Australian Government
Department of Industry, Science and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/4C/339

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.

Ishida Model IPC Weighing Instrument

submitted by Heat and Control Pty. Ltd.
407 Creek Rd
Mt Gravatt QLD 4122

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 is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – certificate issued	12/06/25
1	Variant 2 approved – certificate issued	29/01/26

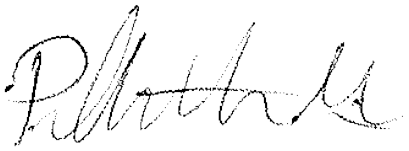
CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/4C/339' 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.

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



Phillip Mitchell
A/g Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No 6/4C/339

1. Description of Pattern approved on 12/06/25

An Ishida model IPC class (III) non-automatic self-indicating multi-interval weighing instrument (Figure 1a and Table 1) with a verification scale interval (e_1) of 0.01 kg up to 15 kg and a verification scale interval (e_2) of 0.02 kg from 15 kg up to the maximum capacity of 30 kg, and with a minimum capacity of 0.2 kg.

The instrument may be provided with a single LCD display for the operator, or may also be provided with a customer display integrated into the body of the instrument. Instruments shall be marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording) unless two displays are present.

The instrument may be fitted with alternative layouts (Figures 2a and 2b).

Instruments are approved for use over a temperature range of −5 °C to +40 °C, and are so marked.

Power for the Ishida IPC instrument may be supplied by either:

- an AC/DC mains adaptor; or/and
- two 1.5 V D size dry batteries.

Note: The AC/DC mains adaptor supplied for the instrument was Shenzhen Keyu Power Supply Technology Co., Ltd. Model KA0601A-0501000AUS power supply (output 5 V DC, 1 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

1.1 Zero

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.

A zero-tracking device may be fitted.

1.2 Tare

A semi-automatic subtractive tare device of up to 14.99 kg may be fitted.

1.3 Display Check

A display check is initiated whenever power is applied.

1.4 Levelling

The instrument is provided with adjustable feet and a level indicator.

The instrument is to be used in a level condition as indicated by the level indicator.

1.5 Verification Provision

Provision is made for the application of a verification mark.

1.6 Sealing Provision

Provision is made for the calibration to be sealed by means of a destructible adhesive label covering the access hole to the calibration switch underneath the instrument (Figure 3), and then preventing access within the instrument housing.

This is achieved by applying a destructible adhesive label over one of the screws securing the instrument housing as shown in Figure 3.

1.7 Software

The software version is designated L004.

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

1.8 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Ishida Co. Ltd
Mark or name of manufacturer's agent	Heat & Control Pty Ltd
Indication of accuracy class	(III)
Pattern approval mark for the instrument	NMI 6/4C/339
Maximum capacity	*Max* ..... kg #1
Minimum capacity	*Min* ..... kg #1
Verification scale interval	*e* = ... kg #1
Maximum subtractive tare	*T* = − ……. kg #2
Serial number of the instrument	……..
Special temperature limits	−5 °C to +40 °C

#1 These markings are shown near the display of the result.

#2 This marking is required if *T* is not equal to *Max*.

In addition, instruments shall carry a notice stating NOT FOR TRADING DIRECT WITH THE PUBLIC, or similar wording unless two displays are present.

Note:

For multi-interval instruments the markings shall be as above, with the exception that the 'Maximum capacity' and 'Verification scale interval' shall be marked for both interval ranges, e.g. as follows:

Maximum capacity	*Max* ...../..... kg
Verification scale interval	*e* = .../..... kg

2. Description of Variant 1 **approved on 12/06/25**

The Ishida model IPC series instruments in certain other multi-interval capacities as listed in Table 1 below (the pattern is shown in **bold**).

TABLE 1

Maximum Capacity (Max_1 / Max_2)	Minimum Capacity (Min)	Verification Scale Interval (e_1 / e_2)	Maximum Subtractive Tare Capacity (T = - …)	Zemic L6D C3 Load Cell (E_{max})
1.5 / 3 kg	0.02 kg	1 / 2 g	1.499 kg	5 kg
3 / 6 kg	0.04 kg	2 / 5 g	2.998 kg	10 kg
7.5 / 15 kg	0.1 kg	5 / 10 g	7.495 kg	25 kg
15 / 30 kg	**0.2 kg**	**10 / 20 g**	**14.99 kg**	**50 kg**

3. Description of Variant 2 approved on 29/01/26

The Ishida model IPC-WP series instruments (Figures 4a and 4b) which are similar to the pattern but fitted with an updated mainboard in certain multi-interval capacities as listed in Table 2 below.

