

(UK 2824)

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United Kingdom of Great Britain and Northern Ireland

**Certificate of EC type-approval of a
measuring instrument**

Number: UK 2824

issued by the Secretary of State for Innovation, Universities & Skills
Notified Body Number 0126

In accordance with the requirements of the Non-automatic Weighing Instruments Regulations 2000 (SI 2000/3236) which implement, in the United Kingdom, Council Directive 90/384/EEC, this certificate of EC type-approval has been issued to:

**A&D Instruments Ltd
24 Blacklands Way
Abingdon Business Park
Abingdon, Oxon, OX14 1DY
United Kingdom**

in respect of a Class III non-automatic weighing instrument designated the FS-i Series.

$6 \text{ kg} \leq \text{Maximum capacity} \leq 30 \text{ kg}$
Minimum capacity $\geq 20e$
 $e \geq 2 \text{ g}$
 $n \leq 3000$

The necessary data (principal characteristics, alterations, securing, functioning etc) for identification purposes and conditions (when applicable) are set out in the descriptive annex to this certificate.

Signatory: P R Dixon
for Chief Executive
National Weights & Measures Laboratory
Department for Innovation, Universities & Skills
Stanton Avenue
Teddington
Middlesex TW11 0JZ
United Kingdom

Date: 30 July 2007
Valid Until: 29 July 2017
Reference No: T1128/0102

Descriptive Annex

1 NAME AND TYPE OF INSTRUMENT

The A&D Mercury FS-Series is a Class III, mains-powered, self-indicating, non-automatic weighing instrument. The instrument has various capacities, as listed in section 3.2. The instrument may also work on a 6V sealed lead acid battery.

2 DESCRIPTION

2.1 Construction

2.1.1 Mechanical

The A&D Mercury FS-i Series weighing instrument (Figure 1) comprises:

- Stainless steel weigh platform, with level bubble and four adjustable feet for levelling, comprising the load cell
- Pole mounted backlit LCD display unit containing the principal electronics

2.1.2 Devices

- Initial zero setting device ($\leq 20\%$ of Max)
- Semi-automatic zero setting device ($\leq 4\%$ of Max)
- Zero-tracking ($\leq 4\%$ of Max with corrections ≤ 0.5 d / second)
- Subtractive tare ($T = - \text{Max}$)
- Tare balancing
- Preset tare

2.2 Load cell

The load cell is as detailed in section 3.2.

2.3 Display

The pole mounted display module comprises a backlit LCD display panel, with one display of 7 segment digits, at 18.6 mm high and a second display of 60 segments for an analogue sweep. The instrument has the additional functionality of displaying 'LO/OK/HI' limits on the indicator for check weighing. The primary weight is always displayed even when the check weighing functionality is in use.

3 TECHNICAL DATA

3.1 Power supply

The instrument is mains powered (230 VAC, 50/60 Hz), but may also work on a 6V sealed lead acid battery.

3.2 Various capacities

Model	Max. Capacity	Min. Capacity	Verification Scale Interval (e)	Platform Size	Load Cell
FS-6Ki	6 kg	0.040 kg	0.002 kg	250 x 250 mm	LC 156-6 K
FS-15Ki	15 kg	0.100 kg	0.005 kg	250 x 250 mm	LC 156-15 K
FS-30Ki	30 kg	0.200 kg	0.010 kg	380 x 300 mm	LC 157-30 K

4 PERIPHERAL DEVICES AND INTERFACES

4.1 Peripheral devices

Simple recipient devices that:

- bear the CE marking of conformity to the EMC Directive, 89/336/EEC;
- are not capable of transmitting any data or instructions into the instrument other than to release a printout or to check for correct data transmission;
- print or indicate weighing results and other data as received from the instrument without any modification or further processing; and
- comply with the applicable requirements of EN45501, i.e. 4.2, 4.4, 4.5, 4.6 and 4.7,

may be connected to an instrument which transmits data in accordance with 5.3.6.3 of EN45501 without a Test Certificate having been issued. A printing device may print additional information such as date or number, to identify the printed weighing result(s) or sets of weighing results.

4.2 Interfaces

The instrument has RS232C serial interface connectivity for providing connections to peripheral devices.

5 APPROVAL CONDITIONS

This certificate is issued subject to the following conditions:

5.1 Legends and inscriptions

5.1.1 The display module bears the following legends on or near the display:

Max

Min

e =

T = (if less than Max)

5.1.2 The instrument shall bear the following legends:

CE marking

Verification mark

Green M

Accuracy class

Serial number

Manufacturer's mark or name

Certificate number

The markings and inscriptions shall fulfil the requirements of Paragraph 1 of Annex IV of the Directive 90/384/EEC.

6 SECURING AND VERIFICATION MARKS

6.1 The data plate is located on top of the display panel. It is secured by being of a form such that it is destroyed when removed.

6.2 Access to the calibration switch is inhibited using a CAL switch cover on the back of the display panel. The CAL switch shall be sealed as shown in Figure 2. The seal shall carry The Mark of Verification. Removal of seal deems the instrument not verified.

6.3 Components that may not be dismantled or adjusted by the user must be secured by a suitable mark placed over the securing screws of the housing. The securing mark may be either:

- a mark of the manufacturer and/or manufacturer's representative, or
- an official mark of a verification officer

6.4 Verification marks, and the CE-marking, are located on, or adjacent to, the data plate.

7 ALTERNATIVES

7.1 There are currently no alternatives.

8 ILLUSTRATIONS

Figure 1 FS-i Series (FS-30Ki)

Figure 2 Calibration switch sealing

CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
UK 2824	30 July 2007	Type approval first issued
-	-	No revisions have been issued.



Figure 1 FS-i Series (FS-30Ki)



Figure 2 Calibration switch sealing

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NATIONAL WEIGHTS AND MEASURES LABORATORY

Department for Innovation, Universities & Skills