Nederlands Meetinstituut

EC type-approval certificate

Number **T5328** revision 4
Project number 10115102

Issued by	NMi Certin B.V. Hugo de Grootplein 1 3314 EG Dordrecht The Netherlands Notified Body Number 122
In accordance with	The Council Directive 90/384/EEC on non-automatic weighing instruments.
Applicant	A&D Instruments Ltd. Abingdon Science Park Abingdon, Oxford, OX 14 3YS United Kindom
In respect of	A class (III), graduated, electronic, single-interval **non-automatic weighing instrument**, intended to be used for direct sales to the public. Manufacturer : A&D Type : SF and SG
Characteristics	$n \leq 3000$ divisions $6\ kg \leq Max \leq 30\ kg$ $e \geq 2\ g$ In the description T5328 revision 4 further characteristics are described.
Valid until	6 August 2008
Description and documentation	The instrument is described in the description number T5328 revision 4 and documented in the documentation folder T5328-1, appertaining to this EC type-approval certificate.
Remarks	This revision replaces the earlier version, except for its documentation folder.

Delft, 8 February, 2000
NMi Certin B.V.

Ms. B. van Broekhoven
Manager Certification Delft

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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 standard mentioned in the test certificate.

1.1 Essential parts

- The electronics;
- The mechanical assembly with load cell.

EMC protection measures:
- the A to D board is shielded.

1.2 Essential characteristics

Power supply:
- 100 V, 120 V or 230 V AC, 50/60 Hz;
- 6 V - 10 V DC supplied by AC/DC adapter, or battery.

1.3 Essential shapes

The non-automatic weighing instrument is built according to drawing Figure 1 The Type, drawing number KF/KG001.
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 Figure 3 Sealing, drawing number KF/KG003. The securing component has to bear either:
- a mark of the manufacturer laid down in a notified body approved quality system (annex II of the directive 90/3834/EEC), or
- an official mark of a Member State of the EEC, or an other party to the EEA agreement.

Inside the casing is a calibration switch, located on the main board of the non-automatic weighing instrument.

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 the EC-directive (90/384/EEC), if the peripheral equipment is certified to be connected to an EC type-approved non-automatic weighing instrument by a Notified Body appointed to certify non-automatic weighing instruments according to paragraph I of Annex II of the EC directive on Non-Automatic Weighing Instruments.
The non-automatic weighing instrument may be equipped with an Electronic Point of Sale (EPoS) or an Electronic Cash Register (ECR), if these EPoS and ECR are certified to be connected to an EC type-approved non-automatic weighing instrument by a Notified Body appointed to certify non-automatic weighing instruments according to paragraph I of Annex II of the EC-directive on Non-Automatic Weighing Instruments.
A level indicator with a sensitivity of at least 2 mm for a tilt of 2/1000.

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 the EC-directive (90/384/EEC) 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.

AC/DC-adapter;
DC/DC-converter for the display.

1.6 Non-essential shapes

The instrument can have several scoops on the load receptor.

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
Fig 4 Block diagram	KF/KG004	-	
Fig 5 KF/KG Main board Component list and layout	QD-KZ3-000291	-	

2.1.2 Essential characteristics

List of devices:
- determination of stable equilibrium;
- changing from price/kg to price/100 g;
- semi-automatic calibration;
- initial zero-setting;
- semi-automatic zero-setting;
- zero-tracking;
- semi-automatic subtractive tare balancing;
- price calculation;
- PLU's;
- display checking.

When a printer is connected the following devices may be present:
- totalisation;
- non weighed articles function;
- memory storage.

2.1.3 Conditional parts

The non-automatic weighing instrument may be equipped with one or more of the following protective interfaces that have not to be secured:
- RS232C.

2.2 The mechanical assembly with load cell

2.2.1 Essential parts

Description	Drawing number	Rev.	Remarks
Exploded view	KF-A series	-	
Exploded view	KF-B series	-	
Exploded view	KF-C series	-	
Exploded view	KG series	-	

2.2.2 Essential characteristics

$e \geq E_{max} / 4000$;
Excitation power supply 5 V DC.

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 fulfil the requirements of article 1 of Annex IV.