

Australian Government

National Measurement Institute Bradfield Road, West Lindfield NSW 2070

# **Certificate of Approval**

# NMI 6/4D/343

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 UNI-7EV2 Weighing Instrument

submitted by Heat and Control Pty Ltd 407 Creek Road 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 July 2004.

This approval becomes subject to review on 1/08/14, and then every 5 years thereafter.

Rev	Reason/Details	Date
0	Pattern & variant 1 provisionally approved – interim provisional	17/07/09
	certificate issued	
1	Pattern & variant 1 approved – interim certificate issued	30/07/09
2	Pattern & variants 1 to 7 – certificate issued	15/02/10
3	Interim provisional certificate cancellation issued	18/11/10
4	Pattern & variants 1 to 7 updated – variants 8 to 10 approved	1/11/11
	- certificate issued	

## DOCUMENT HISTORY

#### CONDITIONS OF APPROVAL

#### General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/4D/343' and only by persons authorised by the submittor.

Instruments purporting to comply with this approval and currently marked 'NMI P6/4D/343' may be re-marked 'NMI 6/4D/343' but 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 Certificates No S1/0/A or No S1/0B.

#### Special

Certain aspects of this instrument (in particular label, ticket and receipt formats) are able to be configured by the user. Whilst NMI believes that acceptable label, ticket and receipt can be achieved for typical basic sales modes, it is also possible for the instrument to be configured to produce unacceptable formats, and use of some formats may be inappropriate for different sales modes. It is the responsibility of the user to ensure that acceptable and appropriate formats are used in any particular situation.

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

# TECHNICAL SCHEDULE No 6/4D/343

## 1. Description of Pattern

## approved on 17/07/09

An Ishida model UNI-7EV2 class  $\textcircled$  non-automatic multi-interval self-indicating price-computing weighing instrument (Table 1 and Figure 1a). The instrument has a verification scale interval  $e_1$  of 0.002 kg up to 6 kg, and a verification scale interval  $e_2$  of 0.005 kg from 6 kg to 15 kg. Instruments may also include the word 'type' in the model number, e.g. the pattern can be model 'UNI-7EV2' or 'UNI-7 TYPE EV2'.

The instrument has a column-mounted touch screen display and keyboard for the operator. An LCD screen display is provided for the customer and is also mounted on the column.

Instruments are fitted with a double-sided column-mounted dot matrix type display. A liquid crystal type display or alternatively a vacuum fluorescent type display may be used. For each side, the display consists of one line for presentation of tare, weight, unit price and price information, and an additional line (or lines) capable of displaying alphanumeric information relating to product look up (PLU) items. Additional PLU keyboards may also be provided.

Instruments are fitted with a weighing platter of  $400 \times 254$  mm.

Instruments are fitted with an integral label printer, and an integral ticket (receipt) printer, for printing of labels or tickets.

Instruments have unit price to \$999.99/kg, price to \$9999.99, and a product look up (PLU) facility.

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

The instrument operates from mains AC power.

## 1.1 Zero

Zero is automatically corrected to within  $\pm 0.25e_1$  whenever power is applied and whenever the instrument comes to rest within  $0.5e_1$  of 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.

## 1.2 Tare

A semi-automatic subtractive tare device and/or a non-automatic keyboardentered pre-set subtractive tare device, each of up to 5.998 kg maximum capacity, may be fitted.

A separate display for tare values is provided.

Pre-set tare values may be associated with product look up (PLU) items.

## 1.3 Levelling

The instrument is provided with adjustable feet and adjacent to the level indicator is a notice advising that the 'instrument must be level when in use', or similar wording.

# 1.4 Display Check

A display check is initiated whenever power is applied.

## 1.5 Sealing Provision

Provision is made for the calibration adjustments to be sealed by means of a destructible adhesive label as shown in Figure 1b, to prevent access to the 'memory button' (which enables saving of adjustments).

## **1.6 Verification Provision**

Provision is made for the application of a verification mark.

## **1.7 Descriptive Markings**

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Ishida Co. Ltd			
Name or mark of manufacturer's agent	Heat & Control Pty Ltd			
Indication of accuracy class				
Pattern approval mark for the instrument	NMI No 6/4D/343			
Maximum capacity	Max/ g or kg #1			
Minimum capacity	<i>Min</i> g or kg #1			
Verification scale interval	e =/ g or kg #1			
Maximum subtractive tare	<i>T</i> = g or kg #2	2		
Serial number of the instrument				

- #1 These markings shall also be 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*.

