



Nederlands Meetinstituut

Member State
The Netherlands

OIML Certificate N° R76/1992-NL1-03.02

Project number 210527

Page 1 of 2

OIML CERTIFICATE OF CONFORMITY

Issuing authority

Name: NMI Certin B.V.
Address: Hugo de Grootplein 1, Dordrecht
Person responsible: P.P.M. van Enckevort

Applicant

Name: CAS Corporation
Address: #19 Ganap-Ri, Gwangjuk-Myun
Yangju-Gun, Gyunggi-Do
Republic of Korea

Manufacturer of the certified pattern

Name: CAS Corporation
Address: #19 Ganap-Ri, Gwangjuk-Myun
Yangju-Gun, Gyunggi-Do
Republic of Korea

Identification of the certified pattern

Type : DB-IIF

$n \leq 3000$ divisions (per partial weighing range)
 $60 \text{ kg} \leq \text{Max} \leq 300 \text{ kg}$
 $e \geq 10 \text{ g}$
maximum of two partial weighing ranges

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report, the type-approval certificate and the description with number T6188 and the appertaining documentation folder), with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

R76

edition 1992

for accuracy class (III)

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation(s).

This certificate does not bestow any form of legal international approval.

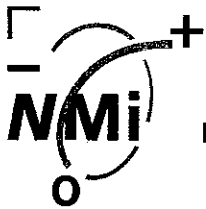
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NMI B.V.
(Chamber of Commerce no.27.228.701)

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

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The conformity was established by tests described in the associated test report:
N° R76/1992-NL1-03.02, that includes 53 pages.

The issuing authority
P.P.M. van Enkevort
Manager Certification Delft

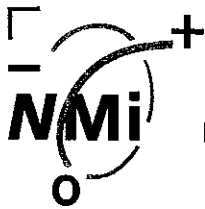
7 March 2003

The OIML member
G.J. Faber

7 March 2003

*
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Nederlands Meetinstituut

EC type-approval certificate

Number **T6188** revision 0

Project number 210527

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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 CAS Corporation
#19 Ganap-Ri, Gwangjuk-Myun
Yangju-Gun, Gyunggi-Do
Republic of Korea

In respect of A class **(III)**, electronic, multi-interval **non-automatic weighing instrument**.
Manufacturer : CAS Corporation
Type : DB-IIF

Characteristics $n \leq 3000$ divisions (per partial weighing range)
 $60 \text{ kg} \leq \text{Max} \leq 300 \text{ kg}$
 $e \geq 10 \text{ g}$
maximum of two partial weighing ranges

In the description number T6188 revision 0 further characteristics are described.

Valid until 7 March 2013

Description and documentation The instrument is described in the description number T6188 revision 0 and documented in the documentation folder T6188-1, appertaining to this EC type-approval certificate.

Delft, 7 March 2003

NMI Certin B.V.

P.P.M. van Enckevort
Manager Certification Delft

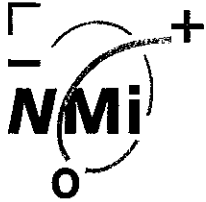
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1 General information about the non-automatic weighing instrument

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 Block Diagram, drawing number 3.5 System Block Diagram

The electronics;

The mechanical assembly with load cell.

EMC protection measures:

- The A/D board is shielded with a metal cover.
- The inside of the display and keyboard box is covered with a conductive paint.
- a ferrite with a minimal impedance of 744 Ohm at 100MHz and 2 turns is placed around the loadcellcable with 2 turns near the indicating unit (in the joint).

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:

- "Exploded view", drawing part no. 3000-DB2-0000 rev. 00, page 1/3;
- "Exploded view", drawing part no. 3000-DB2-0000 rev. 00, page 2/2.

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 method", Drawing part no. 3005-DB2-0001 rev. 00.

The securing component has to bear either:

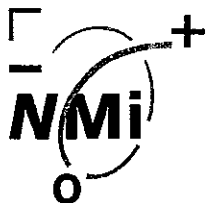
- a mark of the manufacturer laid down in a notified body approved quality system (Annex II of the directive 90/384/EEC), or
- an official mark of a Member State of the EEC, or an other party to the EEA agreement.

Inside the cabinet is a calibration lock, 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.

If the non-automatic weighing instrument is liable to be tilted the instrument must be equipped with 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.

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
Main board	3.8 Part Location 6.1 VFD main PCB Ass'y	-- --	Component layout Parts list, 2 pages

2.1.2 Essential characteristics

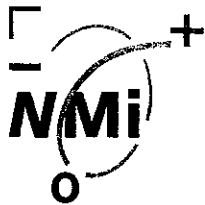
List of devices:

- determination stability of equilibrium;
- zero indicator;
- semi-automatic zero-setting;
- initial zero-setting;
- zero-tracking;
- semi-automatic subtractive tare balancing;
- indication of stable equilibrium;
- gravity compensation;
- calibration / set-up mode via a switch on the main board;
- acting upon significant faults;
- checking the display;
- weighing unstable samples;
- piece counting;
- memory storage;
- digital indications other than primary indications.

2.1.3 Conditional parts

The interface section is located on a separate interface board. The non-automatic weighing instrument may be equipped with the following protective interface that has not to be secured:

- RS232.



2.1.4 Non-essential parts

VFD Display;
Keyboard.

2.2 The mechanical assembly with load cell

2.2.1 Essential parts

Description	Drawing number	Rev.	Remarks
Exploded view	3000-DB2-0000, page 2/2	00	
Load cell BC-60DS	BC60DS-201	--	

2.2.2 Essential characteristics

$e \geq E_{max} / 6000$ or $e_1 \geq E_{max} / 7500$ in case of a multi interval instrument;
Excitation power supply 12V DC.

2.2.3 Essential shapes

See Exploded view, drawing number 3000-DB2-0000, page 2/2.

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.