

Nederlands Meetinstituut

# EC type-approval certificate

Number **T5708** revision 1  
Project number 10118378  
Page 1 of 4

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 : AX..., MX..., UMX...

Characteristics  $n \leq 510\,000$  divisions  
 $\text{Max} \leq 510$  g  
 $e = 1$  mg  
 $d \leq e \leq 10000d$

Temperature range  $+10$  °C /  $+30$  °C

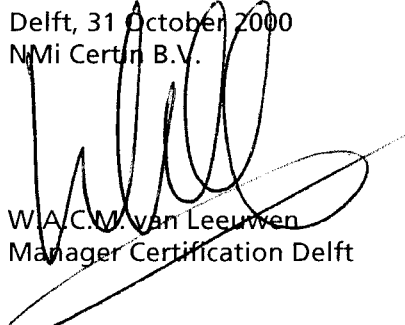
In the description number T5708 revision 1 further characteristics are described.

Valid until 27 October 2010

Description and documentation The instrument is described in the description number T5708 revision 1 and documented in the documentation folder T5708-1, appertaining to this EC type-approval certificate.

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

Delft, 31 October 2000  
NMI Certin B.V.

  
W.A.C.W. van Leeuwen  
Manager Certification Delft

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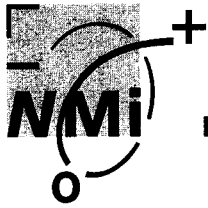
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## 1 General information about the non-automatic weighing instrument

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 "Prinzipschema", drawing number ME-11100945.

The electronics.

The mechanical assembly with weighing cell.

EMC protection measures:

- The electronic boards and the weighing cell are placed in a metal case.

### 1.2 Essential characteristics

Power supply: 100-250 V AC, 50/60 Hz.

### 1.3 Essential shapes

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

- AX analytical balances, drawing number ME-11505060;
- Exploded view of AX balances, drawing number ME-11780422;
- UMX/MX – Microbalances, drawing number ME-11505061;
- Exploded view of MX/UMX balances, drawing number ME-11505098A and ME-11505098B.

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 drawings:

- AX Position of verification – Stickers, drawing number ME-11505059;
- MX/UMX Position of verification – Stickers, drawing number ME11505066.

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

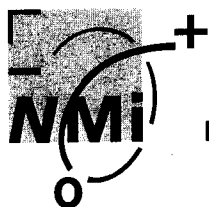
The non-automatic weighing instrument may be equipped with peripheral equipment which is used for the applications listed in article 1(2)(a) of the EC Directive (90/384/EEC), if the peripheral equipment is certified to be connected to an EC type-approved non-automatic weighing instrument by a Notified 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 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, see drawing Tischnetzgeraet, drawing number ME-11100750C.

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

### 2.1 The electronics

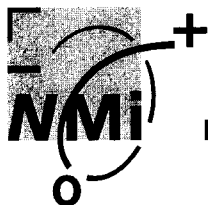
#### 2.1.1 Essential parts

Description	Drawing number	Rev.	Remarks
Analog board	ME-11100677	G	
Digital board	ME-11100607	F	
Cell board AX	ME-11100615	E	
Pos. Sensor board MX	ME-11100710	C	
Cell board MX	ME-11100715	C	
Fuehlerprint	ME-211502	A	

#### 2.1.2 Essential characteristics

List of devices:

- to change from g to mg;
- auxiliary indicating device with differentiated scale interval;
- determination stability of equilibrium;
- initial zero-setting;
- zero-tracking;
- semi-automatic combined zero-setting and subtractive tare balancing;
- indication of stable equilibrium;
- semi-automatic span adjustment with internal or external calibration mass;
- automatic span adjustment (FACT) with internal calibration mass;
- counting device;
- acting upon significant faults;
- checking the display;
- memory storage;
- downloading coded non-metrological software as flashfiles.



### 2.1.3 Conditional parts

The interface section is located on the digital 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;
- LocalCAN;
- MiniMettler.

### 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
Measuring Cell AX balances Max 510g	ME-11505062	--	
Measuring Cell MX/UMX balances Max 5.1g	ME-11505076	--	

### 2.2.2 Essential characteristics

Maximum capacity of the weighing cell:  
For AX; Max = 510 g with e = 1 mg.  
For MX/UMX; Max = 5.1 g with e = 1 mg.

### 2.2.3 Essential shapes

See drawings:  
Measuring Cell AX balances Max 510g, drawing number ME-11505062;  
Measuring Cell MX/UMX balances Max 5.1g, drawing number ME-11505076.

## 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.