EC type-approval Certificate

Number **T8508** revision 0
Project number 14200075

Issued by	NMi Certin B.V., designated and notified by the Netherlands to perform tasks with respect to conformity modules mentioned in article 9 of Directive 2009/23/EC, after having established that the measuring instrument meets the applicable requirements of Directive 2009/23/EC, to:
Manufacturer	Ohaus Corporation 7 Campus Drive, Suite 310 Parsippany, NJ 07054 United States of America
Measuring instrument	A **Non-automatic weighing instrument** Type : Adventurer AX series
	Further properties are described in the annexes: – Description T8508 revision 0; – Documentation folder T8508-1.
Valid until	11 September 2024
Issuing Authority	**NMi Certin B.V., Notified Body number 0122** 11 September 2014 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

This document is issued under the provision that no liability is accepted and that the applicant shall indemnify third-party liability.

The designation of NMi Certin B.V. as Notified Body can be verified at http://ec.europa.eu/enterprise/newapproach/nando/

Parties concerned can lodge objection against this decision, within six weeks after the date of submission, to the general manager of NMi (see www.nmi.nl).

Reproduction of the complete document only is permitted.

INSPECTION RvA I 122

1 General information about the non-automatic weighing instrument

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

1.1 Essential parts

The electronics;
The mechanical assembly.

See block diagram:

Number	Pages	Description	Remarks
8508/0-01	1	Block diagram	-

EMI protection measures:
- The A/D board is shielded with a metal cover;
- Ferrite on the cable between display and main board;
- Ferrite on the cable between main board and communication board;
- Ferrite on the power cable connected to the main board;
- Ferrite on the cable between MFR cell board and magnetic coil of weighing cells (models with AX523PC and AX4202PC weighing cells only).

1.2 Essential characteristics

Accuracy class	(I)	(II)	
Maximum capacity	Max ≤ 320 g	Max ≤ 5200 g	Max ≤ 8200 g
Verification scale interval	e ≥ 0,001 g	0,1 g ≥ e ≥ 0,01 g	e ≥ 1 g
Maximum number of scale intervals	n ≤ 320000 divisions	n ≤ 52000 divisions	n ≤ 8200 divisions
Actual scale interval	e = d or e = 10 d		
Weighing range	Single interval		
Tare	T ≤ -Max		
Temperature range	+10 °C / +30 °C		
Power supply voltage	12 V DC supplied by AC/DC plug-in power supply		
Software identification	Version number: 1.xx, xx = 00 to 99		

Software:
- The identification number will be displayed at start-up, or with the key sequence:
  - "Menu" button;
  - "Data Maintenance" button;
  - "Balance Info" button.
- The non-automatic weighing instrument has embedded software.

1.3 Essential shapes

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

Number	Pages	Description	Remarks
8508/0-02	1	Exploded view	AX…1… / AX…2…
8508/0-03	1	Exploded view	AX…3… / AX…4…

The descriptive markings plate is secured against removal by sealing or will be destroyed when removed and contains the information as required by Directive 2009/23/EC annex IV.

The inscriptions Max, Min, e, as required by Directive 2009/23/EC annex IV article 1.4 are presented in the display by software.

Inside the cabinet is an adjustment lock, located on the communication 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, provided that the peripheral equipment is certified to be connected to a non-automatic weighing instrument by a Notified Body responsible for type examination under Directive 2009/23/EC, or, that the equipment and the use of the equipment complies with the requirements of WELMEC 2.5 Issue 2, 2.2.

The non-automatic weighing instrument is fitted with a levelling device and a level indicator. 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.

Other non-essential parts:
- AC/DC plug-in power supply.

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

2.1 The electronics

2.1.1 Essential parts

Number	Pages	Description	Remarks
8508/0-04	1	Main board PCB lay out	-
8508/0-05	6	Main board parts list	-

2.1.2 Essential characteristics

List of legally relevant functions:
- Determination stability of equilibrium;
- Indication of stable equilibrium;
- Zero indicating;
- Semi-automatic zero-setting;
- Initial zero-setting;
- Zero-tracking;
- Semi-automatic subtractive tare weighing;
- Automatic tare balancing or weighing;
- Preset tare;
- Adjustment / set-up mode via a switch on the communication board;
- Automatic span adjustment with internal calibration mass;
  operational:
  - after switch on;
  - $\Delta t \leq 1{,}5$ °C;
  - every $\leq$ 11 hours;
- Semi-automatic span adjustment with internal calibration mass;
- Acting upon significant faults;
- Counting (parts counting);
- Percent weighing;
- Check weighing;
- Formulation;
- Density determination;
- Totalisation;
- Weighing unstable samples;
- Weight unit selection (kg, g, mg, ct);
- Indications other than primary indications.

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:
- RS232;
- USB host;
- USB device.

2.1.4 Non-essential parts

Display;
Keyboard;
Motor drive board.

2.2 The mechanical assembly with weighing cell

2.2.1 Essential parts

For class (I) instruments with e= 0,001 g and class (II) instruments with e= 1 g:

Number	Pages	Description	Remarks
8508/0-06	2	General overview of weighing cells used	types NMBAI, IMPDI
8508/0-07	1	Weighing cell board PCB lay out	ME-42911013
8508/0-08	4	Weighing cell board parts list	SL-42911013

For class (II) instruments with e= 0,01 g and e= 0,1 g:

Number	Pages	Description	Remarks
8508/0-06	2	General overview of weighing cells used	types AX523PC, AX4202PC
8508/0-09	1	Weighing cell board PCB lay out	ME-30029888
8509/0-10	2	Weighing cell board parts list	SL-30029888

2.2.2 Essential characteristics

See chapter 2.2.1.

2.2.3 Essential shapes

See chapter 2.2.1.

3 Seals

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 drawings:

Number	Pages	Description	Remarks
8508/0-11	1	Sealing	-

4 Conditions for conformity assessment

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.