Gilson Pipette Specifications

Systematic Error = Accuracy
Random Error = Precision

PIPETMAN Classic™

Model Part Number Volume Range	Volume (µL)	Pipette Specifications: Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
P2 F144801 0.2-2 µL	Min. 0.2	± 0.024	≤ 0.012	12%	6%
	0.5	± 0.025	≤ 0.012	5%	2.4%
	Max. 2	± 0.030	≤ 0.014	1.5%	0.7%
P10 F144802 1-10µL	Min. 1	± 0.025	≤ 0.012	2.5%	1.2%
	5	± 0.075	≤ 0.030	1.5%	0.6%
	Max. 10	± 0.100	≤ 0.040	1%	0.4%
P20 F123600 2-20µL	Min. 2	± 0.10	≤ 0.03	5%	1.5%
	5	± 0.10	≤ 0.04	2%	0.8%
	10	± 0.10	≤ 0.05	1%	0.5%
	Max. 20	± 0.20	≤ 0.06	1%	0.3%
P100 F123615 20-100µL	Min. 20	± 0.35	≤ 0.10	1.75%	0.5%
	50	± 0.40	≤ 0.12	0.8%	0.24%
	Max. 100	± 0.80	≤ 0.15	0.8%	0.15%
P200 F123601 50-200µL	Min. 50	± 0.50	≤ 0.20	1%	0.4%
	100	± 0.80	≤ 0.25	0.8%	0.25%
	Max. 200	± 1.60	≤ 0.30	0.8%	0.15%
P1000 F123602 200-1000µL	Min. 200	± 3	≤ 0.6	1.5%	0.3%
	500	± 4	≤ 1.0	0.8%	0.2%
	Max. 1000	± 8	≤ 1.5	0.8%	0.15%
P5000 F123603 1000-5000µL	Min. 1000	± 12	≤ 3	1.2%	0.3%
	2000	± 12	≤ 5	0.6%	0.25%
	Max. 5000	± 30	≤ 8	0.6%	0.16%
P10 mL F161201 1-10mL	Min. 1 mL	± 30	≤ 6	3%	0.6%
	2 mL	± 30	≤ 6	1.5%	0.3%
	5 mL	± 40	≤ 10	0.8%	0.2%
	Max. 10 mL	± 60	≤ 16	0.6%	0.16%

PIPETMAN G

Model Part Number Volume Range	Volume (µL)	Pipette Specifications: Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
P2G F144054M/P 0.2-2 µL	Min. 0.2	± 0.024	≤ 0.012	12%	6%
	0.5	± 0.025	≤ 0.012	5.0%	2.4%
	Max. 2	± 0.030	≤ 0 .014	1.5%	0.7%
P10G F144055M/P 1-10µL	Min. 1	± 0.025	≤ 0.012	2.5%	1.2%
	5	± 0.075	≤ 0.030	1.5%	0.6%
	Max. 10	± 0.100	≤ 0.040	1%	0.4%
P20G F144056M/P 2-20µL	Min. 2	± 0.10	≤ 0.03	5%	1.5%
	10	± 0.10	≤ 0.05	1%	0.5%
	Max. 20	± 0.20	≤ 0.06	1%	0.3%
P100G F144057M/P 10-100µL	Min. 10	± 0.35	≤ 0.10	3.5%	1%
	50	± 0.40	≤ 0.12	0.8%	0.24%
	Max. 100	± 0.80	≤ 0.15	0.8%	0.15%
P200G F144058M/P 20-200µL	Min. 20	± 0.50	≤ 0.20	2.5%	1%
	100	± 0.80	≤ 0.25	0.8%	0.25%
	Max. 200	± 1.60	≤ 0.30	0.8%	0.15%
P1000G F144059M/P 100-1000µL	Min. 100	± 3	≤ 0.6	3%	0.6%
	500	± 4	≤ 1.0	0.8%	0.2%
	Max. 1000	± 8	≤ 1.5	0.8%	0.15
P5000G F144066 500-5000µL	Min. 500	± 12	≤ 3	2.4%	0.6%
	2500	± 15	≤ 5	0.6%	0.2%
	Max. 5000	± 30	≤ 8	0.6%	0.16%
P10mL G F144067 1-10mL	Min. 1 mL	± 30	≤ 6	3%	0.6%
	5 mL	± 40	≤ 10	0.8%	0.2%
	Max. 10 mL	± 60	≤ 16	0.6%	0.16%

