

## Specifications

	AD-4212B-PT	AD-4212A-PT	FX-300i-PT
Weighing Capacity *1	110 g / 31 g / 5.1 g *2	110 g	320 g
Minimum Weighing Value	0.1 mg / 0.01 mg / 0.001 mg	0.1 mg	1 mg
Linearity	±0.2 mg / ±0.05 mg / ±0.05 mg	±0.3 mg	±2 mg
Repeatability (Standard Deviation)	0.1 mg / 0.05 mg / 0.015 mg	0.15 mg	1 mg
Dimensions	Weighing unit : 80 (W) x 230 (D) x 200 (H) mm Display (with a stand) : 237 (W) x 150 (D) x 155 (H) mm		193 (W) x 262.5 (D) x 190 (H) mm
Standard Accessories *3	<ul style="list-style-type: none"> <li>• Instruction manual</li> <li>• Balance including the weighing pan unit, breeze break, AC adaptor and AC adaptor ID label</li> <li>• Calibration weight with a pair of tweezers</li> <li>• Evaporation trap</li> <li>• Sample cup with a holder (30 mL x 2 / 5 mL x 2)</li> <li>• Liquid thermometer</li> <li>• USB communications kit (USB converter, RS-232C cable, Instruction manual)</li> <li>• WinCT-Pipette (CD-ROM)</li> <li>• Carrying case with a shoulder belt and a key</li> </ul>		
AC Adaptor	Please confirm that the AC adaptor type is correct for your local voltage and power receptacle type.		
Power Consumption	Approx. 11VA (supplied to the AC adaptor)		
Carrying Case Dimensions	470 (W) x 150 (D) x 355 (H) mm		
Weight (With All Accessories in a Case)	Approx. 7.6 kg	Approx. 7.2 kg	Approx. 6.4 kg

\*1 When the balance weighing pan is used.

\*2 The AD-4212B-PT is equipped with a smart range function. The minimum weighing value will switch to 0.01 mg or 0.1 mg automatically when the mass value exceeds 5.1 g or 31 g respectively but can be reset to 0.001 mg by pressing the RE-ZERO (tare) key.

\*3 The standard accessories for the AD-4212B-PT / AD-4212A-PT / FX-300i-PT are different from those for the AD-4212B / AD-4212A / FX-300i.

## Pipette Specifications in accordance with ISO8655

Pipette Nominal Volume *4	ISO8655 Requirements (Gravimetric Method)				
	Maximum Permissible Error				Balance Minimum Weighing Value
	Accuracy (Systematic Error)		Repeatability (Random Error)		
( $\mu$ L)	$\pm\%$	$\pm\mu$ L	%	$\mu$ L	mg
1	5.0	0.05	5	0.05	0.001
2	4.0	0.08	2	0.04	
5	2.5	0.125	1.5	0.075	
10	1.2	0.12	0.8	0.08	0.01
20	1.0	0.2	0.5	0.1	
50	1.0	0.5	0.4	0.2	
100	0.8	0.8	0.3	0.3	0.1
200	0.8	1.6	0.3	0.6	
500	0.8	4.0	0.3	1.5	
1000	0.8	8.0	0.3	3.0	1*6
2000	0.8	16	0.3	6.0	
5000	0.8	40	0.3	15.0	
10000	0.6	60	0.3	30.0	
Daily inspection, simplified verification					

Corresponding Models \*5

AD-4212B-PT

AD-4212A-PT

FX-300i-PT

\*4 The maximum volume selectable for variable volume pipettes

\*5 The AD-4212B-PT can be used for the pipette volume range from 1  $\mu$ L to 10000  $\mu$ L.

\*6 The minimum weighing value, 1mg, corresponds to approximately 1  $\mu$ L. If a pipette volume is 1000  $\mu$ L, a test can be performed with a resolution of 0.1%. If 200  $\mu$ L, 0.5%.

Note) Make sure that the measurement environment is free from vibration, drafts and air from air conditioners.

### Gravimetric Method

The gravimetric method is the most common way of knowing the performance of variable-volume pipettes, in which pipette volume is determined based on the mass value of distilled water dispensed from the pipette.

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