Australian Government
National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

No 6/14G/24

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

Digi Model WIL-700 Automatic Catchweighing Instrument

submitted by W W Wedderburn Pty 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 documents NMI R 51, *Automatic Catchweighing Instruments*, dated July 2004.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 December 2015, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/14G/24' 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.

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The National Measurement Institute reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

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

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

DESCRIPTIVE ADVICE

Pattern: approved 10 November 2010

- A Digi model WIL-700 class Y(a) automatic price-computing catchweighing instrument of up to 15 kg maximum capacity.

Variant: approved 10 November 2010

1. Certain Digi model WIW-700 class Y(a) automatic catchweighing instruments.

Technical Schedule No 6/14G/24 describes the pattern and variant 1.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/14G/24 dated 11 November 2010
Technical Schedule No 6/14G/24 dated 11 November 2010 (incl. Test Procedure)
Figures 1 to 3 dated 11 November 2010

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 6/14G/24

Pattern: Digi Model WIL-700 Automatic Catchweighing Instrument

Submittor: W W Wedderburn Pty Ltd
101 Williamson Road
INGLEBURN NSW 2565

1. Description of Pattern

A Digi model WIL-700 class Y(a) price-computing automatic catchweighing instrument (Figure 1) which is approved for use to weigh objects statically or dynamically.

Instruments are not for trading direct with the public, and are so marked.

1.1 Details

The pattern is a single interval class Y(a) automatic catchweighing instrument with a maximum capacity of 15 kg, a verification scale interval of 0.005 kg and a minimum capacity of 0.25 kg.

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

The instrument operates statically (package stops on the weighing receptor) or dynamically (package in motion on the weighing receptor). The maximum belt speed of the weighing receptor is 0.4 m/s (24 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 touch screen display;
- A weighing unit and conveyor system with associated controller; and
- One or more printing units, above and/or below 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 ±0.25*e*.

The instrument has an automatic zero-setting device which operates to zero the instrument at the interval of less than 22 minutes.

Zero is automatically corrected to within ±0.25*e* whenever the instrument comes to rest within 0.5*e* 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.

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1.3 Tare

A semi-automatic subtractive taring device of up to 5 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 or continuous mode (conveyors operating).

The instrument has a pre-set subtractive taring device of up to 5 kg capacity. Pre-set tare values are stored in association with product-look-up (PLU) items.

1.4 Operation

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

In continuous mode, an object to be weighed moves from the infeed and separator conveyors onto the weighing unit 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 Digi model *700 Series* terminal/indicator is fitted with an LCD colour touch screen display. 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, total (pack) price to $9999.99, a product-look-up (PLU) facility and a separate ‘tare’ display.

1.6 Weighing Unit and Conveyor (Figure 3)

The weighing unit uses a Teraoka type M load cell of 45 kg capacity supporting a load receptor which has a belt conveyor of 400 × 650 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 Digi model WIL-700 labeller and a compressed air unit used to apply the label to the weighed object. Alternative labeller units (e.g. DEL type 700 labeller), and means of applying the label, may be used.

1.8 Sealing Provision

Provision is made for the calibration adjustments to be sealed by means of destructible adhesive label(s) over two sides of the A/D assembly unit located within the controller cabinet to prevent unauthorised access (Figure 3).

1.9 Verification Provision

Provision is made for the application of a verification mark.

1.10 Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Digi Europe Ltd
Importer's mark, or name written in full	WEDDERBURN
Model designation	…..
Serial number	…..
Accuracy classes	Y(a)
Pattern approval mark	6/14G/24
Maximum capacity	*Max* ….. kg
Minimum capacity	*Min* …….kg
Verification scale interval	*e* = ……. kg
Maximum subtractive tare	*T* = - … kg
Maximum conveyor speed	…….. m/min
Special temperature limits	0°C to +30°C

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

2. Description of Variants

2.1 Variant 1

Certain Digi model WIW-700 class Y(a) automatic catchweighing instruments as listed below, which are similar to the WIL-700 (the pattern) except that they use a Teraoka type M load cell of 90 kg capacity and having wider conveyors of 628 × 775 mm.

- As single interval instruments of 30 kg maximum capacity with a verification scale interval of 0.010 kg; and
- As single interval instruments of 60 kg maximum capacity with a verification scale interval of 0.020 kg.

TEST PROCEDURE

Instruments should be tested in accordance with any relevant tests specified in the Uniform Test Procedures.

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

Non-automatic (static) Operation

The maximum permissible errors for increasing and decreasing loads on initial verification for loads, *m*, expressed in verification scale intervals, *e*, are:

± 0.5e for loads $0 \leq m \leq 500$;
± 1.0e for loads $500 < m \leq 2\,000$; and
± 1.5e for loads $2\,000 < m \leq 10\,000$.

- With the conveyor switched off, carry out a load test and an eccentricity test.

Automatic Operation

The maximum permissible errors for class Y(a) automatic catchweighing instruments for increasing and decreasing loads on initial verification/certification for loads, *m*, expressed in verification scale intervals, *e*, are:

± 1.5e for loads $0 \leq m \leq 500$;
± 2.0e for loads $500 < m \leq 2\,000$; and
± 2.5e for loads $2\,000 < m \leq 10\,000$.

