

Weigh Modules

AD-4212D

Series



Best fit for in-line microgram weighing systems

AND
A&D Company, Ltd.

Discover Precision
www.aandd.jp

High Resolution, High Stability, Space-Saving and Cost-Saving

A&D's AD-4212D series meets today's increasing demand from the high-tech industry for in-line precision weighing by achieving a 1 µg readability to a capacity of 32 g and a 10 µg readability to a capacity of 320 g with short stabilization time, while keeping both the cost and the space required for installation to a minimum.

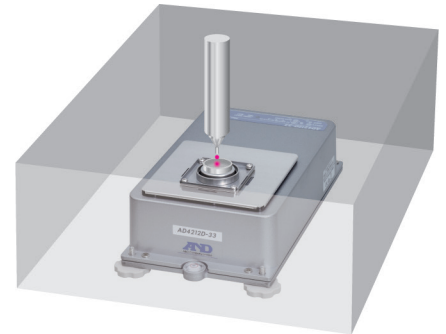
Minimum weighing value from 1 µg

The AD-4212D enables the most minute weight measurement and control for processes such as dispensing.

Direct connection to a PC or PLC

The AD-4212D is a weighing sensor with an integrated analog-to-digital converter. It can output weighing results as digital data directly to a PC or PLC*¹, which saves space when you do not need or have room for installing a separate display unit.

*1 A separately sold RS-232C cable for PC/PLC is required



Sensitivity adjustment using an internal weight

This function allows you to adjust the sensitivity of the AD-4212D to ensure its accuracy quickly, easily, and correctly.

Guarded against vertical and transverse overloading

A&D's patented shock absorber*² under the weighing pan copes with movement in all directions so that the sensor is protected from actuator malfunction.

*2 Not designed to handle impact loads

Adaptable to a special weighing pan

You can design and attach your preferred weighing pan (or receptacle) when the standard pan is unfit for your specific application.

Removable leveling feet

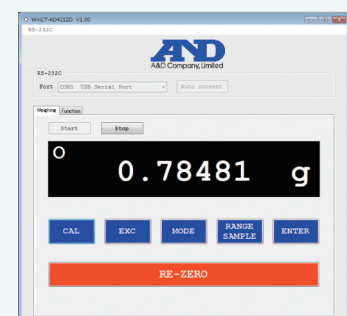
The AD-4212D can be secured directly to a base by removing the leveling feet and using screws.

High extensibility with various external devices

WinCT-AD4212D (freeware)*³

Running on your PC, WinCT-AD4212D can display weighing values in real time and be used to control the operation and change the internal settings of the AD-4212D.

*3 Available for download from A&D's website at aandd.jp



AD-8922A, AD-8923-BCD and AD-8923-CC Remote Controllers (all sold separately)



AD-8922A



AD-8923-BCD



AD-8923-CC

In addition to displaying weight values, performing re-zero, sensitivity adjustment, etc., the AD-8922A can output BCD, comparator or analog data by choosing the appropriate accessory. The AD-8923-BCD and AD-8923-CC can transmit the weighing data through BCD and CC-Link respectively.*4

AD-8526 RS-232C/Ethernet (TCP/IP) converter (sold separately)



Via the AD-8526, the RS-232C output from the AD-4212D can be converted and connected to LAN.

*4 The AD-8923-BCD/CC only displays the last six digits (but outputs the complete data).

WinCT-AD4212D, AD-8922A, AD-8923-BCD, AD-8923-CC, AD-8526

Specifications

Models	AD-4212D-33	AD-4212D-32	AD-4212D-302	AD-4212D-301
Capacity	32 g	5.1 g / 32 g* ⁱ	320 g	320 g
Readability	0.001 mg	0.001 mg / 0.01 mg	0.01 mg	0.1 mg
Repeatability (standard deviation)	0.002 mg* ⁱⁱ	0.004 mg* ⁱⁱ / 0.02 mg	0.02 mg* ⁱⁱⁱ	0.07 mg* ⁱⁱⁱ
Linearity	±0.02 mg	±0.03 mg	±0.15 mg	±0.25 mg
Stabilization time (typical when set to FAST)	Approx. 7 sec	Approx. 7 sec	Approx. 7 sec	Approx. 3 sec
Sensitivity drift	±2 ppm/°C (10 to 30 °C/50 to 86 °F)			
Operating environment	5 to 40 °C (41 to 104 °F), 85%RH or less (no condensation)			
Display refresh rate	5 times/second or 10 times/second			
I/O unit (RS-232C)	Bi-directional, 600-19200 bps			
Applicable calibration weight value	1 g, 2 g, 5 g, 10 g, 20 g, 30 g		10 g, 20 g, 50 g, 100 g, 200 g, 300 g	50 g, 100 g, 200 g, 300 g
Weighing pan size	Ø34 mm		Ø50 mm	
Dimensions	167.5(W) × 298(D) × 170(H) mm (with the small breeze break) 167.5(W) × 298(D) × 90(H) mm (without the small breeze break)			
Weight (excluding the small breeze break)	Approx. 3.6 kg			
Power supply	AC adapter			
Power consumption	Approx. 30 VA (supplied to the AC adapter)			
Standard accessories	Waterproof cap for cleaning, AC adapter, Small breeze break, Power plug stopper, RS-232C cable for the weight indicator (2 m), Weighing pan, Pan support, Screws for securing the pan support (flat head: M3 × 8)			

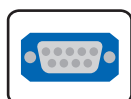
*i Smart range function: Automatically switches between the precision and standard ranges. Changes back to full precision range when the RE-ZERO (tare) operation is implemented.

