

GH

*Analytical
Semi-Micro Balances*



GH-252

250g x 0.1mg
101g x 0.01mg

GH-202

220g x 0.1mg
51g x 0.01mg

GH-300

320g x 0.1mg

GH-200

220g x 0.1mg

GH-120

120g x 0.1mg

HR-202i

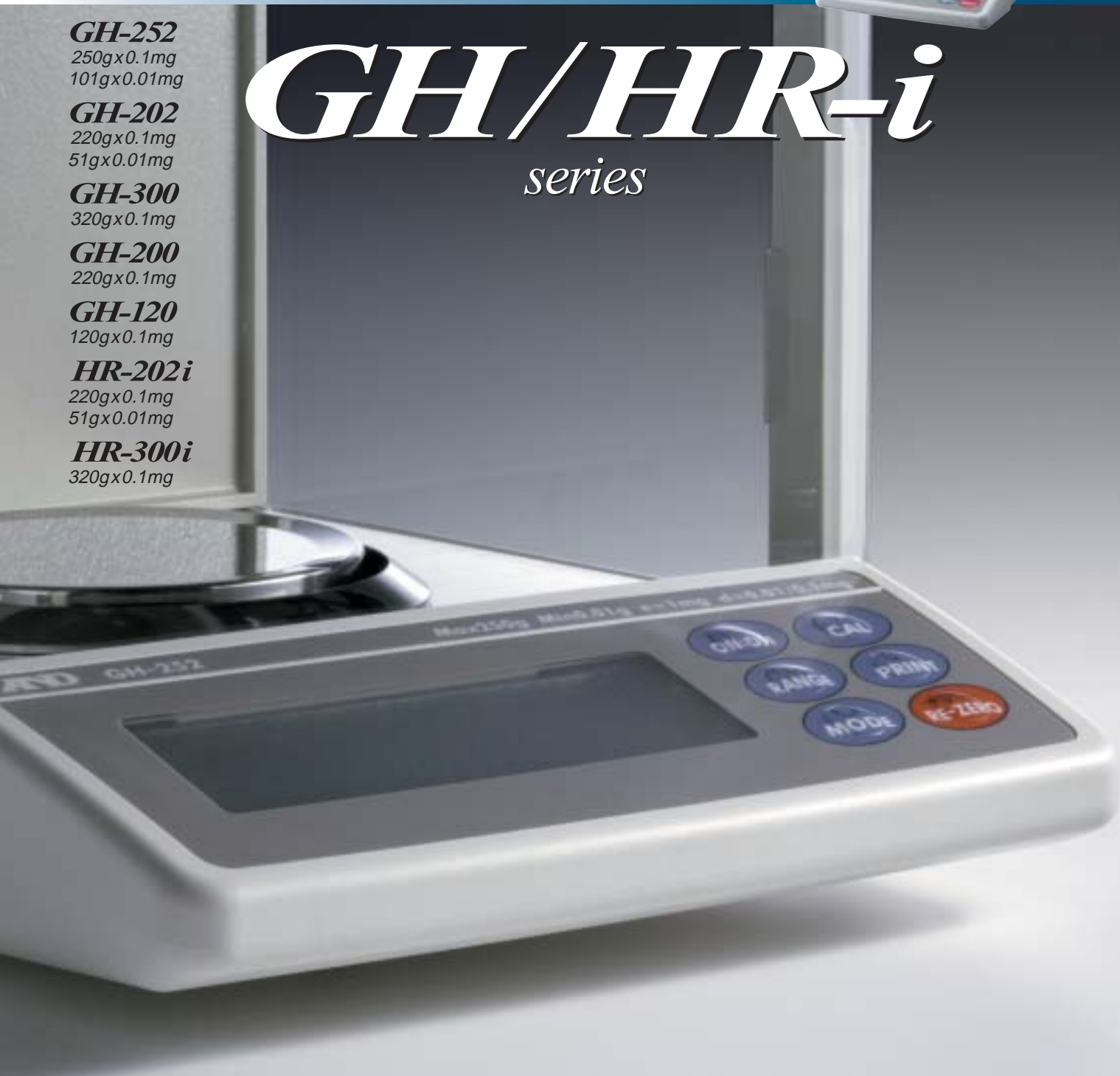
220g x 0.1mg
51g x 0.01mg

HR-300i

320g x 0.1mg

GH/HR-i

series



AND ...Clearly a Better Value
A&D Company, Limited
<http://www.aandd.jp>

High Performance up to 101g (GH-252), 0.01mg Sem Automatic Self-Calibration (GH) and Ergonomic Des Ethernet interface (GH-08) with WinCT-Plus software m multiple GH models possible expanding your Local A

Motor-driven Internal Calibration (GH models only)

The GH internal calibration with an internal mass saves time and money. External calibration requires a great deal of skill, time and an expensive external mass. With our internal calibration with internal mass, the balance is calibrated very quickly.

