



TEST REPORT

Issue No. : 20220603-31502345-003

Pipette type : Nichipet Air 300M-12
Serial No. : X20220603
Tip No. : BMT2-K
Volume range : 30 — 300 ul
Protocol No. : 0215

Testing procedures comply with ISO8655 - 6 standards.

JIS K 0970
Room temperature : 20.6 °C Water temperature : 21.0 °C
Air pressure : 1016.9 hPa
Correction value Z : 1.003061 ul/mg
Relative humidity : 65.7 %
Basis of adjustment : Ex (to delivery)

Test . 1	Test volume : 300 ul		No. of Test : 10		Limit value (es) : ± 0.80 %			Limit value (CV) : ≤ 0.30 %				
Nozzle No. :	1	2	3	4	5	6	7	8	9	10	11	12
Data 01 :	297.61	297.72	297.82	297.92	298.02	298.12	298.22	298.32	298.42	298.52	298.62	298.70
Data 02 :	297.62	297.73	297.83	297.93	298.03	298.13	298.23	298.33	298.43	298.53	298.63	298.71
Data 03 :	297.63	297.74	297.84	297.94	298.04	298.14	298.24	298.34	298.44	298.54	298.62	300.16
Data 04 :	297.64	297.75	297.85	297.95	298.05	298.15	298.25	298.35	298.45	298.55	298.63	300.17
Data 05 :	297.65	297.76	297.86	297.96	298.06	298.16	298.26	298.36	298.46	298.56	298.64	298.72
Data 06 :	297.66	297.77	297.87	297.97	298.07	298.17	298.27	298.37	298.47	298.57	298.65	298.73
Data 07 :	297.67	297.78	297.88	297.98	298.08	298.18	298.28	298.38	298.48	298.58	298.66	298.74
Data 08 :	297.69	297.79	297.89	297.99	298.09	298.19	298.29	298.39	298.49	298.59	298.67	298.75
Data 09 :	297.70	297.80	297.90	298.00	298.10	298.20	298.30	298.40	298.50	298.60	298.68	298.76
Data 10 :	297.71	297.81	297.91	298.01	298.11	298.21	298.31	298.41	298.51	298.61	298.69	298.77
Mean value (ul) :	297.66ul	297.76ul	297.86ul	297.96ul	298.06ul	298.16ul	298.26ul	298.36ul	298.46ul	298.56ul	298.65ul	299.02ul
Systematic error (es) :	-0.78 %	-0.75 %	-0.71 %	-0.68 %	-0.65 %	-0.61 %	-0.58 %	-0.55 %	-0.51 %	-0.48 %	-0.45 %	-0.33 %
Random error (CV) :	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %	0.01 %	0.20 %
Test results :	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed

Test . 2	Test volume : 150 ul		No. of Test : 10		Limit value (es) : ± 1.00 %			Limit value (CV) : ≤ 0.50 %				
Nozzle No. :	1	2	3	4	5	6	7	8	9	10	11	12
Data 01 :	148.52	148.62	148.72	148.82	148.92	149.02	149.12	149.22	149.32	149.42	149.52	149.62
Data 02 :	148.53	148.63	148.73	148.83	148.93	149.03	149.13	149.23	149.33	149.43	149.53	149.63
Data 03 :	148.54	148.64	148.74	148.84	148.94	149.04	149.14	149.24	149.34	149.44	149.54	149.64
Data 04 :	148.55	148.65	148.75	148.85	148.95	149.05	149.15	149.25	149.35	149.45	149.55	149.65
Data 05 :	148.56	148.66	148.76	148.86	148.96	149.06	149.16	149.26	149.36	149.46	149.56	149.66
Data 06 :	148.57	148.67	148.77	148.87	148.97	149.07	149.17	149.27	149.37	149.47	149.57	149.67
Data 07 :	148.58	148.68	148.78	148.88	148.98	149.08	149.18	149.28	149.38	149.48	149.58	149.68
Data 08 :	148.60	148.69	148.79	148.89	148.99	149.09	149.19	149.29	149.39	149.49	149.59	149.69
Data 09 :	148.61	148.70	148.80	148.90	149.00	149.10	149.20	149.30	149.40	149.50	149.60	149.70
Data 10 :	148.62	148.71	148.81	148.91	149.01	149.11	149.21	149.31	149.41	149.51	149.61	149.71
Mean value (ul) :	148.56ul	148.66ul	148.76ul	148.86ul	148.96ul	149.06ul	149.16ul	149.26ul	149.36ul	149.46ul	149.56ul	149.66ul
Systematic error (es) :	-0.96 %	-0.89 %	-0.83 %	-0.76 %	-0.69 %	-0.62 %	-0.56 %	-0.49 %	-0.42 %	-0.36 %	-0.29 %	-0.22 %
Random error (CV) :	0.02 %	0.02 %	0.02 %	0.02 %	0.02 %	0.02 %	0.02 %	0.02 %	0.02 %	0.02 %	0.02 %	0.02 %
Test results :	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed

Test . 3	Test volume : 30 ul		No. of Test : 10		Limit value (es) : ± 3.00 %			Limit value (CV) : ≤ 1.00 %				
Nozzle No. :	1	2	3	4	5	6	7	8	9	10	11	12
Data 01 :	29.11	29.21	29.31	29.41	29.51	29.62	29.72	29.82	29.92	30.02	30.12	30.22
Data 02 :	29.12	29.22	29.32	29.42	29.52	29.63	29.73	29.83	29.93	30.03	30.13	30.23
Data 03 :	29.13	29.23	29.33	29.43	29.53	29.64	29.74	29.84	29.94	30.04	30.14	30.24
Data 04 :	29.14	29.24	29.34	29.44	29.54	29.65	29.75	29.85	29.95	30.05	30.15	30.25
Data 05 :	29.15	29.25	29.35	29.45	29.55	29.66	29.76	29.86	29.96	30.06	30.16	30.26
Data 06 :	29.16	29.26	29.36	29.46	29.56	29.67	29.77	29.87	29.97	30.07	30.17	30.27
Data 07 :	29.17	29.27	29.37	29.47	29.57	29.68	29.78	29.88	29.98	30.08	30.18	30.28
Data 08 :	29.18	29.28	29.38	29.48	29.58	29.69	29.79	29.89	29.99	30.09	30.19	30.29
Data 09 :	29.19	29.29	29.39	29.49	29.60	29.70	29.80	29.90	30.00	30.10	30.20	30.30
Data 10 :	29.20	29.30	29.40	29.50	29.61	29.71	29.81	29.91	30.01	30.11	30.21	30.31
Mean value (ul) :	29.16ul	29.26ul	29.36ul	29.46ul	29.56ul	29.66ul	29.76ul	29.86ul	29.96ul	30.06ul	30.16ul	30.26ul
Systematic error (es) :	-2.81 %	-2.47 %	-2.14 %	-1.80 %	-1.47 %	-1.13 %	-0.80 %	-0.47 %	-0.13 %	0.20 %	0.54 %	0.87 %
Random error (CV) :	0.10 %	0.10 %	0.10 %	0.10 %	0.10 %	0.10 %	0.10 %	0.10 %	0.10 %	0.10 %	0.10 %	0.10 %
Test results :	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed

Balance : Sartorius MSE225P-000-DI auto door (Online measurement)
Balance No. : 31502345
Thermometer : HP22-A
Thermometer No. : 60813725
Water temperature meter No. : TM-47
Identification of operator : 
Test Date : 2022/06/03
Date printed : 2022/06/03

Signature

Nichiryo Co., Ltd.