*ii Repeatability for a 1 g mass using an automatic loading machine

*iii For a 10 g mass over the entire range



Internal Weight



RS-232C Interface



Underhook

Accessories

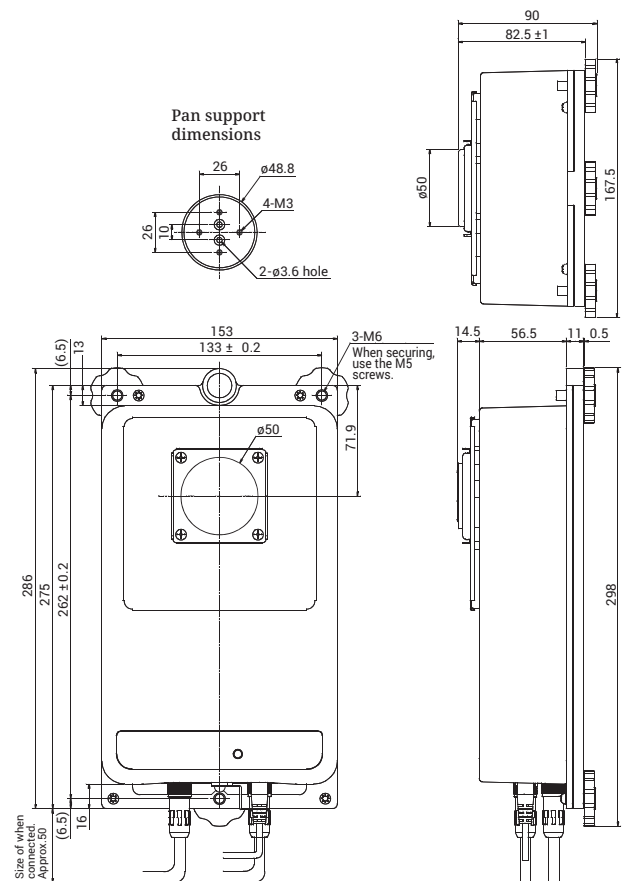
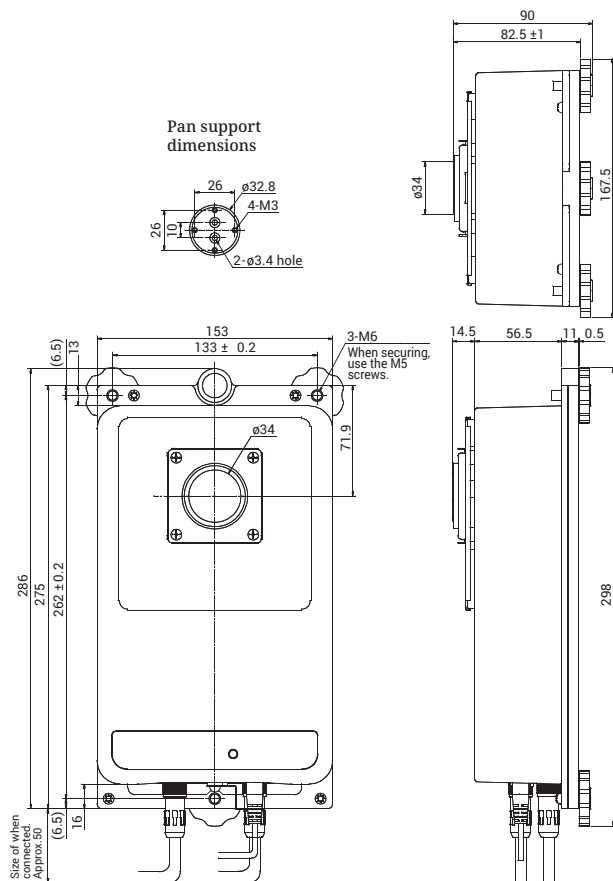
AD-1675	Tabletop breeze break (small)
AD-1683	Static eliminator
AD-1684A	Electrostatic field meter
AD-8127	Compact printer
AD-8526	RS-232C/Ethernet (TCP/IP) converter
AD-8922A	Remote controller
AD-8923-BCD	Remote controller (BCD)
AD-8923-CC	Remote controller (CC-Link)
AX-KO3590-1000	RS-232C cable (10 m, for A&D's external display)*iv
AX-KO4472-150	RS-232C cable (1.5 m, for a PC/PLC)
AX-KO4472-1000	RS-232C cable (10 m, for a PC/PLC)
AX-KO6406-1000	High-flex RS-232C cable (10 m, for A&D's external display)
AX-USB-9P	RS-232C/USB converter with cable

*iv 2 m cable is provided as standard

Dimensions (mm)

AD-4212D-33/32

AD-4212D-302/301



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