PIPETMAN Neo

Model Part Number Volume Range	Volume (µL)	Pipette Specifications: Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
P2N F144561 0.2-2 µL	Min. 0.2	± 0.024	≤ 0.012	12%	6%
	0.5	± 0.025	≤ 0.012	5.0%	2.4%
	Max. 2	± 0.030	≤ 0 .014	1.5%	0.7%
P10N F144562 1-10µL	Min. 1	± 0.025	≤ 0.012	2.5%	1.2%
	5	± 0.075	≤ 0.030	1.5%	0.6%
	Max. 10	± 0.100	≤ 0.040	1%	0.4%
P20N F144563 2-20µL	Min. 2	± 0.10	≤ 0.03	5%	1.5%
	10	± 0.10	≤ 0.05	1%	0.5%
	Max. 20	± 0.20	≤ 0.06	1%	0.3%
P100N F144564 10-100µL	Min. 10	± 0.35	≤ 0.10	3.5%	1%
	50	± 0.40	≤ 0.12	0.8%	0.24%
	Max. 100	± 0.80	≤ 0.15	0.8%	0.15%
P200N F144565 20-200µL	Min. 20	± 0.50	≤ 0.20	2.5%	1%
	100	± 0.80	≤ 0.25	0.8%	0.25%
	Max. 200	± 1.60	≤ 0.30	0.8%	0.15%
P1000N F144566 100-1000µL	Min. 100	± 3	≤ 0.6	3%	0.6%
	500	± 4	≤ 1.0	0.8%	0.2%
	Max. 1000	± 8	≤ 1.5	0.8%	0.15

PIPETMAN Neo Multichannel

Model Part Number Volume Range	Volume (µL)	Pipette Specifications: Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
8x20 F14401 2-20 µL	Min. 2	± 0.10	≤ 0.08	5%	4%
	10	± 0.20	≤ 0.10	2%	1%
	Max. 20	± 0.40	≤ 0.20	2%	1%
12x20 F14402 2-20µL	Min. 2	± 0.10	≤ 0.08	5%	4%
	10	± 0.20	≤ 0.10	2%	1%
	Max. 20	± 0.40	≤ 0.20	2%	1%
8x200 F14403 20-200µL	Min. 20	± 0.50	≤ 0.25	2.5%	1.25%
	100	± 1.0	≤ 0.40	1%	0.4%
	Max. 200	± 2.0	≤ 0.60	1%	0.3%
12x200 F14404 20-200µL	Min. 20	± 0.5	≤ 0.25	2.5%	1.25%
	100	± 1.0	≤ 0.40	1%	0.4%
	Max. 200	± 2.0	≤ 0.60	1%	0.3%

DOMINIQUE DUTSCHER SAS

PIPETMAN L

Model Part Number Volume Range	Volume (µL)	Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
P2L FA10001M/P 0.2-2 µL	Min. 0.2	± 0.024	≤ 0.012	12%	6%
	0.5	± 0.025	≤ 0.012	5.0%	2.4%
	1	± 0.027	≤ 0.013	2.7%	1.3%
	Max. 2	± 0.030	≤ 0 .014	1.5%	0.7%
P10L FA10002M/P 1-10µL	Min. 1	± 0.025	≤ 0.012	2.5%	1.2%
	5	± 0.075	≤ 0.030	1.5%	0.6%
	Max. 10	± 0.100	≤ 0.040	1%	0.4%
P20L FA10003M/P 2-20µL	Min. 2	± 0.10	≤ 0.03	5%	1.5%
	10	± 0.10	≤ 0.05	1%	0.5%
	Max. 20	± 0.20	≤ 0.06	1%	0.3%
P100L FA10004M/P 10-100µL	Min. 10	± 0.35	≤ 0.10	3.5%	1%
	50	± 0.40	≤ 0.12	0.8%	0.24%
	Max. 100	± 0.80	≤ 0.15	0.8%	0.15%
P200L FA10005M/P 20-200µL	Min. 20	± 0.50	≤ 0.20	2.5%	1%
	100	± 0.80	≤ 0.25	0.8%	0.25%
	Max. 200	± 1.60	≤ 0.30	0.8%	0.15%
P1000L FA10006M/P 100-1000µL	Min. 100	± 3	≤ 0.6	3%	0.6%
	500	± 4	≤ 1.0	0.8%	0.2%
	Max. 1000	± 8	≤ 1.5	0.8%	0.15
P5000L FA10007 500-5000µL	Min. 500	± 12	≤ 3	2.4%	0.6%
	2500	± 15	≤ 5	0.6%	0.2%
	Max. 5000	± 30	≤ 8	0.6%	0.16%
P10mL L FA10008 1-10mL	Min. 1 mL	± 30	≤ 6	3%	0.6%
	5 mL	± 40	≤ 10	0.8%	0.2%
	Max. 10 mL	± 60	≤ 16	0.6%	0.16%

