



# EC type-approval certificate

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Project number 807452  
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Issued by NMI Certin B.V.  
Hugo de Grootplein 1  
3314 EG Dordrecht  
The Netherlands

Notified Body Number 0122

In accordance with The Council Directive 90/384/EEC on non-automatic weighing instruments.

Applicant Ohaus Corporation  
19A Chapin Road  
Pine Brook  
New Jersey 07058  
United States of America

In respect of A class **I** and **II**, electronic, single interval **non-automatic weighing instrument**.

Manufacturer : Ohaus  
Type : Pioneer series

Characteristics Max ≤ 4100 g or Max ≤ 2000 ct  
e ≥ 1 mg or e ≥ 10 mct  
n ≤ 210 000 divisions

Temperature range: +15 °C / +30 °C for class **I**;  
+10 °C / +30 °C for class **II**.

In the description number T7370 revision 1 further characteristics are described.

Valid until 7 March 2018

Description and documentation The instrument is described in the description number T7370 revision 1 and documented in the documentation folder T7370-1, appertaining to this EC type-approval certificate.

Remarks This revision replaces the earlier version, except for its documentation folder.

Dordrecht, 22 August 2008  
NMI Certin B.V.

Ing. C. Oosterman  
Manager Product Certification

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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

See drawing "Schematic Drawing", drawing number T7370-1;  
The electronics;  
The mechanical assembly with load cell.

EMC protection measures:

- The A/D board and load cell are shielded with a metal cover;
- One ferrite core on the cable from the adapter input to the main board (2 turns).

Additional EMC protection measures for class **II**:

- One ferrite core on the cable from the main board to the A/D board (1 turn).

### 1.2 Essential characteristics

Power supply: 12 V DC by means of an AC adapter (Input: 100-240 V AC, 50/60 Hz).

### 1.3 Essential shapes

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

- Outline drawing DS-model, drawing number T7370-2;
- Outline drawing Non DS-model, drawing number T7370-3;
- Exploded view DS-model, drawing number 12105970 Revision X1;
- Exploded view Non DS-model, drawing number 12105971 Revision X1.

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:

- Sealing access to the balance settings, drawing number T7370-4.

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 another party to the EEA agreement.

Inside the cabinet is a calibration lock (Menu Lock Switch that prevents changes to the Lock Menu), 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 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 is fitted with a levelling device and a level indicator, unless the instrument is installed in a fixed position. The level indicator has 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.

## 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
Mainboard of Cento Level list of material of cento main board	12105753 BOM(12105753)	A C	Drawing Partslist (4 pages) Used in PA-models
Mainboard of Cento Level list of material of cento main board	12105754 BOM(12105754)	A C	Drawing Partslist (4 pages) Used in PAJ-models
Cell Board of CENTO AB Level list of material of cell board	ME-12105759 BOM(12105759)	A A	Drawing Partslist (3 pages) Used in Class <b>I</b>
Cell Board List of material of cell board	ME-42900752 42900752	C 27.10.03	Drawing Partslist (2 pages) Used in Class <b>II</b>

## 2.1.2 Essential characteristics

List of devices:

- Determination stability of equilibrium;
- Zero indicator;
- Semi-automatic zero-setting;
- Initial zero-setting;
- Zero-tracking;
- Semi-automatic subtractive tare balancing;
- Indication of stable equilibrium;
- Calibration / set-up mode via a switch on the main board;
- Acting upon significant faults;
- Checking the display;
- Weight unit selection (g, mg, ct);
- Indications other than primary indications;
- Semi-automatic span adjustment with external calibration mass (only for class **I** instruments);
- Semi-automatic span adjustment with internal calibration mass, operational when:
  - $\Delta t \leq 2.0$  °C
  - On every  $\leq 13$  hours.

## 2.1.3 Conditional parts

The interface section is located on the main 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.

## 2.1.4 Non-essential parts

Display;  
 Keyboard.

## 2.2 The mechanical assembly with load cell

### 2.2.1 Essential parts

Description	Drawing number	Rev.	Remarks
Analytical load cell	T7370-5	-	Used in Class <b>I</b>
MonoBloc 1 load cell	T7370-6	-	Used in Class <b>II</b>
MonoBloc 2 load cell	T7370-7	-	Used in Class <b>II</b>

### 2.2.2 Essential shapes

See drawings chapter 2.2.1 Essential parts.



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### **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.