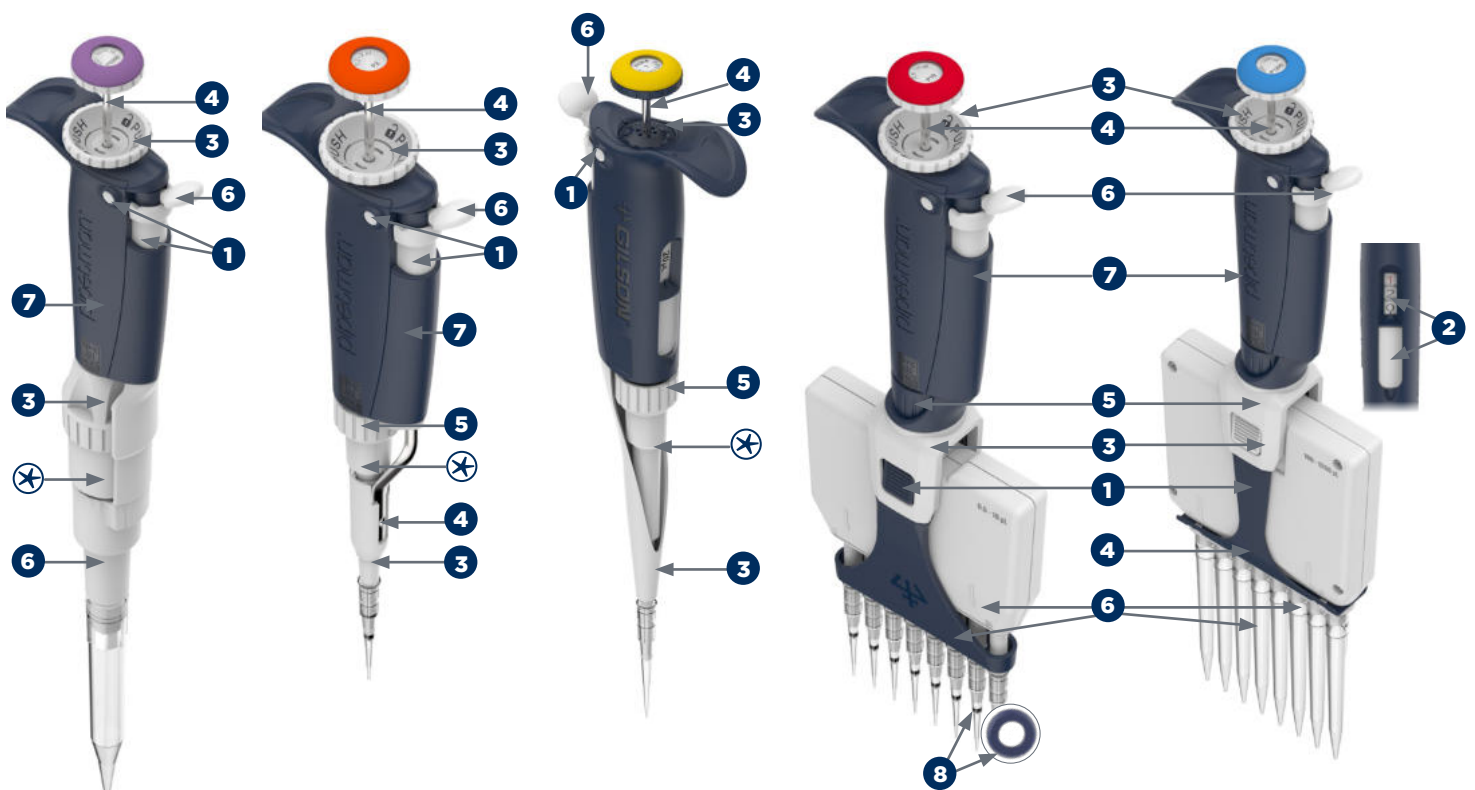
DESCRIPTION AND MATERIALS

Label	Materials
1	Poly Oxy Methylene (POM)
2	Polycarbonate (PC)
3	Polybutylene Terephthalate (PBT)
4	Stainless Steel (SS)
5	Polyvinylidene Fluoride (PVDF)
6	Polyamide (PA)
7	Polypropylene (PP)
8	Fluorocarbene



- 5** P2L, P10L, P200L, P1000L, F1L, F2L, F5L, F10L, F200L, F250L, F300L, F400, F500L, F1000L
- 3** P20L, P100L, P5000L, P10mLL, F20L, F25L, F50L, F100L, F5000L

Single Channel Models		Multichannel Models	
Variable Volume Models	Fixed Volume Models	Px10L to Px300L Models (Including VR Models)	Px1200L Models





DIMENSIONS AND WEIGHT

NOTE

The values below are given as an indication and may vary slightly from one product to another.

