NMO	OIML Certification System
OIML Member State United Kingdom of Great Britain and Northern Ireland	**OIML Certificate No.** **R76/2006-A-GB1-18.10**

OIML CERTIFICATE ISSUED UNDER SCHEME A

OIML Issuing Authority	**NMO** **Stanton Avenue** **Teddington** **TW11 0JZ** **United Kingdom**
Person responsible:	**Mannie Panesar – Head of Technical Services**
Applicant	**CAS Corporation** **#262, Geurugogae-ro** **Gwangjeok-myeon** **Yangju-si** **Gyeonggi-do** **Republic of Korea**
Manufacturer	**The applicant**
Identification of the certified type	**CI-600A Series and CI-600D Series** *(the detailed characteristics are defined in the Descriptive Annex)*

This OIML Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML type evaluation report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML R 76-1, Edition: 2006

For accuracy class: III and IIII

Issue date: 24 October 2018

The OIML Issuing Authority

Grégory Glas
Lead Technical Manager
For and on behalf of the Head of Technical Services

This OIML Certificate relates only to metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML Recommendation identified above.

This OIML Certificate does not bestow any form of legal international approval.

The conformity was established by the results of tests and examinations provided in the associated OIML type evaluation report:

No. P02431-3 dated 24 October 2018 that includes 16 pages

The technical documentation relating to the identified type is contained in documentation file:

No. P02431-3-D dated 24 October 2018

OIML Certificate History

Revision No.	**Date**	**Description of the modification**
Revision 0	24 October 2018	Certificate first issued.
-	-	-

No revisions have been issued.

Important note:
Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate is issued, partial quotation of the Certificate and of the associated OIML type evaluation report(s) is not permitted, although either may be reproduced in full.

DESCRIPTIVE ANNEX

Characteristics of the instrument:

This family of instruments, designated the CI-600 Series, utilises the CI-601A, CI-605A or CI-607A digital indicating devices connected to a weighing platform to form a single or dual-interval, Class III or IIII, non-automatic weighing instrument.

The instruments are designated the CI-601A and CI-605A respectively, and are not designed for direct sales to the public.

Main features:

- Plastic enclosure
- 4.3" LCD display
- Operator keypad with numerical, navigation and function keys
- Relay In/Out(4 inputs, 6 outputs) option card (CI-605A)
- Relay In/Out(6 inputs, 8 outputs) option card (CI-607A)
- Analogue Out option card (CI-601A, CI-605A, CI-607A)

Devices:

- Initial zero setting device on power up (≤ 20% Max)
- Semi-automatic zero setting (≤ 4% Max)
- Zero tracking (optional) (≤ 4% Max)
- Semi-automatic subtractive tare weighing (T = -Max)
- Preset tare
- Gross/Net indication
- Zero-indicator
- Indication of stable equilibrium
- Net indicator
- Gravity compensation
- Hold function
- Soft functions keys (F1, F2 and F3 can be allocated a function)
- Memory storage

Interfaces:

- Load cell connection
- RS232/485
- Relay In/Out (4 inputs, 6 outputs) (CI-605A)
- Relay In/Out (6 inputs, 8 outputs) (CI-607A)
- Analogue Out (CI-601A, CI-605A, CI-607A)

Load cell:

Any compatible load cell(s) may be used providing the following conditions are met:

- There is a respective OIML Certificate of Conformity (R60) issued for the load cell.
- The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules, and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to R76 has been conducted on this load cell.
- The compatibility of the load cells and indicator is established by the manufacturer by means of the compatibility of modules calculation at the time of verification.
- The load cell transmission conforms to a standard type.

Technical data (indicator):

Power supply	100-240 VAC, 50/60 Hz
Maximum number of scale intervals	10,000 (Class III), single or dual-interval 1,000 (Class III), single or dual-interval
Maximum Tare value	- Max
Maximum Preset Tare value	- Max (single interval) - Max_1 (dual-interval)
Load cell excitation voltage	5 VDC
Minimum load cell impedance	43 Ω
Maximum load cell impedance	1100 Ω
Minimum input voltage per verification scale interval	0.5 μV
Measuring range minimum voltage	0 mV
Measuring range maximum voltage	16 mV
Fraction of maximum permissible error	$P_i = 0.5$
Operating temperature range	- 10 °C to + 40 °C
Load cell cable (from indicator to load cell junction box) - Maximum length	183 m/mm^2 (6-wire configuration)

Software:

The software is held in firmware on the circuit board, and has the identification number “V1.xx”, with xx reflecting non-legally relevant changes. The software version number is displayed at power-up.

Download of software is only possible by accessing the main board inside the sealed enclosure. Access to the legally relevant parameters is prevented by a jumper on the main board.

Sealing:

Access to the electronics, access to the switch described in Software section and the load cell connection are sealed using a tamper-evident method.

Alternatives:

Having a modified instrument designed to be connected to a digital load cell, and designated as follows:

- CI-601D when fitted with Analogue Out card
- CI-605D when fitted with Analogue Out and Relay In/Out (4 inputs, 6 outputs) card
- CI-607D when fitted with Analogue Out and Relay In/Out (6 inputs, 8 outputs) card

The digital load cell may be a WBK-D, manufactured by CAS Corporation, as described in OIML Certificate R60/2000-NL1.1308.

Having the instruments manufactured by the following companies:

CAS (Zhejiang) Electronics Co., Ltd
99# Changjiang Road
Jiashan County
Zhejiang Province
China