Nederlands Meetinstituut

EC type-approval certificate

Number **T2777** revision 1
Project number 309597

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	Mettler-Toledo GmbH Im Langacher 8606 Greifensee Switzerland
In respect of	A class (I) graduated, self-indicating, electronic, **non-automatic weighing instrument**. Manufacturer : Mettler-Toledo Type : HR.. and HG.. Moisture analyzer
Characteristics	Max ≤ 81 g e ≥ 1 mg n ≤ 81000 divisions Temperature range 17.5 °C / 22.5 °C In the description number T2777 revision 1 further characteristics are described.
Valid until	22 February 2006
Description and documentation	The instrument is described in the description number T2777 revision 1 and documented in the documentation folder T2777-1, appertaining to tnis EC type-approval certificate.
Remarks	This revision EC type-approval certificate replaces the earlier versions, except for its documentation folder.

Delft, 15 October 2003
NMi Certin B.V.

P.P.M. van Enckevort
Manager Certification Delft

Nederlands Meetinstituut
Hugo de Grootplein 1
3314 EG Dordrecht
Telephone +31 78 6332332
Telefax +31 78 6332309

NMi B.V.
(Chamber of Commerce no.27.228.701)

Subsidiary companies:
NMi Van Swinden Laboratorium B.V. (27228703)
NMi Certin B.V. (27.233.418)
Verispect B.V. (27.228.700)

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.

1.2 Essential characteristics

Power supply:
- 100 – 120 V AC, 50/60 Hz or
- 200 – 240 V AC, 50/60 Hz.

1.3 Essential shapes

The non-automatic weighing instrument is built according to drawing:
- "HG53/HR73 Halogen Moisture Analyzer", drawing number 240'532.

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:
- "Standort Eichschilder und Plombierung", drawing number ME-240530.

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.
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.

A halogen heater to evaporate moisture.

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
Overview CPU-Board	ES-214403	--	--
CPU-Board HR	ME-214405	--	+ parts list 8 pages
CPU-Board HG	ME-214431	--	+ parts list 7 pages
Power supply	ME-214411	--	+ parts list 5 pages
Detection Board	ME-224402	--	+ parts list 2 pages

2.1.2 Essential characteristics

List of devices:
- Determination stability of equilibrium;
- Initial zero-setting with a maximum of ≤ 20% of Max;
- Zero-tracking;
- Combined semi-automatic zero-setting and subtractive tare balancing;
- Semi-automatic span adjustment with external calibration mass;
- Acting upon significant faults;
- Checking the display;
- A device that distinguish the printout with a "*" when the halogen heater is in operation and the non-automatic weighing instrument may not satisfies the essential requirements because the temperature range is exceeded.

2.1.3 Conditional parts

The interface section is located on the CPU board. The non-automatic weighing instrument may be equipped with one or more of the following protective interfaces that have not to be secured:
- LocalCAn universal interface.

2.1.4 Non-essential parts

Display;
Keyboard;
Internal printer;
Moisture analyzer.

2.2 The mechanical assembly with weighing cell

2.2.1 Essential parts

Description	Drawing number	Rev.	Remarks
Messzelle	ME-240570	--	--

2.2.2 Essential characteristics

Max = 140 g and e ≥ 1 mg.

2.2.3 Essential shapes

Description	Drawing number	Rev.	Remarks
Messzelle	ME-240570	--	--

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.