

Australian Government

Department of Industry, Science and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval NMI 6/14G/15

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.

Digi Model HI-700 Automatic Catchweighing Instrument

submitted by	W W Wedde	erburn Pt	y Ltd
	101 Williamson Road		
	Ingleburn	NSW	2565.

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 51, *Automatic Catchweighing Instruments*, dated July 2004.

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.

Rev	Reason/Details	Date
0	Pattern & variants 1 to 6 approved – interim certificate issued	6/07/06
1	Pattern & variants 1 to 6 – certificate issued	15/09/06
2	Pattern & variants 1 to 6 reviewed & updated & variant 7	27/10/11
	approved – certificate issued	
3	Pattern amended (sealing) & variants 8 to 10 approved –	28/05/19
	certificate issued	
4	Review date removed & variants 11 to 16 approved –	07/07/25
	certificate issued	

DOCUMENT HISTORY

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/14G/15' 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 Certificates No S1/0/A or No S1/0B.

Special

This approval shall NOT be used in conjunction with General Certificate No 6B/0.

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

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Phillip Mitchell A/g Manager Policy And Regulatory Service

1. Description of Pattern

approved on 6/07/06 amended on 28/05/19

A Digi model HI-700 class Y(a) automatic catchweighing instrument (Figures 1 and 2) which is approved for use to weigh objects while in motion. A static non-automatic weighing mode is also available in which the conveyors do not operate.

1.1 Details

The pattern is a single interval class Y(a) automatic catchweighing instrument with a maximum capacity of 3 kg, a verification scale interval of 0.001 kg and a minimum capacity of 0.05 kg.

Instruments are approved for use over a temperature range of 0 °C to +30 °C and must be so marked.

The instrument operates dynamically (package in motion on the weighing receptor). The maximum belt speed of the weighing receptor is 1.19 m/s (71.5 m/min).

The throughput (packs per minute) is variable and depends on several factors, e.g. size of label, size and weight of pack. The instrument has facilities to detect errors and provide error messages for situations close to and outside the limits.

Instruments may be fitted with sockets (output interfacing capability) for the connection of peripheral and/or auxiliary devices, and for the external programming of PLU and labelling data.

The pattern comprises:

- A terminal/indicator with an LCD touchscreen display/keyboard;
- A weighing unit and conveyor system with associated controller; and
- A printing unit located above the conveyor.

1.2 Zero

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, capable of setting zero to within $\pm 0.25e$.

The instrument has an automatic zero-setting device which operates periodically to zero the instrument.

Zero is automatically corrected to within $\pm 0.25e$ whenever the instrument comes to rest within 0.5e of zero (this may operate whilst the conveyors are operating).

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

1.3 Tare

A semi-automatic subtractive taring device of up to 1.500 kg capacity may be fitted. This device may only be activated (tare obtained) whilst the conveyors are stationary, however the value obtained may continue to be used when the instrument is set into automatic mode (conveyors operating).

The instrument has a pre-set subtractive taring device of up to 1.500 kg capacity. Pre-set tare values are stored in association with product-look-up (PLU) items.

1.4 Operation

In dynamic mode, an object to be weighed moves from the infeed and separator conveyors onto the weighing receptor conveyor and is weighed dynamically. After weighing, the object continues onto the outfeed conveyor where a label is then printed and applied to the object.

1.5 Terminal/Indicator (Figure 2)

The terminal/indicator is fitted with a touchscreen LCD display and keyboard. This is used to control the system and store data such as system parameters (e.g. conveyor speed, printing unit position and label format).

It displays the weight (in kg).

Instruments have unit price to \$9999.99/kg, a product-look-up (PLU) facility and a separate 'tare' display.

1.6 Weighing Unit and Conveyor (Figure 3)

The weighing unit which uses an HBM model PW 15 C3 load cell of 15 kg capacity supporting a load receptor which has a belt conveyor of 285×470 mm.

The conveyor system comprises an infeed and separator conveyor, the weighing unit/conveyor and an outfeed conveyor, with an associated electric motor and drive arrangement for each conveyor.

Optical sensors are located along the conveyor path. The infeed conveyors space the objects to be weighed, the side guides are manually adjusted to suit the pack size.

1.7 **Printing Unit**

The printing unit is comprised of a thermal printer and a compressed air unit used to apply the label to the weighed object.

1.8 Descriptive Markings and Notices

Instruments carry the following markings, grouped together in a clearly visible place on the instrument, either on a descriptive plate fixed near the indicating device or on the indicating device itself.

Manufacturer's mark, or name written in full Importer's mark, or name written in full	Digi Europe Ltd WEDDERBURN
Model designation	
Serial number	
Accuracy class	Y(a)
Pattern approval mark	6/14G/15
Maximum capacity	<i>Max</i> kg
Minimum capacity	<i>Min</i> kg
Verification scale interval	<i>e</i> = kg
Maximum subtractive tare	<i>T</i> = kg
Maximum conveyor speed	m/min
Special temperature limits	0 °C to +30 °C

1.9 Sealing Provision

Provision is made for the calibration adjustments to be sealed by the application of two destructible adhesive labels over the cover of the controller cabinet beneath the load receptor (Figure 4) to prevent unauthorised access.

