



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

Certificate of Approval NMI 6/4C/99

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 Seiko Model DC-180 Weighing Instrument

submitted by W W Wedderburn Pty Ltd
 101 Williamson Road
 Ingleburn NSW 2015

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 **1/12/21**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern and variants 1 & 2 approved – interim certificate issued	20/11/97
1	Pattern and variants 1 & 2 approved – certificate issued	11/03/98
2	Pattern and variants 1 & 2 amended (review date & technical schedule; Clause 1.2, 2.1, 2.2) – notification of change issued	5/08/04
3	Pattern and variants 1 & 2 amended (review date, filing advice, address & test procedure) – notification of change issued	16/11/10
4	Pattern & variants 1 & 2 reviewed & updated – certificate issued	8/03/17

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI (or NSC) 6/4C/99' 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 their powers under Regulation 60 of the
National Measurement Regulations 1999.

Signed
Stephen Horrocks

TECHNICAL SCHEDULE No 6/4C/99

1. Description of Pattern

approved on 20/11/97

An Teraoka Seiko model DC-180 class  self-indicating price-computing non-automatic weighing instrument (Figure 1) of 10 kg maximum capacity with a verification scale interval of 0.002 kg.

Instruments may be fitted with output sockets (output interfacing capability) for the connection of auxiliary and/or peripheral devices and are either battery-operated, or powered by 240 V AC (mains power).

Instruments are not to be used for retail trading use and are so marked.

1.1 Zero

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

The initial zero-setting device has a nominal range of not more than 4% 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 and/or a keyboard-entered pre-set subtractive taring device, each of up to 9.998 kg, may be fitted.

1.3 Display Check


A display check is initiated whenever power is applied.

1.4 Levelling

The instrument is provided with adjustable feet and a level indicator.

1.5 Descriptive Markings and Notices

Instruments are marked with the following data, together in one location, in the form shown at right:

Manufacturer's mark, or name written in full
Name or mark of manufacturer's agent
Indication of accuracy class	
Pattern approval number for the instrument	NMI/NSC 6/4C/99
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 TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

1.6 Verification Provision

Provision is made for the application of a verification mark.

1.7 Sealing Provision

Provision is made for the calibration adjustments to be sealed by means of destructible labels over the access hole located on the underside of the instrument and over the casing joint on either side of the instrument.

1.8 Management Functions

Instruments may be fitted with a number of management functions which are not approved for trade use, including 'set point' and 'counting'.

2. Description of Variant 1

approved on 20/11/97

Model DC-180 of 25 kg maximum capacity with a verification scale interval of 0.005 kg.

A semi-automatic and/or a keyboard-entered pre-set subtractive taring device, each of up to 9.995 kg, may be fitted.

3. Description of Variant 2

approved on 20/11/97

Instruments may be connected with an additional (external) NMI approved basework, in which case instruments are marked NMI (or NSC) No S349 in addition to NMI (or NSC) No 6/4C/99.

Instruments shall be used with a maximum of 2500 verification scale intervals as described in the documentation of NMI (or NSC) No S349. The internal basework shall be configured as:

25 kg version:	Max = 25 kg	e = 10 g	T = -25 kg; or
	Max = 12.5 kg	e = 5 g	T = -9.995 kg
10 kg version:	Max = 10 kg	e = 5 g	T = -9.995 kg; or
	Max = 5 kg	e = 2 g	T = -5 kg

The basework to be used is selected using the 1/2 button and is indicated by either the 'SCALE 1' or 'SCALE 2' light illuminating.

The counting functions of the two platforms may interact, however the weighing and taring functions are independent and do not interact.

TEST PROCEDURE

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/99 – 1



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