■ Automatic Self Calibration (GH models only)

Self-calibrates automatically when the balance detects ambient temperature changes.

■ One Touch Automatic Calibration (GH models only)

Allows you to calibrate the balance on demand with just the push of a button.



Standard RS-232C

Incorporates bi-directional communication with a PC, printer or other peripheral device.

Multiple Weighing Units

Uses programmable or standard units of measurement: g, mg, PCS (with ACAI* function), %, oz, ozt, ct, dwt, GN, tl, etc.

Data Memory Function (GH models only)

200 PCS Weighing data without date and time

100 PCS Weighing with date and time

50 PCS Calibration history data

GLP/GMP/GCP/ISO Compliance

Allows GLP or LIMS balance management by outputting the Balance ID number and data used to calibrate the balance. This data can be output to A&D's AD-8121B printer or a computer, indicating date, time, Balance ID number, serial number and calibration data.

ID Number

The balance ID number can be set. It is used to identify the balance when GLP in use.

The ID number is memorized and maintained once it is fixed, even when the AC adapter is removed.

Auto Power On Function

Plug in the unit and it turns itself on without having to press the ON/OFF key.

Time & Date (GH models only)

Standard Time & Date Function complies with GLP and Interval Weighing in the Data Memory Function.

Interval Time Setting (GH models only)

Weighing intervals of 2, 5, 10, 30 seconds and 1, 2, 5, 10 minutes in the Data Memory Function.

Standard Underhook

Ideal for density determination and weighing magnetic substances.

Auto Re-Zero Function

Re-zeroes automatically after data output.



Standard Windows Communication Tools Software

A free copy of WinCT - A&D's powerful and flexible data collection software tool for virtually instant connection to a PC and a network of other devices.

Ethernet Interface (GH-08) with WinCT-Plus software (CD-ROM)

WinCT-Plus software makes it possible for the user to easily set up an IP address, subnet mask etc. The user can also send commands to control and acquire data from multiple balances.



Provided by end-user

Ethernet Hub



Note: Ethernet Hub and cables must be provided by end-users

| | |
|------------------|------------|
| | A & D |
| MODEL | GH-308 |
| S/N | 01234567 |
| ID | LAB-0123 |
| DATE | 2004/07/01 |
| TIME | 12:34:56 |
| CALIBRATED(INT.) | |
| SIGNATURE | |

Mini-Micro Weighing Sign makes data acquisition using Area Network System.



GHI/HR-i



AD-1683EX Static eliminator

The AD-1683EX static eliminator, which incorporates a high-voltage power source, is a DC power-operated compact device which can eliminate static electricity from charged objects without the need of an external high-voltage power source. Since this static eliminator is compact and lightweight with no fan (no breeze is produced) and requires no high-voltage wiring, it is very easy to handle. It can generate ions very easily because it is a DC type.

Accessories

AX-054016580-S Discharge Electrode Pin



Options

AD8922-01 BCD Output
AD8922-04 Comparator Output
AD8922-05 Current Loop Input
AD8922-06 Analog Output (0-1V)

AD-8922 Remote controller

The AD-8922 is a remote controller that can be connected to certain A&D weighing instruments in order to display weighing data and control the weighing instrument using a keypad. (Access to the internal setting of a weighing instrument is not possible.)

