Nederlands Meetinstituut

Member State
The Netherlands

OIML Certificate N° R76/1992-NL-02.35
Project number 202304

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, Gyeonggi-Do, Republic of Korea

Manufacturer of the certified pattern

Name:	CAS Corporation
Address:	#19 Ganap-ri, Gwangjuk-myun, Yangju-gun, Gyeonggi-Do, Republic of Korea

Identification of the certified pattern

Type : TP-II

$n \leq 3000$ divisions (per partial weighing range)
$6\ kg \leq Max \leq 30\ kg$
$e \geq 1g$
maximum of two partial weighing ranges
$T \leq -Max$

Temperature range: -10 °C / +40 °C

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 T6119 and the appertaining documentation folder), with the requirements of the following Recommendation of the International Organisation 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.

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)

Nederlands Meetinstituut

Member State
The Netherlands

OIML Certificate N° R76/1992-NL-02.35
Project number 202304

The conformity was established by tests described in the associated test report:
N° R76/1992-NL-02.35, that includes 55 pages.

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

30 September 2002

The CIML member
G.J. Faber

30 September 2002

*
* *

Important note: Apart from the mention of the certificate's reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated test report is not permitted, though they may be reproduced in full.

Nederlands Meetinstituut

EC type-approval certificate

Number **T6119** revision 0
Project number 202304

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, Gyeonggi-Do, Republic of Korea
In respect of	A class (III), electronic, single- or multi-interval, **non-automatic weighing instrument**, intended to be used for direct sales to the public. Manufacturer : CAS Corporation Type : TP-II
Characteristics	$n \leq 3000$ divisions (per partial weighing range) $6\ kg \leq Max \leq 30\ kg$ $e \geq 1g$ maximum of two partial weighing ranges In the description number T6119 revision 0 further characteristics are described.
Valid until	30 September 2012
Description and documentation	The instrument is described in the description number T6119 revision 0 and documented in the documentation folder T6119-1, appertaining to this EC type-approval certificate.

Delft, 30 September 2002
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 load cell.

EMC protection measures:
- The main board is shielded with a metal cover.

1.2 Essential characteristics

9 - 12 V DC by AC/DC adaptor or external power supply, or 9 V DC by batteries.

1.3 Essential shapes

The non-automatic weighing instrument is built according to drawing "EXPLODED VIEW", drawing number 21 or 34.
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 number 3 or 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 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.
The non-automatic weighing instrument may be equipped with an Electronic Point of Sale (EPoS) or an Electronic Cash Register (ECR), if these EPoS and ECR are 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 may be equipped with Electronic Funds Transfer equipment (EFT/ECU), if these EFT/ECU represent only the price total on the display.
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.

Battery (rechargeable);
AC/DC-adapter;
External power supply.

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
TP-II MAIN PCB DIAGRAM main board BR type main board B type main board pole type	13	- - - -	main board partslist partslist partslist
TP-II ANALOG PCB DIAGRAM A/D board	14	- -	A/D board partslist
TP-II REAR PCB DIAGRAM TP-II POLE REAR PCB DIAGRAM rear display, BR and B type	15 17	- - -	rear display rear display pole partslist
TP-II POLE FRONT PCB DIAGRAM front display, pole type	16	- -	pole display partslist

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;
- memory storage;
- digital indications other than primary indications;
- calibration / set-up mode via a switch on the main board;
- acting upon significant faults;
- checking the display;
- price calculation;
- changing from kg to lb (only for the countries where the use of lb is allowed and complying with the requirements of the country where the instrument is taken into service).

2.1.3 Essential shapes

See the drawing "EXPLODED VIEW", drawing number 21 or 34.

2.1.4 Conditional parts

Description	Drawing number	Rev.	Remarks
TP-II STANDARD & B TYPE PCB DIAGRAM powerboard (standard and B types)	18	- -	power board partslist
TP-II RECHARGEABLE PCB DIAGRAM charge PCB (only BR type)	19	- -	power board (rechargeable batteries) partslist

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.

2.1.5 Non-essential parts

Display;
Keyboard.

2.2 The mechanical assembly with load cell

2.2.1 Essential parts

See the drawing "EXPLODED VIEW", drawing number 21 or 34.

2.2.2 Essential characteristics

$e \geq E_{max}/5000$, or $e_1 \geq E_{max}/20000$ in case of multi-interval instrument;
Excitation power supply 5,0 V DC.

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.