

National Measurement Institute

Supplementary Certificate of Approval NMI S702

Issued by the Chief Metrologist under Regulation 60 of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

CAS Model CI-607D Digital Indicator

submitted by CAS Corporation

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Republic of Korea

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI R 76, Non-automatic weighing instruments, Parts 1 and 2, dated October 2015.

This approval becomes subject to review on 1/01/21, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 & 2 approved – certificate issued	7/12/15

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI S702' and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S702' in addition to the approval number of the instrument, and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0B.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.

Dr Amanda Rawlinson

TECHNICAL SCHEDULE No S702

1. Description of Pattern

approved on 7/12/15

A CAS model CI-607D digital mass indicator (Figure 1) which is approved for use with NMI-approved CAS WBK-D digital load cells only. The indicator may be configured to form part of:

- A class or class single-interval weighing instrument; or
- A class or class multi-interval weighing instrument with up to two partial weighing ranges (each with its own verification scale interval)

Note: The maximum number of verification scale intervals (VSI) applicable is determined by the number of VSI given in the approval documentation for the load cells used. Class instruments may have a maximum of up to 1000 verification scale intervals or up to 1000 verification scale intervals per partial weighing range.

The indicator has a metal enclosure with one LCD display for display of the weight value.

The instrument operates from mains AC power (110 – 240 V AC, 50 Hz).

Instruments may be fitted with output sockets (output interfacing capability) for the connection of auxiliary and/or peripheral devices (see clause 1.5 Interfaces below).

This approval does not include the use of the indicator as an automatic weighing instrument, unless specifically mentioned in a certificate of approval for such an instrument.

1.1 Zero

A zero-tracking device may be fitted.

The initial zero-setting device has a nominal range of not more than 20% of the maximum capacity of the instrument.

The instrument has a semi-automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

1.2 Tare

A semi-automatic subtractive tare device of less than maximum capacity of the instrument may be fitted.

A non-automatic keyboard-entered pre-set subtractive tare of less than maximum capacity of the instrument (single interval instruments only) or to the limit of the first partial weighing range (multi-interval instruments) may be fitted.

A separate display of tare values is provided.

1.3 Display Check

A display check is initiated whenever power is applied.

1.4 Additional Features

The indicator may be provided with average value hold, peak hold, sampling value hold and automatic hold functions. The additional functions (other than the indications of measured mass, i.e. gross, tare, net, totals, displayed either on the indicator or on an auxiliary or peripheral device) are not approved for trade use.

Note: In particular circumstances (e.g. in regard to weighbridge or public weighbridge operation), Trade Measurement legislation or other NMI Certificates of Approval may impose requirements in regard to specific features, methods of operation, or records to be provided (and in what form).

Certain features of this instrument are able to be configured by the installer or user. Whilst NMI believes that an acceptable configuration can be achieved for typical basic modes of operation, it may also be possible for the instrument to be configured to produce unacceptable configurations, and use of some configurations may be inappropriate in different situations. It is the responsibility of the installer and user to ensure that the configuration is acceptable and meets relevant requirements for any particular situation.

1.5 Interfaces

The indicator may be fitted with interfaces for the connection of auxiliary and/or peripheral devices. Any interfaces shall comply with clause 5.3.6 of document NMI R76 (the basic intent of which is that it shall not be possible to alter weighing results via the interfaces).

Any measurement data output from the instrument or its interfaces shall only be used for trade in compliance with NMI General Supplementary Certificate No S1/0/B (in particular in regard to the data and its format).

Indications other than the indications of measured mass (i.e. gross, tare, net, totals) displayed either on the indicator or on an auxiliary or peripheral device, are not for trade use.

Instruments may be fitted with RS-232/485 serial data interfaces, analogue out and a Relay In/Out (6 inputs/8 outputs) card.

1.6 Linearisation Facility

Instruments are fitted with a linearisation correction facility having up to four (4) correction points.

1.7 Software

The software version is designated 1.xx (where xx refers to the identification of non-legally relevant software).

The software version number can be seen in the switch-on display sequence (when the power is first applied to the instrument).

1.8 Verification Provision

Provision is made for the application of a verification mark.

1.9 Sealing Provision

Provision is made for the calibration to be sealed by setting a link on the main board within the instrument to OPEN position, and then preventing access within the instrument housing.

It is possible to determine that the link status is in the 'OPEN' position by pushing the '3' key when the power is first applied to the indicator.

- If the link is in the 'OPEN' position, the instrument will display normal weighing mode. In this case the instrument may be verified.
- Otherwise the instrument will display Weight Setup (calibration) mode in which case the instrument should not be verified until the link has been correctly set to the 'OPEN' position.

Sealing to prevent access within the instrument housing may be achieved by using a 'lead and wire' type seal with drilled screws as shown in Figure 2.

1.10 Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	CAS Corp Ko	orea
Indication of accuracy class	or	\mathbb{D}
Maximum capacity (for each range)	<i>Max</i> kg	#1
Minimum capacity (for each range)	<i>Min</i> kg	#1
Verification scale interval (for each range)	<i>e</i> = kg	#1
Maximum subtractive tare	T = kg	#2
Serial number of the instrument		
Pattern approval mark for the indicator	NMI S702	
Pattern approval mark for other components		#3

- #1 These markings are also shown near the display of the result if they are not already located there.
- #2 This marking is required if T is not equal to Max.
- #3 May be located separately from the other markings.

In addition, instruments not greater than 100 kg capacity carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

2. Description of Variant 1

approved on 7/12/15

The CAS model CI-605D which is similar to the pattern but having a 4 inputs/6 outputs Relay In/Out card.

3. Description of Variant 2

approved on 7/12/15

The CAS model CI-601D which is similar to the pattern and variant 1 but without a Relay In/Out card.

TEST PROCEDURE No S702

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

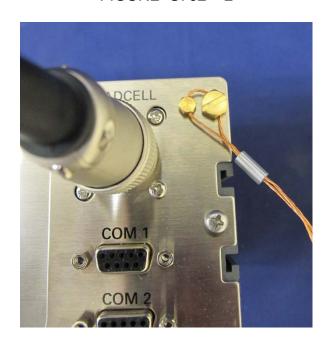
For multi-interval instruments with verification scale intervals of e_1 , e_2 ..., apply e_1 for zero adjustment, and maximum permissible errors apply e_1 , e_2 ..., as applicable for the load.

FIGURE S702 - 1



CAS Model CI-600D Digital Indicator (Pattern)





Typical Mechanical Sealing of CAS CI-600D Series Digital Indicators

~ End of Document ~