



**Australian Government**  
**National Measurement  
Institute**

Bradfield Road, West Lindfield NSW 2070

**Cancellation**  
**Supplementary Certificate of Approval**  
**No S485**

Issued by the Chief Metrologist under Regulation 60  
of the  
*National Measurement Regulations 1999*

This is to certify that the approval for use for trade granted in respect of the  
Teraoka Model DI-300SS Digital Indicator

submitted by       W W Wedderburn Pty Ltd  
                          90 Parramatta Road  
                          Summer Hill   NSW   2130

has been cancelled in respect of new instruments as from 1 April 2012.

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, appearing to be 'M. J. ...', written over a horizontal line.



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This is to certify that an approval for use for trade has been granted in respect of the

Teraoka Model DI-300SS Digital Indicator

submitted by           W W Wedderburn Pty Ltd  
                              90 Parramatta Road  
                              Summer Hill   NSW   2130.

**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.

**CONDITIONS OF APPROVAL**

This approval becomes subject to review on 1 January 2012, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI S485' and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S485' in addition to the approval number of the instrument.

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.

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.

The values of the performance criteria (maximum number of scale intervals etc.) applicable to an instrument incorporating the pattern approved herein shall be within the limits specified herein and in any approval documentation for the other components.

#### DESCRIPTIVE ADVICE

**Pattern:** approved 18 December 2006

- A Teraoka (also known as Digi) model DI-300SS single interval digital indicator.

Technical Schedule No S485 describes the pattern.

#### FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No S485 dated 19 December 2006

Technical Schedule No S485 dated 19 December 2006 (incl. Table 1 and Test Procedure)

Figures 1 and 2 dated 19 December 2006

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, appearing to be 'J. G. T.', located in the bottom right corner of the page.

TECHNICAL SCHEDULE No S485

**Pattern:** Teraoka Model DI-300SS Digital Indicator

**Submittor:** W W Wedderburn Pty Ltd  
90 Parramatta Road  
Summer Hill NSW 2130

**1. Description of Pattern**

A Teraoka model DI-300SS single interval digital mass indicator (Table 1 and Figure 1) which is approved for use with up to 7500 verification scale intervals.



Note: The indicator may also be known as a Digi model DI-300SS.

The instrument has an LED type display including provision for display of the weight value.

Instruments may be fitted with output sockets (output interfacing capability) for the connection of auxiliary and/or peripheral devices.

This approval does not include the use of the indicator as an automatic weighing instrument, unless specifically mentioned in a certificate of approval for such an instrument.

TABLE 1 – Specifications

Maximum number of verification scale intervals	up to 7500 (Class  ) or up to 1000 (Class  )
Minimum sensitivity	1.33 $\mu$ V/scale interval
Excitation voltage	10 V DC
Maximum excitation current	233 mA

**1.1 Zero**

Zero may be automatically corrected to within  $\pm 0.25e$  whenever the instrument comes to rest within  $0.5e$  of zero.

If the instrument comes to rest outside that range but within the zero setting range, zero may be set by pressing the zero button.

The instrument has a semi-automatic zero-setting device (to set the instrument to within  $\pm 0.25e$  of zero) with a nominal range of not more than 4% of the maximum capacity of the instrument.

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

## **1.2 Tare**

A semi-automatic subtractive taring device and/or a pre-set tare device of up to the maximum capacity of the instrument may be fitted.

When the pre-set tare device is fitted, and the maximum capacity of the instrument is greater than 100 kg, the instrument shall be marked NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

Pre-set tare values may be stored and recalled.

## **1.3 Display Check**

A display check is initiated whenever power is applied.

## **1.4 Power Supply**

The instrument operates from the mains AC power supply.

## **1.5 Additional Features**

The indicator also has certain additional functions (e.g. hold functions, item counting, set point controls). The additional functions (other than the indications of measured mass, i.e. gross, tare, net, displayed either on the indicator or on an auxiliary or peripheral device), are not approved for trade use.

## **1.6 Interfaces**

The indicator may be fitted with interfaces for the connection of auxiliary and/or peripheral devices. Any interfaces shall comply with clause 5.3.6 of document NMI R76 (the basic intent of which is that it shall not be possible to alter weighing results via the interfaces).

Any measurement data output from the instrument or its interfaces shall only be used for trade in compliance with Supplementary Certificate No S1/0/A (in particular in regard to the data and its format).

Note particularly that this approval does not include the use of the indicator as an automatic weighing instrument, unless specifically mentioned in a certificate of approval for such an instrument.

Indications other than the indications of measured mass (i.e. gross, tare, net, totals) displayed either on the indicator or on an auxiliary or peripheral device, are not for trade use.

Data derived from any analog output or interface shall not be used for trade use.

Instruments may be fitted with RS232 and/or ethernet (client) serial data interfaces.

## 1.7 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	Ⓜ or ⓂⓂ
Maximum capacity	<i>Max</i> ..... kg #1
Minimum capacity	<i>Min</i> ..... kg #1
Verification scale interval	<i>e</i> = .... .. kg #1
Maximum subtractive tare	<i>T</i> = - .. .. kg #2
Serial number of the instrument	.....
Pattern approval mark for the indicator	NMI S485
Pattern approval mark for other components	..... #3

#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*.

#3 May be located separately from the other markings.

In addition a marking of 'NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC', may be required (see 1.2 Tare, above).

## 1.8 Sealing Provision

It can be checked that the switches within the indicator housing have been set in the correct 'locked' state (to prevent adjustment without breaking the seals) by the following:

- Press and hold the ZERO key. Whilst depressing the zero button, enter the code 142. If the display shows "Sn off" this indicates that the adjustment switch is in the 'Locked' state. Otherwise (e.g. if "SPEC ..." is temporarily displayed and then "00") the adjustment switch is not in the 'locked' state and sealing of the instrument will not prevent adjustment.

Provision is made for sealing the instrument by preventing access to the switches within the indicator housing. This may be achieved by use of destructible adhesive labels, one at each side of the indicator (over the join in the indicator housing) and another to cover holes in the indicator housing which provide access to the switches (Figure 2).

## 1.9 Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

## TEST PROCEDURE

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

### **Maximum Permissible Errors at Verification/Certification**

For medium accuracy class  $\text{III}$  instruments, the maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads,  $m$ , expressed in verification scale intervals,  $e$ , are:

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

For ordinary accuracy class  $\text{IIII}$  instruments, the maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads,  $m$ , expressed in verification scale intervals,  $e$ , are:

- $\pm 0.5 e$  for loads  $0 \leq m \leq 50$ ;
- $\pm 1.0 e$  for loads  $50 < m \leq 200$ ; and
- $\pm 1.5 e$  for loads  $200 < m \leq 1\,000$ .

FIGURE S485 – 1



TERAOKA Model DI-300SS Digital Indicator



FIGURE S485 – 2



Sealing arrangement