



**Australian Government**

**National Measurement  
Institute**

Bradfield Road, West Lindfield NSW 2070

## **Certificate of Approval**

### **NMI 6/4C/273**

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.

Teraoka Model DIGI DS-990 Weighing 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 document NMI R 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated July 2004.

This approval becomes subject to review on 1/03/17, and then every 5 years thereafter.

#### **DOCUMENT HISTORY**

<b>Rev</b>	<b>Reason/Details</b>	<b>Date</b>
0	Pattern & variants 1 & 2 approved – certificate issued	10/02/12

## CONDITIONS OF APPROVAL

### General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/4C/273' 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 Certificates No S1/0/A or No S1/0B.

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

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke at the bottom.

## TECHNICAL SCHEDULE No 6/4C/273

### 1. Description of Pattern

approved on 10/02/12

A Teraoka model DIGI DS-990 class  $\text{III}$  single interval self-indicating non-automatic weighing instrument (Figure 1a and Table 1) of 30 kg maximum capacity with a verification scale interval of 0.01 kg.

Instruments shall be marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording).

#### 1.1 Basework

The Teraoka model WPP basework has the load receptor directly supported by a single load cell. The load receptor has nominal dimensions of 380 × 480 mm, and typically uses a stainless steel type construction.

#### 1.2 Load Cell

An HBM model PW15AH load cell of 50 kg maximum capacity is used.

#### 1.3 Indicator

A Teraoka model DI-990 indicator (Figure 1b) is used. The indicator is fitted with an LED display for display of the weight value and may be mounted on a column attached to the base.

The indicator operates from mains AC power (240 V AC, 50 Hz) or a rechargeable battery supply of 6 V DC.

#### 1.4 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.

#### 1.5 Tare

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

#### 1.6 Display Check

A display check is initiated whenever power is applied.

#### 1.7 Levelling

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

#### 1.8 Verification Provision

Provision is made for the application of a verification mark.

## 1.9 Sealing Provision

Provision is made for access to the calibration switch within the instrument to be sealed either using a 'lead and wire' type seal or use of destructible adhesive labels across the join in the indicator housing on two sides of the indicator as shown in Figure 2.

## 1.8 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Teraoka
Name or mark of manufacturer's agent	WEDDERBURN
Indication of accuracy class	Ⓜ
Pattern approval mark for the instrument	NMI 6/4C/273
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
Serial number of the instrument	.....

#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*.

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

## 2. Description of Variant 1 approved on 10/02/12

Teraoka model DIGI DS-990 instruments of certain other capacities and using other capacity load cells as listed in Table 1 below (the pattern is shown in bold).

## 3. Description of Variant 2 approved on 10/02/12

With a Flintec model PC6 load cell of certain capacities as listed in Table 1.

TABLE 1

Maximum Capacity ( <i>Max</i> )	Verification Scale Interval ( <i>e</i> )	Maximum Subtractive Tare Capacity ( <i>T</i> = - ...)	Load Cell Make, Model and Capacity
15 kg	0.005kg	7.495 kg	Flintec PC6 22 kg
<b>30 kg</b>	<b>0.01 kg</b>	<b>14.99 kg</b>	<b>HBM PW15AH 50 kg</b>
30 kg	0.01 kg	14.99 kg	Flintec PC6 50 kg
60 kg	0.02 kg	29.98 kg	HBM PW15AH 100 kg
60 kg	0.02 kg	29.98 kg	Flintec PC6 100 kg
150 kg	0.05 kg	74.95 kg	Flintec PC6 200 kg

## TEST PROCEDURE No 6/4C/273

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 6/4C/273 – 1



(a) Teraoka Model DIGI DS-990 Weighing Instrument



(b) Teraoka Model DI-990 Indicator

FIGURE 6/4C/273 – 2



Showing Typical Sealing Methods

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