Alternatively the instrument is sealed by applying destructible adhesive label(s) over two sides of the A/D assembly unit located within the controller cabinet underneath the load receptor to prevent unauthorised access (Figure 8).

1.10 Verification Provision

Provision is made for the application of a verification mark.

2. Description of Variant 1

approved on 6/07/06

Single range instruments of certain capacities as listed below having up to 3000 verification scale intervals (and no less than 500 verification scale intervals):

- (i) Of up to 6 kg maximum capacity with a verification scale interval of not less than 1 g; and
- (ii) Of up to 12 kg maximum capacity with a verification scale interval of not less than 2 g.

3. Description of Variant 2

Multi-interval instruments of certain capacities as listed below having two partial weighing ranges, with up to 3000 verification scale intervals (and no less than 500 verification scale intervals) in each partial weighing range. Additionally the requirement that $Max_1/e_2 \ge 500$ (clause 3.3.3 of R76) shall be satisfied:

- (i) of up to 6 kg maximum capacity, with a smallest verification scale interval (e_1) of not less than 1 g; and
- (ii) of up to 12 kg maximum capacity, with a smallest verification scale interval (e_1) of not less than 2 g.

Instruments are marked with the 'Maximum capacity' and with the 'Verification scale interval' for both interval ranges, in addition to the other data specified in clause **1.8 Descriptive Markings and Notices**.

4. Description of Variant 3

Model WI-700 with a load receptor which has a belt conveyor of 400×470 mm.

5. Description of Variant 4

Models HI-700 SF (Figure 5) and WI-700 SF which have various components combined.

6. Description of Variant 5

With an additional printer located under the conveyor.

7. Description of Variant 6

Certain models with a load receptor which has a belt conveyor of 650 mm in length, in which case the approved belt speeds in metres per minute (m/min) are:

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- Model HI-700 up to 70 m/min; and
- Models HI-700 SF and WI-700 SF up to 52.5 m/min.

8. Description of Variant 7

Model MI-700 (Figure 6) which is similar to the model WI-700 (Variant 3) but with a load receptor which has a belt conveyor of 285×470 mm and having up to 12 kg maximum capacity with a verification scale interval of not less than 2 g.

The maximum belt speed of the weighing receptor is 47.5 m/min.

9. Description of Variant 8

The pattern and variants 1 to 2 which have conveyors of various sizes (in-feed, load receptor and outfeed).

The instrument is nominally rated for a maximum throughput of 250 packs per minute.

10. Description of Variant 9

With modified software, designated World View (Figure 7).

The legally relevant software is contained within two dll files, identified as follows during the power-up sequence:

HeaderDisplay.dll	Version 1.0.0.10
HI710.dll	Version 1.0.0.79

The dll files can only be accessed and modified via the secured switch on the A/D board. The files are protected by a checksum, any modification in the dll files will result in a change in the checksum value and an error being detected.

Access to the Windows operating system is password-protected; the weighing mode is inactive when accessed.

11. Description of Variant 10

Model HI-700-HS which has a LV-67P mainboard and associated LS75 power supply unit and picoUPS-100 uninterruptible power supply (UPS).

11.1 Software

The software is designated 2.xx.xx (where xx.xx refers to the identification of nonlegally relevant software).

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

12. Description of Variant 11

The DIGI Model HI-700 II (Figure 9) which is similar to the pattern and variant 1 (single interval), except the following differences.

- A 15-inch colour touch screen mounted into the cabinet.
- A series II range type conveyor as shown in Figure 10.
- LV-67P mainboard.

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The weighing unit maybe fitted with an HBM model PW 15 C3 or C6 load cell with supporting a load receptor which has a split belt conveyor of 285 x 470 mm up to 660 mm.

The instrument is approved to configure up to 6000 verification scale intervals when an HBM model PW15 C6 load cell is installed.

Maximum conveyor belt speed of the instrument is 71.5 m/minute (250 packs per minute).

12.1 Software

The software is designated as follows:

- Terminal: World View software version number 3.x.x.xxx, where x = 0...9, and refers to the identification of non-legally relevant part of software.
- ADPD: HI710.dll (version 1.0.0.79), and HeaderDisplay.dll (version 1.0.0.10). The dll files can only be accessed and modified via the secured switch on the A/D board.

Access to the Windows operating system is password-protected; the weighing mode is inactive when accessed.

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

13. Description of Variant 12

approved on 07/07/25

The DIGI Model HI-700L II (Figure 11) which is similar to variant 11 (model HI-700 II) and variant 1, but with a longer weighing unit and longer infeed conveyor.

The HI-700L II is fitted with the same new touchscreen, conveyor, and mainboard as described in **Variant 11**.

The weighing unit maybe fitted with an HBM model PW 15 C3 or C6 load cell with supporting a load receptor which has a split belt conveyor of 285 x 780 mm.

The instrument is approved to configure up to 6000 verification scale intervals when an HBM model PW15 C6 load cell is installed.

Maximum conveyor belt speed of the instrument is 65 m/minute.

