



#### **OIML Member State**

United Kingdom of Great Britain and Northern Ireland

OIML Certificate No. R76/2006-A-GB1-18.08

# **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

Yangju-si Gyeonggi-do Republic of Korea

Manufacturer The applicant

Identification of the CI-2001 Series

certified type (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

**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. P02431-1 dated 24 October 2018 that includes 16 pages

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

No. P02431-1-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 indicating device, designated the CI-2001, is designed to be used as part of a single range, Class III or IIII, non-automatic weighing instrument. The indicators are self-indicating and mainspowered.

The instruments are not designed for direct sales to the public.

### Main features:

- Plastic / Stainless Steel enclosure
- LED (CI-2001A) or LCD(CI-2001B) display
- Operator keypad with 6 navigation and function keys
- LED enunciators (CI-2001A)
- LCD enunciators (CI-2001B)

### 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 balancing (T = -Max)
- Gross and Net enunciators
- Gross/Net toggle
- Zero enunciator
- Indication of stable equilibrium
- Gravity compensation

### Interfaces:

- Load cell connection
- RS232/485
- USB

#### 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.

Alternatively, the instruments may have the following specifications, and designations (with x: A or B):

Designation (x can be A or B)	Dead load of load receptor	Max (kg)	e = (kg)	Load cell type (CAS)	Load cell E <sub>max</sub>	Number of load cells
CI-2001x/SPS(SUS)-6	3 kg	6	0.002	BCLS-10L	10	1
CI-2001x/SPS(SUS)-15	3 kg	15	0.005	BCLS-20L	20	1
CI-2001x/SPS(SUS)-30	3 kg	30	0.01	BCLS-30L	30	1
CI-2001x/SPS(SUS)-60	5 kg	60	0.02	BCLS-60L	60	1
CI-2001x/SPS(SUS)-150	5 kg	150	0.05	BCLS-180L	180	1
CI-2001x/SPS-6	3 kg	6	0.002	BCL-10L	10	1
CI-2001x/SPS-15	3 kg	15	0.005	BCL-20L	20	1
CI-2001x/SPS-30	3 kg	30	0.01	BCL-30L	30	1
CI-2001x/SPS-60	5 kg	60	0.02	BCL-60L	60	1
CI-2001x/SPS-150	5 kg	150	0.05	BCL-180L	180	1
CI-2001x/0.5HFS0808	44 kg	500	0.2	BSA-250	250	4
CI-2001x/0.5HFS1008	54 kg	500	0.2	BSA-250	250	4
CI-2001x/0.5HFS1010	65 kg	500	0.2	BSA-250	250	4
CI-2001x/0.6HFS0808	44 kg	600	0.2	BSA-250	250	4
CI-2001x/1HFS1010	65 kg	1000	0.5	BSA-500	500	4
CI-2001x/1HFS1012	77 kg	1000	0.5	BSA-500	500	4
CI-2001x/1HFS1111	78 kg	1000	0.5	BSA-500	500	4
CI-2001x/1HFS1212	92 kg	1000	0.5	BSA-500	500	4
CI-2001x/1HFS1215	118 kg	1000	0.5	BSA-500	500	4
CI-2001x/2HFS1212	92 kg	2000	1	BSA-1T	1000	4
CI-2001x/2HFS1215	118 kg	2000	1	BSA-1T	1000	4
CI-2001x/2HFS1515	145 kg	2000	1	BSA-1T	1000	4
CI-2001x/3HFS1212	92 kg	3000	1	BSA-2T	2000	4
CI-2001x/3HFS1215	118 kg	3000	1	BSA-2T	2000	4
CI-2001x/3HFS1515	145 kg	3000	1	BSA-2T	2000	4
CI-2001x/3HFS1518	178 kg	3000	1	BSA-2T	2000	4
CI-2001x/3HFS1520	198 kg	3000	1	BSA-2T	2000	4
CI-2001x/5HFS1515	145 kg	5000	2	BSA-2T	2000	4
CI-2001x/5HFS1518	178 kg	5000	2	BSA-2T	2000	4
CI-2001x/5HFS1520	198 kg	5000	2	BSA-2T	2000	4
CI-2001x/0.5UFS1208	38 kg	500	0.2	BSA-250	250	4
CI-2001x/1UFS1208	38 kg	1000	0.5	BSA-500	500	4
CI-2001x/1.5UFS1208	38 kg	1500	0.5	BSA-1T	1000	4
CI-2001x/2UFS1208	38 kg	2000	1	BSA-1T	1000	4
CI-2001x/3UFS1208	38 kg	3000	1	BSA-2T	2000	4
CI-2001x/4UFS1208	38 kg	4000	2	BSA-2T	2000	4
CI-2001x/0.5BFS1212	28 kg	500	0.2	BSA-250	250	4
CI-2001x/1BFS1212	28 kg	1000	0.5	BSA-500	500	4
CI-2001x/2BFS1212	28 kg	2000	1	BSA-1T	1000	4

### Technical data (indicator):

Power supply	12 VDC via mains adapter		
Maximum number of scale intervals	4,000 (Class III)	5,000 (Class III)	
	1,000 (Class IIII)	1,000 (Class IIII)	
Operating temperature range	- 10 °C to + 40 °C	0 °C to + 40 °C	
Maximum Tare value	- Max		
Load cell excitation voltage	5 VDC		
Minimum load cell impedance	87.5 Ω		
Maximum load cell impedance	1100 Ω		
Minimum input voltage per verification scale interval	2 μV		
Measuring range minimum voltage	0 mV		
Measuring range maximum voltage	11 mV		
Fraction of maximum permissible error	$P_i = 0.5$		
Load cell cable (from indicator to load cell junction	2 meters (4-wire configuration)		
box) - Maximum length	3.5 m/mm <sup>2</sup> (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 switch 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 the instruments manufactured by the following companies:

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