Precision Balances

FX-i Series

FX-120i 122g x 0.001g
FX-200i 220g x 0.001g
FX-300i 320g x 0.001g
FX-1200i 1220g x 0.01g
FX-2000i 2200g x 0.01g
FX-3000i 3200g x 0.01g

A&D Company Limited

A&D Weighing
...Clearly a Better Value
Realizing Compact, Increased Accuracy

We have developed a Miniaturized SHS (Super Hybrid Sensor) t}
which is 40% lighter and 47% smaller than our GF series with a
while maintaining A&D’s superior weighing functions.

B5 size footprint
Ideal for installation and use in narrow spaces

Compact SHS (Super Hybrid Sensor) – 1 second stabilization
Quick stabilization speed with accurate weighing for better productivity

VFD – Vacuum Fluorescent Display
Large VFD for easy-to-read weighing results

SCF – Statistical Calculation Function
Can display and/or output statistical calculation data as No. (number of data), SUM (total), MAX (maximum), MIN (minimum),
R [range (maximum – minimum)], AVE (average), SD (standard deviation) and CV (coefficient of variation)

Quick USB interface (FXi-02)
Easy-to-use optional USB interface, with no driver installation necessary, for transfer of weighing data to a computer (applicable OS – Windows 98 OSR2 or later)

Standard RS-232C interface
Incorporates bi-directional communication with a PC, printer or other peripheral devices

GLP/GMP/GCP/ISO Compliant
In accordance with GLP and LIMS regulations, the balance ID number and calibration data can be printed out using A&D’s
AD-8121B or a PC

Comparator function
Easy to compare weighing results by setting HI limit and LO limit to display HI,OK,LO indicator

Buzzer function
A beeping sound to indicate HI, LO or OK can be selected for use with the comparator function

Digital calibration function
Simple and easy to calibrate the balance with external calibration mass and possible to adjust the mass accuracy by ±50 digits

Built-in rechargeable battery (FXi-09)
An optional Ni-MH rechargeable battery pack can be fitted into the FX-i series for use without AC power and for mobile applications (10 hours charging time for 8 hours operation)

Multiple weighing units of measurement
Programmable or standard weighing units of measurement can be selected; g, pcs, %, oz, lb, L oz, ozt, ct, mom, dwt, GN, tl, tol, mes and MLT

Response Indicator function
Selectable FAST, MID or SLOW response to suit weighing environment conditions

LAN – Ethernet interface (FXi-08) with WinCT-Plus software
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 for control and acquisition
of data from multiple FX-i balances

Note: Ethernet Hub and cables must be provided by end-users.
**Animal weighing function**
The HOLD function enables freezing of weighing data for animal weighing applications and an ANIMAL indicator appears on the display.

**ACAI – Automatic Counting Accuracy Improvement**
This counting function recalculates the average unit weight each time a sample is added to eliminate errors caused by variations in unit weight.

**Percent mode function**
A sample can be registered as 100% and the weight of another sample can be compared as a percentage.

**Underhook**
The underhook, for hanging applications, allows for measurement of magnetic materials and density measurements in air and water.

**Auto Power ON function**
The weighing mode display activates automatically with AC power so there is no need to press the ON/OFF key.

**Auto Power OFF function**
The display switches OFF automatically when the balance is inactive for 10 minutes as a power-saving tool.

**Capacity indicator function**
Weight on the pan displayed as a percentage of full capacity.

**Breeze breaks**
Small and large breeze breaks are available to protect against wind for more accurate weighing. The small breeze break comes as standard with the FX-120i, FX-200i and FX-300i which are all 0.001g weighing resolution models.

**EMC – Electromagnetic Compatibility**
The FX-i meets EMC regulations and is immune to the effects of electromagnetic fields of up to 10V/m.
## Specifications