13.1 Software

The software of this variant is the same as described in **12.1 (Variant 11).**

14. Description of Variant 13

approved on 07/07/25

The DIGI Model HI-700W II (Figure 12) which is similar to variant 11 (model HI-700 II), variant 3 (model WI-700), and variant 1, but with a wider conveyor and weighing unit.

The HI-700W II is fitted with the same new touchscreen, conveyor, and mainboard as described in **Variant 11**.

The weighing unit maybe fitted with an HBM model PW 15 C3 or C6 load cell with supporting a load receptor which has a split belt conveyor of 400 x 470 mm.

The instrument is approved to configure up to 6000 verification scale intervals when an HBM model PW15 C6 load cell is installed.

Maximum conveyor belt speed of the instrument is 24 m/minute.

May also be known as Wedderburn model WI-700 II.

14.1 Software

The software of this variant is the same as described in **12.1 (Variant 11).**

15. Description of Variant 14

approved on 07/07/25

The DIGI Model HI-700HS II (Figure 13) which is similar to variant 11 (model HI-700 II), variant 10 (model HI-700 HS), and variant 1 with a high-speed conveyor.

The HI-700HS II is fitted with the same new touchscreen, conveyor, and mainboard as described in **Variant 11**.

The weighing unit maybe fitted with an HBM model PW 15 C3 or C6 load cell with supporting a load receptor which has a split belt conveyor of 285 x 400 mm.

The instrument is approved to configure up to 6000 verification scale intervals when an HBM model PW15 C6 load cell is installed.

Maximum conveyor belt speed of the instrument is 71.5 m/minute.

15.1 Software

The software of this variant is the same as described in **12.1 (Variant 11).**

16. Description of Variant 15

approved on 07/07/25

The DIGI Model MI-700 II (Figure 14) which is similar to the pattern, variant 1, and variant 7 (model MI-700) on a single stand but with the Series II features.

The MI-700 II is fitted with the same new touchscreen, conveyor, and mainboard as described in **Variant 11**.

The weighing unit maybe fitted with an HBM model PW 15 C3 or C6 load cell with supporting a load receptor which has a split belt conveyor of 285 x 470 mm.

The instrument is approved to configure up to 6000 verification scale intervals when an HBM model PW15 C6 load cell is installed.

Maximum conveyor belt speed of the instrument is 47.5 m/minute.

16.1 Software

The software of this variant is the same as described in **12.1 (Variant 11).**

17. Description of Variant 16

approved on 07/07/25

The DIGI Model MI-700W II (Figure 15) which is similar to variant 15 (model MI-700 II) but with a wider conveyor and weighing unit.

The MI-700W II is fitted with the same new touchscreen, conveyor, and mainboard as described in **Variant 11**.

The weighing unit maybe fitted with an HBM model PW 15 C3 or C6 load cell with supporting a load receptor which has a split belt conveyor of 400 x 470 mm.

The instrument is approved to configure up to 6000 verification scale intervals when an HBM model PW15 C6 load cell is installed.

Maximum conveyor belt speed of the instrument is 47.5 m/minute.

17.1 Software

The software of this variant is the same as described in 12.1 (Variant 11).

TEST PROCEDURE No 6/14G/15

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 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.

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



Digi Model HI-700 Automatic Catchweighing Instrument



FIGURE 6/14G/15 - 2

Terminal/Indicator



Typical Conveyor



Typical Seal Locations



Typical Sealing



Model MI-700 (Variant 7)

Max 6.000kg e=0.0 GROSS <u>Weight</u> O.(kg zero	01kg Min 0.050kg T=	3.000kg ogram Tare 0.000	<u>Unit Pric</u> \$/ kg	0.76	03/02/2015 08:44 Pack Price 0.00
Current User: Er	ngineer 8.48	<u>Speed pp</u>	m: 60	U	
	<u>t Number</u> S		PLU Nai test PLU		
Pack Date 03/02/2015 Sell By Date	Best Before Date 08/02/2015 Use By Date	Weighing Mode Catchweight Labeller Status:		Autor	matic
03/02/2015	03/02/2015				
		Max Weight 0.0000 kg Min Weight 0.0000 kg	Good Packs Unstable Overweight Underweight	Totals 6 0 0 0	
General Informatio	n Label Informa	ation Total Informatio	n Text Infom	nation Operatio	onal Functions

Example of World View Operating Screen (Variant 9)



FIGURE 6/14G/15-8

Location of A/D Unit Within Controller Cabinet (A/D Unit to be Sealed) Alternative Sealing Arrangement



DIGI Model HI-700 II (Variant 11)

FIGURE 6/14G/15 - 10



DIGI Model II Range Type Conveyor (Variant 11)

FIGURE 6/14G/15 - 11



DIGI Model HI-700L II (Variant 12) With Top and Bottom Labellers



DIGI Model HI-700W II (Variant 13) With Top and Bottom Labellers



DIGI Model HI-700HS II (Variant 14) With Top and Bottom Labellers and Additional Conveyor Units

FIGURE 6/14G/15 - 14



DIGI Model MI-700 II (Variant 15)



DIGI Model MI-700W II (Variant 16)

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