Access Device

AD-8922 Key Functions

| | ON : OFF | CAL | SAMPLE | PRINT | MODE | RE-ZERO |
|--|------------------------------|--------------------------------|--|---|---------------------------------|---------------------------------------|
| GH, GP, GX, GX-K | Turns the display on and off | Calibrates using internal mass | Turns the minimum weighing value on and off (#1) | Output weighing data to an external device (#2) | Switches the weighing unit (#3) | Returns weighing value to zero (tare) |
| GR | | — | | | | |
| AD-4212, EK-H, GF, GF-K | — | — | — | — | — | — |
| HR, HR-i | — | — | — | — | — | — |
| EK-i, EW-i | — | — | — | — | — | — |
| EK-G, EW-G, FC-i, FC-Si, FG, FP, FS, FS-KL, HV-G, HV-WP, HW-G, HW-WP | — | — | — | — | — | — |

#1) Excluding PCS and % mode. #2) When the weighing machine is in stream mode, and AD-8922 is in key mode. #3) Excluding AD-4212

GH/HR-i Series Specifications

| | | GH-252 | GH-202 | GH-300 | GH-200 | GH-120 | HR-202i | HR-300i |
|---|-----------------------------|--|-----------------------------|---------------|---------------------|----------------------------|--|---------------------|
| Gram | (g) | 250x0.0001/101x0.00001 | 220x0.0001/51x0.00001 | 320x0.0001 | 220x0.0001 | 120x0.0001 | 220x0.0001/51x0.00001 | 320x0.0001 |
| | (mg) | 250000x0.1/101000x0.01 | 220000x0.1/51000x0.01 | 320000x0.1 | 220000x0.1 | 120000x0.1 | 220000x0.1/51000x0.01 | 320000x0.1 |
| Decimal Ounce (oz) | | 8.82x0.00001/3.56x0.000001 | 7.76x0.00001/1.80x0.000001 | 11.29x0.00001 | 7.76x0.00001 | 4.23x0.00001 | 7.76x0.00001/1.80x0.000001 | 11.29x0.00001 |
| Troy Ounce (ozt) | | 8.04x0.00001/3.25x0.000001 | 7.07x0.00001/1.64x0.000001 | 10.29x0.00001 | 7.07x0.00001 | 3.86x0.00001 | 7.07x0.00001/1.64x0.000001 | 10.29x0.00001 |
| Pennyweight (dwt) | | 160.8x0.0001/64.9x0.00001 | 141.5x0.0001/32.8x0.00001 | 205.8x0.0001 | 141.5x0.0001 | 77.2x0.0001 | 141.5x0.0001/32.8x0.00001 | 205.8x0.0001 |
| Carat (ct) | | 1250x0.001/505x0.0001 | 1100x0.001/255x0.0001 | 1600x0.001 | 1100x0.001 | 600x0.001 | 1100x0.001/255x0.0001 | 1600x0.001 |
| Momme (mom) | | 66.7x0.0001/26.9x0.00001 | 58.7x0.0001/13.6x0.00001 | 85.3x0.0001 | 58.7x0.0001 | 32.0x0.0001 | 58.7x0.0001/13.6x0.00001 | 85.3x0.0001 |
| Grain Unit (GN) | | 3858x0.002/1559x0.0002 | 3395x0.002/787x0.0002 | 4938x0.002 | 3395x0.002 | 1852x0.002 | 3395x0.002/787x0.0002 | 4938x0.002 |
| Tola (t) | | 21.43x0.00001/8.66x0.000001 | 18.86x0.00001/4.37x0.000001 | 27.44x0.00001 | 18.86x0.00001 | 10.29x0.00001 | 18.86x0.00001/4.37x0.000001 | 27.44x0.00001 |
| Tael (TL) | | 6.67x0.00001/2.69x0.000001 | 5.87x0.00001/1.36x0.000001 | 8.53x0.00001 | 5.87x0.00001 | 3.20x0.00001 | 5.87x0.00001/1.36x0.000001 | 8.53x0.00001 |
| Repeatability (Standard Deviation) | | 0.1mg / 0.03mg | 0.1mg / 0.02mg | 0.2mg | 0.1mg | 0.1mg | 0.1mg / 0.02mg | 0.2mg |
| Linearity | | ±0.2mg / ±0.10mg | ±0.2mg / ±0.03mg | ±0.3mg | ±0.2mg | ±0.2mg | ±0.2mg / ±0.03mg | ±0.3mg |
| Stabilization Time (typical at FAST) | | Approx. 3.5 sec (0.1mg) / 8 sec (0.01mg) | | | Approx. 3.5 seconds | | Approx. 3.5 sec (0.1mg) / 8 sec (0.01mg) | Approx. 3.5 seconds |
| Sensitivity Drift (10°C to 30°C) | | ±2ppm/°C (when automatic self calibration is not used) | | | | | | |
| Operating Temperature | | 5°C to 40°C (41 F to 104 F), 85%RH or less (no condensation) | | | | | | |
| Display Type | | Liquid Crystal Display (LCD) | | | | | | |
| Display Refresh Rate | | 5 times/second or 10 times/second | | | | | | |
| Counting Mode | Minimum unit mass | 0.1mg | | | | | | |
| | Number of samples | 10, 25, 50 or 100 pieces | | | | | | |
| Percent Mode | Minimum 100% reference mass | 10.0mg | | | | | | |
| | Minimum 100% display | 0.01%, 0.1%, 1% (Depends on reference mass stored) | | | | | | |
| Standard Serial I/F | | RS-232C interface with Windows Communication Tools (WinCT : included as CD-ROM) | | | | | | |
| Calibration Weights to be used for External Calibration | | 200g 100g 50g 20g | 300g 200g 100g | 200g 100g | 100g 50g | 200g 100g 50g 20g | 300g 200g 100g | |
| Weighing Pan | | Ø90mm | | | | | | |
| External Dimensions | | 217(W) x 442(D) x 316(H)mm | | | | | | |
| Power | | Confirm that the adapter type is correct for the local voltage and power receptacle (Approx. 11VA) | | | | | | |
| Weight | | Approx. 8.2kg(GH) / 7.9kg(HR-i) | | | | | | |
| Standard Accessories | | WinCT in CD-ROM, Manual, AC Adapter | | | | | | |

