EC type-approval certificate

Number **T7678** revision 0
Project number 9200355

Issued by	NMi Certin B.V. Hugo de Grootplein 1 3314 EG Dordrecht The Netherlands
In accordance with	The Council Directive 2009/23/EC on non-automatic weighing instruments.
Manufacturer	A&D Instruments Ltd. 24 Blacklands Way Abingdon Business Park OX14 1DY Abingdon Oxfordshire United Kingdom
In respect of	A class (II), electronic, single-interval **non-automatic weighing instrument**. Manufacturer mark/name: A&D Type : FZ-i series
Characteristics	122 g ≤ Max ≤ 3200 g 10 mg ≤ e < 1 g n ≤ 32000 divisions Temperature range +10 °C / +30 °C In the description number T7678 revision 0 further characteristics are described.
Valid until	17 May 2020
Description and documentation	The instrument is described in the description number T7678 revision 0 and documented in the documentation folder T7678-1, appertaining to this EC type-approval certificate.

The Notified Body no. 0122
NMi Certin, 17 May 2010

C. Oosterman
Head Certification Board

NMi Certin B.V.
Hugo de Grootplein 1
3314 EG Dordrecht
The Netherlands
T +31 78 6332332
certin@nmi.nl
www.nmi.nl

1 General information about the non-automatic weighing instrument

All properties of the non-automatic weighing instrument, whether mentioned or not, may not be in conflict with the legislation.

1.1 Essential parts

The electronics;
The mechanical assembly with weighing cell.

1.2 Essential characteristics

Power supply: 100 - 240 V AC to 12 V DC adapter.

1.3 Essential shapes

The non-automatic weighing instrument is built according to the drawings:
- Type, drawing number FZ-001.

The data plate is secured against removal by sealing or will be destroyed when removed.
To secure components that may not be dismantled or adjusted by the user, the non-automatic weighing instrument has to be secured in a suitable manner on the locations indicated in the drawing:
- Markings and sealing, drawing number FZ-002.

Inside the cabinet is a calibration lock, located on the main board.

1.4 Conditional parts

The non-automatic weighing instrument may be equipped with peripheral equipment which is used for the applications listed in article 1(2)(a) of Directive 2009/23/EC, if the peripheral equipment is certified to be connected to an EC type-approved non-automatic weighing instrument by a Notified Body responsible for type examination under Directive 2009/23/EC.
The non-automatic weighing instrument is fitted with a levelling device and a level indicator, unless the instrument is installed in a fixed position. A ring on the level indicator indicates when the maximum tilt is exceeded.

1.5 Non-essential parts

The non-automatic weighing instrument may be connected to non-essential devices, for example but not limited to bar code readers, foot switches, second display's and cash drawers, provided that:
- They do not present primary data used for purposes mentioned in article 1(2)(a) of Directive 2009/23/EC unless the "preliminary observations" in Annex 1 of this directive is satisfied;
- They do not lead to an instrument having other essential characteristics than those fixed by this type-approval document.

Internal battery;
AC/DC-adapter.

2 Information about the main constituent parts of the non-automatic weighing instrument

2.1 The electronics

2.1.1 Essential parts

Description	Drawing number	Rev.	Remarks
A/D board	FZ-004C	-	Layout including parts list
Main board	FZ-004A FZ-004B Parts list for PCB's (7PZ+4600-4602, 4620 A)	-	Layout (side A) Layout (side B) Parts list (2 pages)

2.1.2 Essential characteristics

List of devices:
- Determination stability of equilibrium, with fast, medium or slow response;
- Combined semi-automatic zero-setting and subtractive tare balancing;
- Initial zero-setting;
- Zero-tracking;
- Initial subtractive tare balancing;
- Indication of stable equilibrium;
- Calibration / set-up mode via a switch on the power source board;
- Automatic span adjustment with internal calibration mass;
  operational after:
  - after switch on
  - $\Delta t \leq 3$ °C
  - completing a fixed algorithm
- Semi-automatic span adjustment with external calibration mass via a switch on the power source board;
- Acting upon significant faults;
- Checking the display;
- Weighing unstable samples;
- Weight unit selection (g, mg);
- Percentage mode;
- Piece counting mode;
- Statistical calculation mode.

2.1.3 Conditional parts

The interface section is located on the power source board or on a separate interface board. The non-automatic weighing instrument may be equipped with one or more of the following protective interfaces that have not to be secured:
- RS232C;
- USB;
- Ethernet.

2.1.4 Non-essential parts

Display;
Keyboard;
Power source board.

2.2 The mechanical assembly with weighing cell

2.2.1 Essential parts

Description	Drawing number	Rev.	Remarks
Exploded view	FZ-005A	-	
Weighing cell	FZ-005B FZ-005C	-	

2.2.2 Essential characteristics

Weighing cells with a maximum capacity of 320 g have a verification scale interval of 10 mg;
Weighing cells with a maximum capacity of 3200 g have a verification scale interval of 100 mg.

2.2.3 Essential shapes

See drawings:
- Weighing cell drawing numbers FZ-005B and FZ-005C.

3 Approval conditions

See chapter 1.3, essential shapes.

4 Seals and verification marks

See chapter 1.3, essential shapes.

5 CE-mark of conformity and inscriptions

The marks, facilities for the marks and the inscriptions on the non-automatic weighing instrument fulfill the requirements of article 1 of Annex IV of Directive 2009/23/EC.