PIPETMAN L Multichannel

Model Part Number Volume Range	Volume (µL)	Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
P8x10L (F810013) P12x10L (F810014) 0.5-10µL	Min. 0.5	± 0.08	≤ 0.04	16%	8.0%
	1	± 0.08	≤ 0.05	8%	5.0%
	5	± 0.2	≤ 0.1	4%	2%
	Max. 10	± 0.2	≤ 0.1	2%	1%
P8x20L (F810009) P12x20L (F810010) 2-20µL	Min. 2	± 0.10	≤ 0.08	5.0%	4.0%
	10	± 0.20	≤ 0.10	2.0%	1.0%
	Max. 20	± 0.40	≤ 0.15	2.0%	0.75%
P8x200L (F810011) P12x200L (F810012) 20-200µL	Min. 20	± 0.50	≤ 0.25	2.5%	1.25%
	100	± 1.00	≤ 0.40	1.0%	0.4%
	Max. 200	± 2.00	≤ 0.50	1.0%	0.25%
P8x300L (F810015) P12x300L (F810016) 20-300µL	Min. 20	± 1.0	≤ 0.35	5.0%	1.75%
	30	± 1.0	≤ 0.35	3.3%	0.35%
	150	± 1.5	≤ 0.60	1.0%	0.4%
	Max. 300	± 3.0	≤ 1.0	1.0%	0.33%

PIPETMAN M

Model Part Number Volume Range	Volume (µL)	Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
P10M F81001 0.5-10 µL	Min. 0.5	± 0.04	≤ 0.013	8.0%	2.6%
	1	± 0.025	≤ 0.012	2.5%	1.2%
	5	± 0.060	≤ 0.020	1.2%	0.4%
	Max. 10	± 0.080	≤ 0.025	0.8%	0.25%
P20M F81002 2-20µL	Min. 2	± 0.075	≤ 0.025	3.75%	1.25%
	10	± 0.10	≤ 0.035	1.0%	0.35%
	Max. 20	± 0.15	≤ 0.05	0.75%	0.25%
P200M F81003 20-200µL	Min. 20	± 0.40	≤ 0.15	2.0%	0.75%
	100	± 0.80	≤ 0.22	0.8%	0.22%
	Max. 200	± 1.0	≤ 0.26	0.5%	0.13%
P1000M F81004 100-1000µL	Min. 100	± 2.5	≤ 0.4	2.5%	0.4%
	500	± 3.5	≤ 0.7	0.7%	0.14%
	Max. 1000	±5.0	≤ 1.1	0.5%	0.11%

PIPETMAN M Multichannel

Model Part Number Volume Range	Volume (µL)	Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
8x20M F81005 2-20 µL	Min. 1	± 0.08	≤ 0.05	8%	5%
	10	± 0.15	≤ 0.10	1.5%	1%
	Max. 20	± 0.25	≤ 0.12	1.25%	0.6%
12x20M F81006 2-20µL	Min. 1	± 0.08	≤ 0.05	8%	5%
	10	± 0.15	≤ 0.10	1.5%	1%
	Max. 20	± 0.25	≤ 0.12	1.25%	0.6%
8x200M F81007 20-200µL	Min. 20	± 0.50	≤ 0.16	2.5%	0.8%
	100	± 1.0	≤ 0.30	1%	0.3%
	Max. 200	± 2.0	≤ 0.50	1%	0.25%
12x200M F81008 20-200µL	Min. 20	± 0.50	≤ 0.16	2.5%	0.8%
	100	± 1.0	≤ 0.30	1.0%	0.3%
	Max. 200	± 2.0	≤ 0.50	1.0%	0.25%
8x300M F81011 10-300µL	Min. 10	± 1.0	≤ 0.18	10%	1.8%
	150	± 1.5	≤ 0.375	1.0%	0.25%
	Max. 300	± 2.4	≤ 0.45	0.8%	0.15%
12x300M F81012 10-300µL	Min. 10	± 1.0	≤ 0.18	10%	1.8%
	150	± 1.5	≤ 0.375	1.0%	0.25%
	Max. 300	± 2.4	≤ 0.45	0.8%	0.15%