Maximum	Verification	Maximum	Load Cell	Load Cell
(Max <sub>1</sub> /Max <sub>2</sub> )	Scale Interval	Tare Capacity	Make/Model	Capacity
· · · · · · · · · · · · · · · · · · ·	(e <sub>1</sub> /e <sub>2</sub> )	( <i>T</i> =)		E <sub>max</sub>
6/15 kg	0.002/ 0.005 kg	5.998 kg	Ishida CLC-25 L or NMB CLC-25N	25 kg
15/30 kg	0.005/ 0.01 kg	14.995 kg	Ishida CLC-50 L or NMB CLC-50N	50 kg

# TABLE 1

Approved specifications of multi-interval instruments

## 2. Description of Variant 1

## approved on 30/07/09

An Ishida model UNI-7P (Figure 2a), which is similar to the pattern, but has the customer display mounted on a column, the display and keyboard for the operator attached to the instrument, and having only one integrated label printer.

# 3. Description of Variant 2

An Ishida model UNI-7B (Figure 2b), which is a 'bench' style instrument similar to the pattern, but having the customer display integrated within the instrument housing, the display and keyboard for the operator attached to the instrument, and having only one integrated label printer.

## 4. Description of Variant 3

An Ishida model UNI-7EV1 (Figure 3a) which is similar to the pattern, with both the customer display and the display and keyboard for the operator column mounted, but having only one integrated label printer.

## 5. Description of Variant 4

An Ishida model UNI-7P (Variant 1) configured as a self-service type instrument and only having one integrated label printer. Up to three (3) additional keyboards for self-service operation may be fitted (Figure 3b). The instrument may also be known as a model UNI-7SS.

## 6. Description of Variant 5

An Ishida model UNI-7H (Figure 4a) which is a 'hanging' style version of the instrument, having a suspended load receptor.

The instrument is firmly mounted to a mounting rod and is provided with a level indicator; adjacent to the level indicator is a notice advising that the instrument must be level when in use.

Provision is made for the calibration adjustments to be sealed by means of a destructible adhesive label as shown in Figure 4b, to prevent access to the 'memory button' which enables saving of adjustments.

# 7. Description of Variant 6

The pattern or variants without a customer display in which case instruments are either:

- (a) NOT FOR TRADING DIRECT WITH THE PUBLIC in which case instruments carry a notice to this effect; or
- (b) Used in a self-service arrangement which provides a product look up keyboard(s), as well as providing tare, weight, unit price and price displays. A display of tare values (which may be stored against PLU items) is also provided. The model described in variant 4 and shown in Figure 3b is a typical example of such an instrument.
- Note: It is not required that access to the zero setting facility be available to customers in a self-service arrangement. However access to the zero setting facility shall be available to staff of the particular store, and it is expected that measures will be in place to ensure that the zero condition of the instrument is checked regularly.

## approved on 15/02/10

approved on 15/02/10

approved on 15/02/10

#### approved on 15/02/10

approved on 15/02/10

The models of the Ishida UNI-7 series may be connected in a network with compatible approved Ishida instruments, to share common PLU data, for totalisation across instruments ('floating system'), and to accumulate and retrieve management information.

In addition, the network may be interfaced with a computer for the collection of management data, or the downloading of PLU data.

Note: The weighing and price-computing functions of each weighing instrument in the network are independent, and the removal, repair or replacement of a particular weighing instrument does not necessitate reverification of any other weighing instrument in the network.

#### 9. Description of Variant 8

**Description of Variant 7** 

8.

#### approved on 1/11/11

Any model of the UNI-7 series as identified for the pattern and variants 1 to 5 but as single interval instruments having specifications as listed in Table 2 below.

Maximum	Verification	Maximum	Load Cell	Load Cell
Capacity ( <i>Max</i> )	Scale Interval	Tare Capacity	Make/Model	Maximum Capacity
	( <i>e</i> )	( <i>T</i> =)		E <sub>max</sub>
15 kg	0.005 kg	5.995 kg	Ishida CLC-25 L or NMB CLC-25N	25 kg
30 kg	0.01 kg	14.99 kg	Ishida CLC-50 L or NMB CLC-50N	50 kg

#### TABLE 2

#### 10. Description of Variant 9

#### approved on 1/11/11

Certain models of the UNI-5 series similar to the pattern and variants 1 to 4 and 6 but as single interval instruments having specifications as listed in Table 2.

Approved models are the UNI-5 B, UNI-5P, UNI-5 EV1 and UNI-5 SS.

#### 11. Description of Variant 10

#### approved on 1/11/11

Any model of the UNI-5 series as identified for variant 9 but as multi-interval instruments having specifications as listed in Table 1.

#### TEST PROCEDURE No 6/4D/343

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*.

#### Tests

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.

#### approved on 15/02/10



(a) Ishida Model UNI-7EV2 Weighing Instrument



(b) Typical Sealing Arrangements



(a) Ishida Model UNI-7P Weighing Instrument



(b) Ishida Model UNI-7B Weighing Instrument



(a) Ishida Model UNI-7EV1 Weighing Instrument



(b) Ishida Model UNI-7P as a self-service type instrument (with additional self-service keyboards)



(b) Ishida Model UNI-7H Weighing Instrument



(b) Typical Sealing Arrangements – Model UNI-7H

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