Options

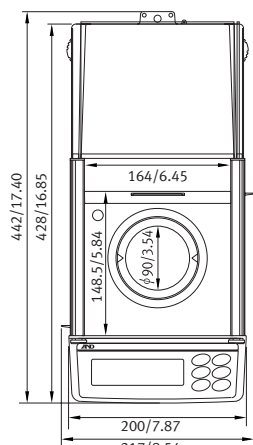
GH-08 Ethernet Interface

Accessories

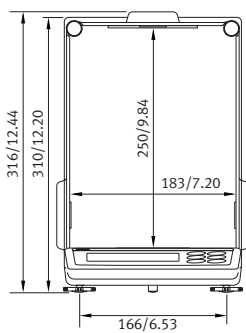
AD-1653 Density Determination Kit
 AD-1683EX Static Eliminator
 AD-8121B Dot Matrix Compact Printer
 AD-8922 Remote Controller
 AD-8920 Remote Display
 AX-KO 2466-200 RS-232C Cable(9P-9P,2m)



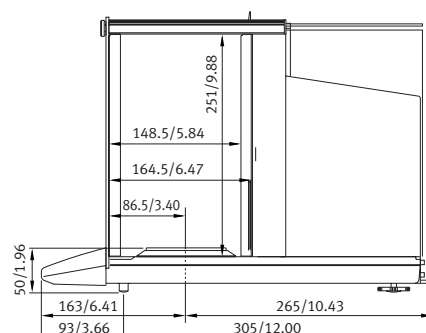
Dimensions (mm/inches)



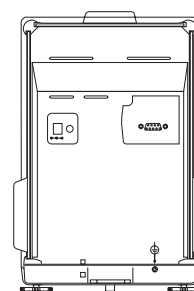
Top View



Front View



Side View



Rear View

AND

...Clearly a Better Value

A&D Company, Limited

3-23-14 Higashi-Ikebukuro, Toshima-ku, Tokyo 170-0013 JAPAN
 Telephone:[81](3) 5391-6132 Fax:[81](3) 5391-6148
 http://www.aandd.jp

A&D ENGINEERING, INC.

1555 McCandless Drive, Milpitas, CA. 95035 U.S.A.
 Telephone:[1](408) 263-5333 Fax:[1](408) 263-0119

A&D MERCURY PTY. LTD.

32 Dew Street, Thebarton, South Australia 5031 AUSTRALIA
 Telephone:[61](8) 8301-8100 Fax:[61](8) 8352-7409

A&D INSTRUMENTS LTD.

Unit 24/26 Blacklands Way Abingdon Business Park,
 Abingdon, Oxon OX14 1DY United Kingdom
 Telephone:[44](1235) 550420 Fax:[44](1235) 550485

<German Sales Office>

Große Straße 13 b 22926 Ahrensburg GERMANY
 Telephone:[49](0) 4102 459230 Fax:[49](0) 4102 459231

A&D KOREA Limited

Manhattan Bldg. 8F, 36-2 Yoido-dong, Youngdeungpo-gu, Seoul, KOREA
 Telephone:[82](2) 780-4101 Fax:[82](2) 782-4280