

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


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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.