

Issued by	NMi Certin B.V. Hugo de Grootplein 1 3314 EG Dordrecht The Netherlands
In accordance with	The Council Directive 90/384/EEC on non-automatic weighing instruments.
Applicant	A&D Instruments Ltd. 24 Blacklands Way Abingdon Business Park Abingdon, Oxfordshire OX14 1DY United Kingdom
In respect of	A class I , graduated, self-indicating, electronic, single- interval non-automatic weighing instrument . Manufacturer : A&D Type : GR-EC
Characteristics	$n \leq 300000$ divisions $120 \text{ g} \leq \text{Max} \leq 300 \text{ g}$ or the equivalent in ct $e \geq 1 \text{ mg}$ or the equivalent in ct $e = d$ or $e = 10 d$ or $e = 100 d$ Temperature range $+10 \text{ }^\circ\text{C} / +30 \text{ }^\circ\text{C}$ In the description number T5591 revision 1 further characteristics are described.
Valid until	15 January 2020
Description and documentation	The instrument is described in the description number T5591 revision 1 and documented in the documentation folder T5591-1, appertaining to this EC type-approval certificate.
Remarks	This revision of the EC type-approval certificate replaces the earlier version, except for its documentation folder.

The Notified Body Number 0122
NMI Certin, 15 January 2010


C. Oosterman
Head Certification Board

NMI Certin BV
Hugo de Grootplein 1
3314 EG Dordrecht
PO Box 394
3300 AJ Dordrecht, NL
T +31 78 6332332
F +31 78 6332309
certin@nmi.nl
www.nmi.nl

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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 legislation.

1.1 Essential parts

The electronics.

The mechanical assembly with weighing cell.

EMC protection measures:

- The A/D board is shielded with a metal cover.

1.2 Essential characteristics

Power supply: 230 V AC, 50 Hz..

1.3 Essential shapes

The non-automatic weighing instrument is built according to drawings:

- GR Series Exploded view 1 drawing number GR-004;
- GR Series Exploded view 2 drawing number GR-005.

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 drawing:

- GR Series Markings and Sealing drawing number GR-001A.

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 90/384/EEC), or
- an official mark of a Member State of the EEC, or an other party to the EEA agreement.

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.

A level indicator with shows that the maximum permissible tilt is being 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 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.

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
GR Series A to D Convertor	GR-003	-	Layout including Parts List
GR Series Main Board	GR-002	-	Layout including Parts List

2.1.2 Essential characteristics

List of devices:

- selection of units of mass: g, mg, ct, oz;
- auxiliary indicating (e =10 d or e = 100 d);
- determination stability of equilibrium;
- zero-tracking;
- initial zero-setting;
- initial tare setting;
- combined semi-automatic zero-setting and subtractive tare balancing;
- indication of stable equilibrium;
- density determination;
- semi automatic calibration mode (with internal and/or external weight);
- automatic calibration mode with internal weight;
- acting upon significant faults;
- display checking;
- counting device;
- percentage mode;
- memory storage.

2.1.3 Conditional parts

The interface section is located on the power 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;
- remote key input.

2.1.4 Non-essential parts

Display;
 Keyboard.

2.2 The mechanical assembly with weighing cell

2.2.1 Essential parts

Description	Drawing number	Rev.	Remarks
GR Series Exploded view 2	GR-005	-	

2.2.2 Essential characteristics

Maximum capacity of the weighing cell:
 - Max = 300 g with e = 1 mg.

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.