Nederlands Meetinstituut

O Member State
The Netherlands

OIML Certificate N° R76/1992-NL-02.09
Project number 200248

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 Kanap-Ri, Kwangjuk-Myun, Yangju-Gun, Kyungki-Do Korea

Manufacturer of the certified pattern

Name:	CAS Corporation
Address:	#19 Kanap-Ri, Kwangjuk-Myun, Yangju-Gun, Kyungki-Do Korea

Identification of the certified pattern

Type : AP series

6 kg ≤ Max ≤ 30 kg
e ≥ 1 g
n ≤ 3000 divisions for instruments with a multi-interval, per partial weighing range, with a maximum of two weighing ranges.
T ≤ - 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 T6027 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.

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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-NL-02.09, that includes 54 pages.

The issuing authority
P.P.M. van Enckevort
Manager Certification Delft
b/a

16 April 2002

The OIML member
G.J. Faber

16 April 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 **T6027** revision 0
Project number 200248

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 Kanap-Ri, Kwangjuk-Myun, Yangju-Gun, Kyungki-Do Korea
In respect of	A class (III), electronic, multi-interval **non-automatic weighing instrument**, intended to be used for direct sales to the public. Manufacturer : CAS Corporation Type : AP series
Characteristics	$n \leq 3000$ divisions (per partial weighing range) $6\ kg \leq Max \leq 30\ kg$ $e \geq 1\ g$ maximum of two partial weighing ranges Temperature range -10 °C / +40 °C In the description number T6027 revision 0 further characteristics are described.
Valid until	16 April 2012
Description and documentation	The instrument is described in the description number T6027 revision 0 and documented in the documentation folder T6027-1, appertaining to this EC type-approval certificate.

Delft, 16 April 2002
NMi Certin B.V.
b/a

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

The electronics
The mechanical assembly with load cell.

EMC protection measures:
- The A/D board is shielded with a metal cover.

1.2 Essential characteristics

Power supply: 110 – 120 or 220 - 240 V AC 50/60 Hz.

1.3 Essential shapes

The non-automatic weighing instrument is built according to drawing "THE EXPLODED VIEW", drawing number 1.
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 drawings "SEALING METHOD", drawing numbers 2 and 3.
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 instument must be equipped with a level indicator with a sensitivity of at least 2 mm for a tilt of 2/1000.

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
PARTS LOCATION	4	--	--
ANALOG MODULE	6144-M00-0100	--	--
DIGITAL MODULE	5	--	--
AP SERIES FULL PART 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;
- tare weighing;
- preset tare;
- indication of stable equilibrium;
- calibration / set-up mode via a switch on the main board;
- acting upon significant faults;
- checking the display;
- price calculation;

2.1.3 Essential shapes

See the drawing: "THE EXPLODED VIEW", drawingnumber 1.

2.1.4 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;

2.1.5 Non-essential parts

Display;
Keyboard;

2.2 The mechanical assembly with load cell

2.2.1 Essential parts

Description	Drawing number	Rev.	Remarks
THE EXPLODED VIEW	1	--	--

2.2.2 Essential characteristics

$e_1 \geq E_{max}/10000$;
Excitation power supply 12.25 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.