PIPETMAN® L VARIABLE VOLUME MODELS

Models	Part Number	PIPETMAN L Models without Packaging		PIPETMAN L Models with Packaging	
		Length (mm)	Weight (g)	Dimensions (cm) W x D x H	Weight (g)
PIPETMAN L Single Channel					
PIPETMAN P2L	FA10001M / FA10001P	243	85/82	32 x 11 x 4	209
PIPETMAN P10L	FA10002M / FA10002P	245	85/82	32 x 11 x 4	210
PIPETMAN P20L	FA10003M / FA10003P	257	84/83	32 x 11 x 4	205
PIPETMAN P100L	FA10004M / FA10004P	256	86/83	32 x 11 x 4	209
PIPETMAN P200L	FA10005M / FA10005P	254	95/92	32 x 11 x 4	217
PIPETMAN P1000L	FA10006M / FA10006P	282	117/109	32 x 11 x 4	230
PIPETMAN P5000L	FA10007	275	129	32 x 11 x 5	321
PIPETMAN P10mLL	FA10008	275	154	32 x 11 x 5	321
PIPETMAN L Multichannel					
PIPETMAN P8X10L	FA10013	272	163	33 x 15 x 4	330
PIPETMAN P12X10L	FA10014	272	197	33 x 15 x 4	367
PIPETMAN P8X20L	FA10009	272	163	33 x 15 x 4	330
PIPETMAN P12X20L	FA10010	272	197	33 x 15 x 4	367
PIPETMAN P8X200L	FA10011	257	177	33 x 15 x 4	344
PIPETMAN P12X200L	FA10012	257	213	33 x 15 x 4	383
PIPETMAN P8X200LVR	FA10035	257	177	33 x 15 x 4	344
PIPETMAN P12X200LVR	FA10036	257	213	33 x 15 x 4	383
PIPETMAN P8X300L	FA10015	256	187	33 x 15 x 4	354
PIPETMAN P12X300L	FA10016	256	223	33 x 15 x 4	393
PIPETMAN P8X300LVR	FA10037	256	187	33 x 15 x 4	354
PIPETMAN P12X300LVR	FA10038	256	223	33 x 15 x 4	393
PIPETMAN P8X1200L	FA10039	265	235	33 x 15 x 4	471
PIPETMAN P12X1200L	FA10040	265	285	33 x 15 x 4	521



PIPETMAN® L FIXED MODELS

Models	Part Number	PIPETMAN L Fixed Models without Packaging		PIPETMAN L Fixed Models with Packaging	
		Length (mm)	Weight (g)	Dimensions (cm) W x D x H	Weight (g)
PIPETMAN L Fixed Single Channel					
F1L	FA10017	243	69	33 x 15 x 4	366
F2L	FA10018	243	69	33 x 15 x 4	406
F5L	FA10019	245	70	33 x 15 x 4	366
F10L	FA10020	245	70	33 x 15 x 4	409
F20L	FA10021	257	72	33 x 15 x 4	372
F25L	FA10022	257	72	33 x 15 x 4	417
F50L	FA10023	256	73	32 x 11 x 4	166
F100L	FA10024	256	73	32 x 11 x 4	167
F200L	FA10025	254	81	32 x 11 x 4	212
F250L	FA10026	254	81	32 x 11 x 4	208
F300L	FA10027	282	95	32 x 11 x 4	195
F400L	FA10028	282	95	32 x 11 x 4	213
F500L	FA10029	282	95	32 x 11 x 4	214
F1000L	FA10030	282	95	32 x 11 x 4	170
F5000L	FA10031	275	97	32 x 11 x 4	180

REGULATORY COMPLIANCE

PIPETMAN L conforms to the Use of Hazardous Substances Directive **2015/863/EU**.

WARRANTY

Gilson warrants this pipette against defects in material under normal use and service for a period of **three years** from the date of purchase.

This warranty shall not apply to pipettes which are subject to abnormal use and/or improper or inadequate maintenance (contrary to the recommendations given in the user's guide), including, but not limited to pipettes which have been subjected to physical damage, improper handling, or spillage or exposure to any corrosive environment. This warranty shall also be void in the event pipettes are altered or modified by any party other than Gilson or its designates. Gilson's sole liability under this warranty shall be limited to, at Gilson's sole option, repair or replacement of any defective components of pipettes or refund of the purchase price paid for such pipettes. **Routine cleaning, control, and recalibration are not covered under the warranty. The replacement of wearing parts such as seals, O-rings, broken pistons assembly, and broken tip holders are not covered under the warranty.**

NOTICE

Yearly routine maintenance is highly recommended to keep your pipette in good condition, ensuring a continued high level of performance.

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