TABLE 2

Maximum Capacity (Max_1 / Max_2)	Minimum Capacity (Min)	Verification Scale Interval (e_1 / e_2)	Maximum Subtractive Tare Capacity (T = - …)	Zemic L6D C3 Load Cell (E_{max})
1.5 / 3 kg	0.02 kg	1 / 2 g	1.499 kg	5 kg
3 / 6 kg	0.04 kg	2 / 5 g	2.998 kg	10 kg
7.5 / 15 kg	0.1 kg	5 / 10 g	7.495 kg	25 kg

3.1 Software

The software version is designated L005.

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

3.2 Sealing Provision

Provision is made for the calibration to be sealed by means of destructible adhesive labels placed over the access hole to the calibration switch underneath the instrument and one of the screws securing the instrument housing as shown in Figure 6.

TEST PROCEDURE No 6/4C/339

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

The instrument shall not be adjusted to anything other than as close as practical to zero error, even when these values are within the maximum permissible errors.

Maximum Permissible Errors

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

For multi-interval and multiple range 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.

Tests

Ensure that instruments are only being used within the special temperature limits stated elsewhere in this Technical Schedule.

FIGURE 6/4C/339 – 1

(a) Ishida Model IPC Weighing Instrument (Operator Side)

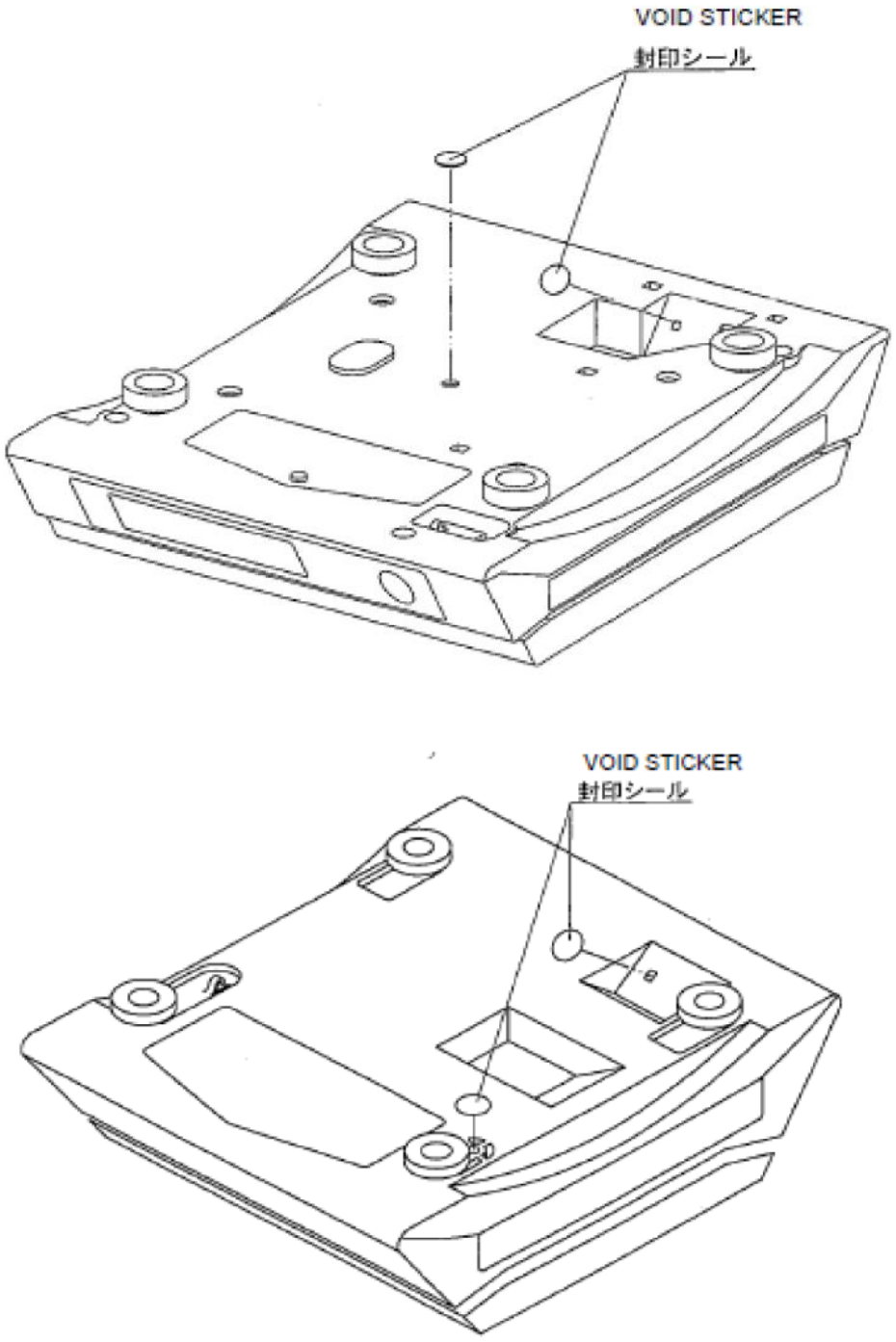
(b) Ishida Model IPC Weighing Instrument (Customer Side)

