



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

Certificate of Approval NMI 6/14G/29

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.

Bilanciali model Venus 300 “6” Automatic Catchweighing Instrument

submitted by National Weighing & Instruments Pty Ltd
1/88 Magowar Road
Girraween NSW 2145

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 August 2009.

This approval becomes subject to review on 1/05/22, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern and variant 1 approved – certificate issued	1/05/17

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/14G/29' and only by persons authorised by the submitter.

It is the submitter'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.

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

Special

Certain aspects of this instrument (in particular transaction record printing formats) are able to be configured by the user. Whilst NMI believes that acceptable formats 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 their powers under Regulation 60 of the
National Measurement Regulations 1999.



Dr A Rawlinson

TECHNICAL SCHEDULE No 6/14G/29

1. Description of Pattern

approved on 1/05/17

A Bilanciai model Venus 300 “6” class Y(a) automatic catchweighing instrument (Figure 1 and Table 1) which is only approved for use to weigh objects statically.

Instruments have a price computing facility and are intended for use as weigh/price labellers.

1.1 Details

The pattern is a single interval class Y(a) automatic catchweighing instrument with a maximum capacity of 6 kg, a verification scale interval of 0.002 kg and a minimum capacity of 0.04 kg.

Instruments are approved for use over a special temperature range of 0°C to +40°C and must be so marked.

The instrument uses an in-feed conveyor to introduce the object to be weighed (package) to the weighing receptor conveyor. The package is weighed statically (package stops on the weighing receptor). Following this the package labelled by the system. The maximum belt speed of the weighing receptor is 70 m/min.

Instruments may be fitted with data 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 display and keypad;
- A weighing module and conveyor system with associated controller; and
- One to four printing units above and/or below the conveyor.

1.2 Zero

The instrument has a semi-automatic zero-setting and 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 automatic zero-setting device must be active and operate at least once every 17 minutes during automatic operation.

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

1.3 Tare

The instrument has a pre-set subtractive taring device of up to 4.000 kg capacity. Pre-set tare values may be stored in association with product-look-up (PLU) items.

1.4 Operation

A package to be weighed moves from the infeed and separator conveyors onto the weighing receptor conveyor and then stops to be weighed statically. The system uses photocells to determine where the packs have to be stopped on the weighing receptor. After weighing, the object continues onto the outfeed conveyor where a label is then printed and applied to the object.

If the instrument is unable to obtain an acceptable weight reading, error messages are displayed and a label is not printed.

1.5 Terminal/Indicator

The terminal/indicator is fitted with an LCD colour display, as well as a keypad (Figure 2). This is used to control the system and store data such as system parameters.

It displays the weight (in kg).

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

1.6 Weighing Unit

The weighing unit uses a HBM model PW22 load cell of 20 kg capacity supporting a load receptor with belt conveyor of 310 mm (W) × 440 (L) mm

1.7 Printing Unit

The printing unit is comprised of a printer with associated electronics, utilising compressed air to apply the label to the weighed object.

Please note the Special Condition of Approval regarding printing formats.

1.8 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Bilanciai	
Importer's mark, or name written in full	National Weighing & Instrument Pty Ltd	
Model designation	
Serial number	
Accuracy class	Y(a)	
Pattern approval mark	NMI 6/14G/29	
Maximum capacity	<i>Max</i>/..... g or kg	#1
Minimum capacity	<i>Min</i> g or kg	#1
Verification scale interval	<i>e</i> =/..... g or kg	#1
Maximum subtractive tare	<i>T</i> = - g or kg	#2
Special temperature limits	0°C to 40°C	

#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*.

1.9 Sealing Provision

A calibration switch is located in the Terminal/Indicator behind a fixing screw for the case enclosure. Sealing is achieved by use of means such as a destructible adhesive label (or lead and wire or similar type seals) to seal access to the calibration switch as shown in Figure 3

1.10 Software

The A/D converter software is designated “Bilanciai 491021 x.x”, with x.x the release number version 1.1 or 1.2.

The main board software comprises two parts. The legally relevant part is designated “Sw.Metr: 3.x.xx”, where x.xx refers to the identification of non-legally relevant software. An example of the software version number is shown in Figure 4.

Software versions can be displayed by entering “ALT +V” via the keypad.

1.11 Verification Provision

Provision is made for the application of a verification mark.

2. Description of Variant 1

approved on 1/05/17

The pattern or variants of certain other capacities and load cells as listed in Table 1 below (the pattern is shown in **bold**).

TABLE 1

Model	Venus 300 “3”	Venus 300 “6”	Venus 300 “12”	Venus 300 “15”
Max capacity (Max)	≤ 3 kg	≤ 6 kg	≤ 12 kg	≤ 15 kg
Min Capacity (Min)	20 g	40 g	40 g	100 g
Verification Scale interval (e)	1 g	2 g	2 g	5 g
Max number of scale interval	≤ 3000	≤ 3000	≤ 6000	≤ 3000
Tare (T)	- 2.000 kg	- 4.000 kg	- 4.000 kg	- 10.000 kg
Load cell	HBM PW22 E _{max} = 10, 20 kg	HBM PW22 E _{max} = 20, 30 kg	HBM PW22 E _{max} = 20, 30 kg	Tedea 1042 E _{max} = 50, 75, 100 kg
	Tedea 1042 E _{max} = 10, 20 kg	Tedea 1042 E _{max} = 15, 20, 30 kg	Tedea 1042 E _{max} = 20, 30 kg	Scaime AB E _{max} = 65, 90 kg
Max Conveyor Speed	70 m/min for loads up to 6kg and 60 m.min for greater loads			

TEST PROCEDURE No 6/14G/29

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*.

FIGURE 6/14G/29 – 1



Bilanciai Model Venus 300 Automatic Catchweighing Instrument

FIGURE 6/14G/29 – 2



- 1) Display
- 2) Functional keys
- 3) Editing keys
- 4) Alphanumerical keyboard
- 5) Summing keys
- 6) Date keys

Terminal/Indicator – Touchscreen LCD Display/Keyboard

FIGURE 6/14G/29 – 3



(a) Sealing on calibration switch and load cell cable (seal by applying destructible adhesive label or lead and wire or similar type seals)



(b) Sealing on screw of load receptor (below the weighing receptor conveyor) to avoid opening of the protective shell

Typical Sealing

FIGURE 6/14G/29 – 4



Software identification

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