- Prepare two test objects, one close to minimum capacity and the other close to the maximum capacity. The uncertainty of the test masses shall be equal to or better than 0.5*e*.
- The tests shall be conducted at the maximum rate at which the system will operate (i.e. introduce packages immediately after each other).
- Vary the position of the test masses across the load receptor.
- Conduct a test to ensure incorrect measurements do not occur due to items being provided to the instrument without adequate spacing.

TESTS – Use the following tests to determine compliance with the maximum permissible errors – n is a whole number.

TEST 1 – Maximum permissible error = ±1.5*e*

Test load = n*e*

Readings:	A: (n - 2)*e*	reject
	B: (n + 2)*e*	reject
	A < Readings < B	accept

TEST 2 – Maximum permissible error = ±2*e*

Test load = (n + 0.5)*e*

Readings:	A: (n - 2)*e*	reject
	B: (n + 3)*e*	reject
	A < Readings < B	accept

TEST 3 – Maximum permissible error = ±2.5*e*

Test load = n*e*

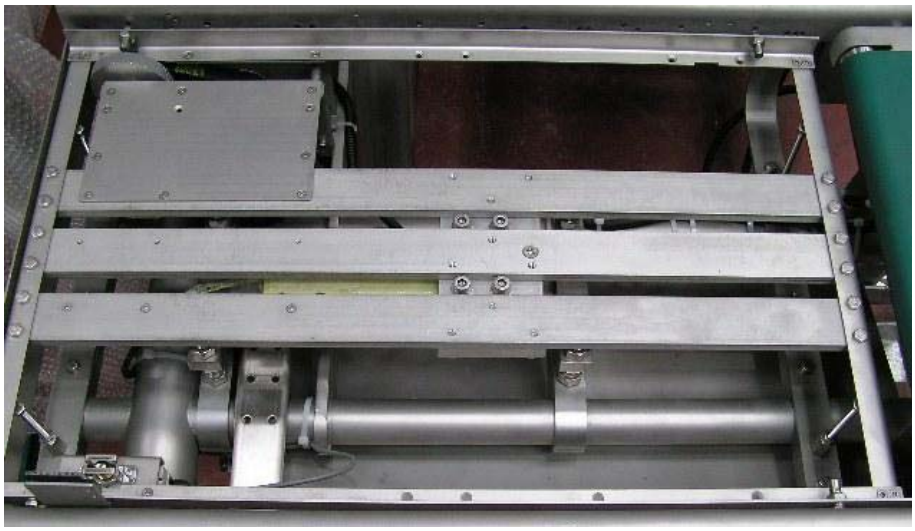
Readings:	A: (n - 3)*e*	reject
	B: (n + 3)*e*	reject
	A < Readings < B	accept

FIGURE 6/14G/24 – 1

Digi Model WIL-700 Automatic Catchweighing Instrument

FIGURE 6/14G/24 – 2

(a) Digi Model *700 Series* Terminal/Indicator

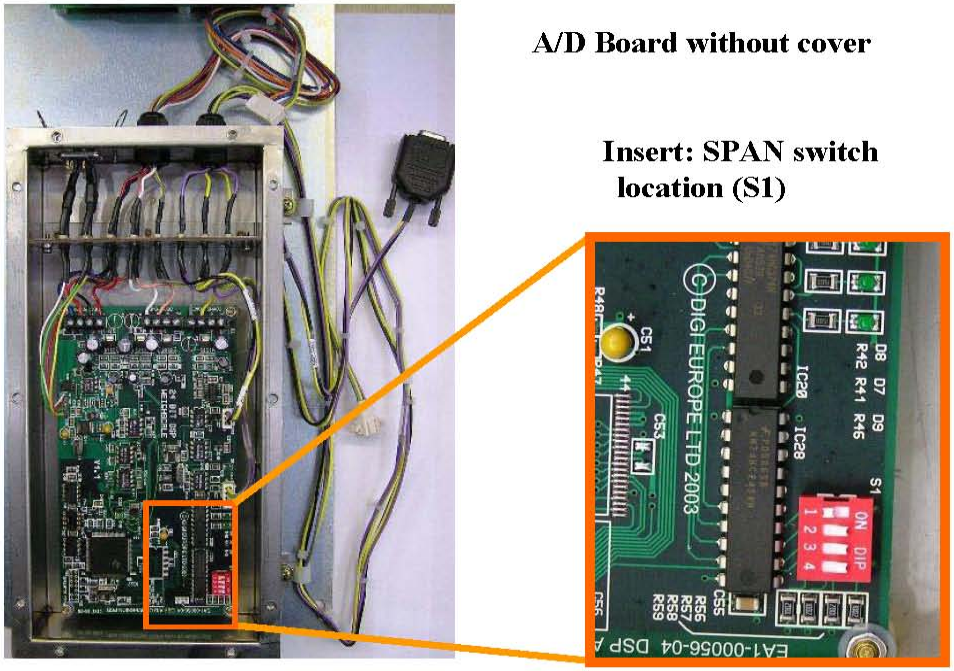


(b) Model WIL-700 – Weighing Unit (Conveyor Removed)

FIGURE 6/14G/24 – 3

SEALING ACROSS A/D BOARD BOX COVER

Sealing is obtained by screwing the cover plate onto the A/D board box and placing destructible adhesive labels across joins



Typical Sealing Provision