FIGURE 6/4C/339 – 2

(a) Alternative Layout (For Trading Direct With The Public)

(b) Alternative layout (NOT For Trading Direct With The Public)

FIGURE 6/4C/339 – 3



Typical Sealing Methods

FIGURE 6/4C/339 – 4

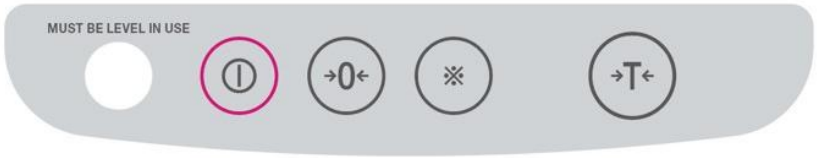
(a) Ishida Model IPC-WP Weighing Instrument (Operator Side)

(b) Ishida Model IPC-WP Weighing Instrument (Customer Side)

FIGURE 6/4C/339 – 5

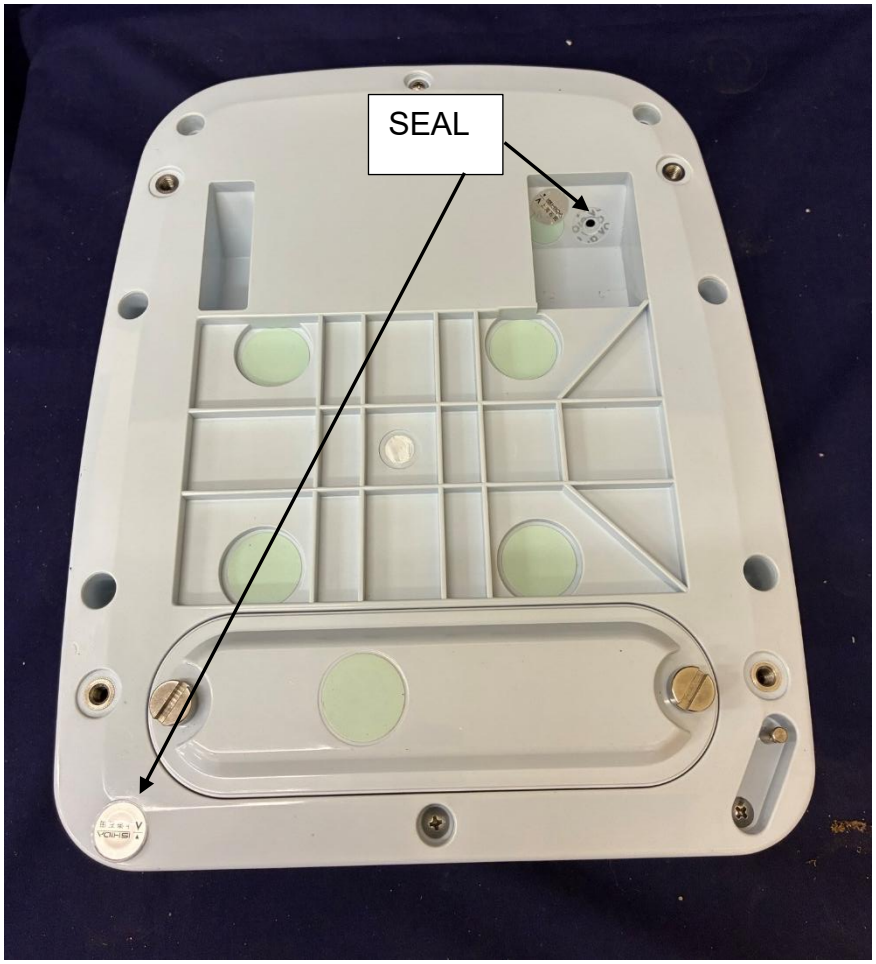
(a) IPC-WP Alternative Layout (For Trading Direct With The Public)

(b) IPC-WP Alternative Layout (NOT For Trading Direct With The Public)



(c) Keyboard Design

FIGURE 6/4C/339 – 6



Typical Model IPC-WP Instruments Sealing Method

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