<table>
<thead>
<tr>
<th></th>
<th>FX-120i</th>
<th>FX-200i</th>
<th>FX-300i</th>
<th>FX-1200i</th>
<th>FX-2000i</th>
<th>FX-3000i</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sensing method</strong></td>
<td>Compact Super Hybrid Sensor (SHS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Gram (g)</strong></td>
<td>122x0.001</td>
<td>220x0.001</td>
<td>320x0.001</td>
<td>1220x0.001</td>
<td>2200x0.01</td>
<td>3200x0.01</td>
</tr>
<tr>
<td><strong>Decimal Ounce (oz)</strong></td>
<td>4.30x0.00005</td>
<td>7.76x0.00005</td>
<td>11.28x0.00005</td>
<td>43.0x0.00005</td>
<td>77.6x0.00005</td>
<td>112.8x0.00005</td>
</tr>
<tr>
<td><strong>Pound (lb)</strong></td>
<td>0.268x0.00005</td>
<td>0.485x0.00005</td>
<td>0.705x0.00005</td>
<td>2.68x0.00005</td>
<td>4.85x0.00005</td>
<td>7.05x0.00005</td>
</tr>
<tr>
<td><strong>Pound / Ounce (L. oz)</strong></td>
<td>0.4.30ozx0.01oz</td>
<td>0.776ozx0.01oz</td>
<td>1.128ozx0.01oz</td>
<td>4.3ozx0.01oz</td>
<td>7.76ozx0.01oz</td>
<td>11.28ozx0.01oz</td>
</tr>
<tr>
<td><strong>Troy Ounce (ozt)</strong></td>
<td>3.92x0.00005</td>
<td>7.07x0.00005</td>
<td>10.28x0.00005</td>
<td>39.2x0.00005</td>
<td>70.7x0.00005</td>
<td>102.8x0.00005</td>
</tr>
<tr>
<td><strong>Carat (ct)</strong></td>
<td>61x0.005</td>
<td>110x0.005</td>
<td>160x0.005</td>
<td>610x0.005</td>
<td>1100x0.005</td>
<td>1600x0.005</td>
</tr>
<tr>
<td><strong>Momme (morn)</strong></td>
<td>32.2x0.0005</td>
<td>58.6x0.0005</td>
<td>85.3x0.0005</td>
<td>322x0.0005</td>
<td>586x0.0005</td>
<td>853x0.0005</td>
</tr>
<tr>
<td><strong>Pennyweight (dwt)</strong></td>
<td>78.6x0.001</td>
<td>141.7x0.001</td>
<td>206.2x0.001</td>
<td>786x0.01</td>
<td>1417x0.01</td>
<td>2062x0.01</td>
</tr>
<tr>
<td><strong>Grain (GN)</strong></td>
<td>1882x0.02</td>
<td>3395x0.02</td>
<td>4938x0.02</td>
<td>18827x0.2</td>
<td>33951x0.2</td>
<td>49383x0.2</td>
</tr>
<tr>
<td><strong>Tael (TL)</strong></td>
<td>3.22x0.00005</td>
<td>5.82x0.00005</td>
<td>8.46x0.00005</td>
<td>32x0.0005</td>
<td>58x0.0005</td>
<td>84.6x0.0005</td>
</tr>
<tr>
<td><strong>Tola (t)</strong></td>
<td>10.4x0.0001</td>
<td>18.8x0.0001</td>
<td>27.4x0.0001</td>
<td>104x0.001</td>
<td>188x0.001</td>
<td>274x0.001</td>
</tr>
<tr>
<td><strong>Messing (MS)</strong></td>
<td>26.0x0.0005</td>
<td>46.9x0.0005</td>
<td>68.2x0.0005</td>
<td>260x0.005</td>
<td>469x0.005</td>
<td>682x0.005</td>
</tr>
</tbody>
</table>

| **Counting Mode**     | Minimum unit mass | 0.001g | 0.01g | 0.100g | 1.00g |
| **Percent Mode**      | Minimum 100% reference mass | 0.01g | 0.01g | 0.01g | 0.01g |
| **Repeatability**     | (Standard Deviation) | ±0.002g | ±0.002g | ±0.002g | ±0.002g |
| **Linearity**         | ±0.002g | ±0.002g | ±0.002g | ±0.002g | ±0.002g | ±0.002g |
| **Stabilization time**| (typically set at FAST) | Approx. 1 second | Approx. 1 second | Approx. 1 second | Approx. 1 second | Approx. 1 second |
| **Sensitivity drift** | (10°C to 30°C) | ±2ppm °C | ±2ppm °C | ±2ppm °C | ±2ppm °C | ±2ppm °C |
| **Operating temperature** | 5°C to 40°C (41°F to 104°F), 85% RH or less (No condensation) | 5°C to 40°C (41°F to 104°F), 85% RH or less (No condensation) | 5°C to 40°C (41°F to 104°F), 85% RH or less (No condensation) | 5°C to 40°C (41°F to 104°F), 85% RH or less (No condensation) | 5°C to 40°C (41°F to 104°F), 85% RH or less (No condensation) | 5°C to 40°C (41°F to 104°F), 85% RH or less (No condensation) |
| **Display type**      | Vacuum Fluorescent Display (VFD) | Vacuum Fluorescent Display (VFD) | Vacuum Fluorescent Display (VFD) | Vacuum Fluorescent Display (VFD) | Vacuum Fluorescent Display (VFD) | Vacuum Fluorescent Display (VFD) |
| **Display refresh rate** | 5 times /second, 10 times /second or 20 times /second | 5 times /second, 10 times /second or 20 times /second | 5 times /second, 10 times /second or 20 times /second | 5 times /second, 10 times /second or 20 times /second | 5 times /second, 10 times /second or 20 times /second | 5 times /second, 10 times /second or 20 times /second |
| **Weighing pan (diameter)** | 130mm | 150mm |
| **External calibration mass** | 100g | 200g | 300g | 1000g | 2000g | 3000g |
|                        | 50g   | 100g  | 200g  | 500g  | 1000g | 2000g |

**AC adaptor**

Confirm that the adaptor type is correct for the local voltage and power receptacle.

**Power consumption**

Approx. 11VA (supplied to the AC adaptor)

**External dimensions**

193 (W) x 262.5 (D) x 84.5 (H) mm

**Net weight**

Approx. 2.5kg

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## Options

**FX-02**

Quick USB interface with cable

**FX-08**

Ethernet interface with WinCT-Plus software

**FX-09**

Built-in rechargeable battery

**FX-10**

Small breeze break

**FX-11**

Large breeze break

* FX-02, FX-08 and FX-09 cannot be used at the same time.

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## Accessories

**AD-1683**

Static eliminator

**AD-8920**

Remote display

**AD-8922**

Remote controller

**AD-8121B**

Compact Printer

**AD-8526**

RS/Ethernet converter

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## External Dimensions (mm/ inches)

**Pan size**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FX-120 / 200 / 300</td>
<td>130 / 5.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FX-1200 / 2000 / 3000</td>
<td>198 / 7.81</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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## Dimensions with Small Breeze Break (FX-10)

Comes equipped with FX-120 / 200 / 300

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![FX-02](image-url)