PIPETMAN L - Fixed Volume

Model Part Number	Volume (µL)	Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
F1 -FA10017	1	± 0.02	≤ 0.015	2.0%	1.5%
F2 - FA10018	2	± 0.05	≤ 0.02	2.5%	1.0%
F5 - FA10019	5	± 0.05	≤ 0.025	1.0%	0.5%
F10 - FA10020	10	± 0.06	≤ 0.03	0.6%	0.3%
F20 - FA10021	20	± 0.10	≤ 0.05	0.5%	0.25%
F25 - FA10022	25	± 0.20	≤ 0.07	0.8%	0.28%
F50 - FA10023	50	± 0.35	≤ 0.12	0.7%	0.24%
F100 - FA10024	100	± 0.55	≤ 0.15	0.55%	0.15%
F200 - FA10025	200	± 1.2	≤ 0.30	0.6%	0.15%
F250 - FA10026	250	± 1.5	≤ 0.75	0.6%	0.3%
F300 - FA10027	300	± 2.4	≤ 0.50	0.8%	0.16%
F400 - FA10028	400	± 2.4	≤ 0.80	0.6%	0.2%
F500 - FA10029	500	± 3.0	≤ 0.80	0.6%	0.16%
F1000 - FA10030	1000	± 5.0	≤ 1.3	0.5%	0.13%
F5000 - FA10031	5000	± 20.0	≤ 7.0	0.4%	0.14%

DOMINIQUE DUTSCHER SAS

DISTRIMAN

Model Part Number Volume Range	Volume (µL)	Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
125µL Micro F164100 **125µL Micro ST*** F164130 1-12.5µL	Min. 2 5 Max. 10	± 0.100 ± 0.125 ± 0.200	≤ 0.080 ≤ 0.075 ≤ 0.100	5.0% 2.5% 2%	4.0% 1.5% 1.0%
1250µL Mini F164110 **1250µL Mini ST*** F164140 10-125µL	Min. 20 50 Max. 100	± 0.80 ± 1.0 ± 1.0	≤ 0.20 ≤ 0.40 ≤ 0.60	4.0% 2.0% 1.0%	1.0% 0.8% 0.6%
12.5mL Maxi F164120 **12.5mL Maxi ST** F164150 100-1.25mL	Min. 200 500 Max. 1000	± 6.0 ± 7.5 ± 10	≤ 1.0 ≤ 1.5 ≤ 2.5	3.0% 1.5% 1.0%	0.5% 0.3% 0.25%

PIPETMAN F - Fixed Volume

Model Part Number	Volume (µL)	Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
F2 - F123770	2	± 0.08	≤ 0.03	4.0%	1.5%
F5 - F123771	5	± 0.10	≤ 0.04	2.0%	0.8%
F10 - F123772	10	± 0.10	≤ 0.05	1.0%	0.5%
F20 - F123604	20	± 0.20	≤ 0.06	1.0%	0.3%
F25 - F123775	25	± 0.25	≤ 0.07	1.0%	0.28%
F50 - F123778	50	± 0.40	≤ 0.15	0.8%	0.3%
F100 - F123784	100	± 0.80	≤ 0.25	0.8%	0.25%
F200 - F123605	200	± 1.6	≤ 0.30	0.8%	0.15%
F250 - F123787	250	± 3.0	≤ 0.75	1.2%	0.3%
F300 - F123788	300	± 3.5	≤ 0.75	1.16%	0.25%
F400 - F123789	400	± 3.6	≤ 0.80	0.9%	0.2%
F500 - F123790	500	± 4.0	≤ 1.0	0.8%	0.2%
F1000 - F123606	1000	± 8.0	≤ 1.3	0.8%	0.13
F5000 - F123607	50000	± 30	≤ 8	0.6%	0.16%

MICROMAN

Model Part Number Volume Range	Volume (µL)	Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
M10 F148501 1-10µL	Min. 1 5 Max. 10	± 0.09 ± 0.10 ± 0.15	≤ 0.03 ≤ 0.03 ≤ 0.06	9.0% 2.0% 1.5%	3.0% 0.6% 0.6%
M25 F148502 3-25µL	Min. 3 10 Max. 25	± 0.25 ± 0.27 ± 0.30	≤ 0.08 ≤ 0.08 ≤ 0.10	8.33% 2.7% 1.2%	2.66% 0.8% 0.4%
M50 F148503 20-50µL	Min. 20 Max. 50	± 0.34 ± 0.70	≤ 0.20 ≤ 0.30	1.7% 1.4%	1.0% 0.6%
M100 F148504 10-100 µL	Min. 10 50 Max. 100	± 0.50 ± 0.75 ± 1.0	≤ 0.20 ≤ 0.30 ≤ 0.40	5.0% 1.5% 1.0%	2.0% 0.6% 0.4%
M250 F148505 50-250µL	Min. 50 100 Max. 250	± 1.5 ± 1.7 ± 2.5	≤ 0.30 ≤ 0.30 ≤ 0.50	3% 1.7% 1.0%	0.6% 0.3% 0.2%
M1000 F148506 100-1000µL	Min. 100 500 Max. 1000	± 3 ± 5 ± 8	≤ 1.6 ≤ 2.5 ≤ 4	3% 1% 0.8%	1.6% 0.5% 0.4%

PIPETMAN Concept

Model Part Number Volume Range	Volume (µL)	Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
C10 F31012 0.5-10 µL	Min. 0.5 1 5 Max. 10	± 0.040 ± 0.025 ± 0.060 ± 0.080	≤ 0.013 ≤ 0.012 ≤ 0.020 ≤ 0.025	8.0% 2.5% 1.2% 0.8%	2.6% 1.2% 0.4% 0.25%
C100 F31013 5-100µL	Min. 5 10 50 Max. 100	± 0.35 ± 0.30 ± 0.38 ± 0.4	≤ 0.10 ≤ 0.10 ≤ 0.12 ≤ 0.15	7.0% 3.0% 0.76% 0.4%	2.0% 1.0% 0.24% 0.15%
C300 F31014 20-300µL	Min. 20 30 150 Max. 300	± 0.80 ± 0.70 ± 0.90 ± 1.05	≤ 0.16 ≤ 0.20 ≤ 0.23 ≤ 0.30	4.0% 2.33% 0.6% 0.35%	0.8% 0.66% 0.15% 0.1%
C1200 F31015 100-1200µL	Min. 100 120 600 Max. 1200	± 2.5 ± 2.4 ± 3.6 ± 6.0	≤ 0.4 ≤ 0.4 ≤ 0.8 ≤ 1.2	2.5% 2.0% 0.6% 0.5%	0.4% 0.33% 0.13% 0.1%
C5000 F31016 500-5000µL	Min. 500 2500 Max. 5000	± 10 ± 15 ± 25	≤ 2 ≤ 4 ≤ 7	2.0% 0.6% 0.5%	0.4% 0.16% 0.14%
C10mL F31017 1-10mL	Min. 1mL 5mL Max. 10mL	± 25 ± 30 ± 50	≤ 4 ≤ 8 ≤ 12	2.5% 0.6% 0.5%	0.4% 0.16% 0.12%

PIPETMAN Concept Multichannel

Model Part Number Volume Range	Volume (µL)	Systematic Error (µL)	Random Error (µL)	Systematic Error %	Random Error %
C8x10 (F31032) **C12x10** (F31042) 0.5-10 µL	Min. 1 5 Max. 10	± 0.04 ± 0.08 ± 0.10	≤ 0.15 ≤ 0.04 ≤ 0.06	0.4% 1.6% 1.0%	0.15% 0.8% 0.6%
C8x100 (F31033) **C12x100** (F31043) 5-100µL	Min. 10 50 Max. 100	± 0.25 ± 0.50 ± 0.80	≤ 0.14 ≤ 0.20 ≤ 0.25	2.5% 1.0% 0.8%	1.4% 0.4% 0.25%
C8x300 (F31034) **C12x300** (F31044) 20-300µL	Min. 30 150 Max. 300	± 1.0 ± 1.5 ± 2.4	≤ 0.18 ≤ 0.38 ≤ 0.60	3.33% 1.0% 0.8	0.6% 0.25% 0.2%

DOMINIQUE DUTSCHER SAS

GILSON®