



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

Bradfield Road, West Lindfield NSW 2070

**Cancellation**  
**Supplementary Certificate of Approval No S431**

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

Ohaus Model CD-11 Digital Indicator

submitted by           Ohaus Corporation  
                                  19A Chapin Road  
                                  Pine Brook    NJ    07058  
                                  USA

has been cancelled in respect of new instruments as from 1 February 2011.

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.



# Australian Government

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## National Standards Commission

12 Lyonpark Road, North Ryde NSW 2113 Australia

### Supplementary Certificate of Approval

### No S431

Issued 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

Ohaus Model CD-11 Digital Indicator

submitted by Ohaus Corporation  
19A Chapin Road  
Pine Brook NJ 07058  
USA.

**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.

### CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 March 2009, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No S431 and only by persons authorised by the submitter.

Instruments incorporating a digital indicator purporting to comply with this approval shall be marked NSC No S431 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 Commission 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 the Commission's Document NSC P 106.

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.

The Commission reserves the right to examine any instrument or digital indicator 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.

### DESCRIPTIVE ADVICE

**Pattern:** approved 4 February 2004

- An Ohaus model CD-11 digital indicator.

**Variant:** approved 4 February 2004

1. Model CW-11 digital indicator.

Technical Schedule No S431 describes the pattern and variant 1.

### FILING ADVICE

The documentation for this approval comprises:

Supplementary Certificate of Approval No S431 dated 1 March 2004  
Technical Schedule No S431 dated 1 March 2004 (incl. Table 1 and Test Procedure)  
Figures 1 to 4 dated 1 March 2004

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.



TECHNICAL SCHEDULE No S431

**Pattern:** Ohaus Model CD-11 Digital Indicator

**Submittor:** Ohaus Corporation  
19A Chapin Road  
Pine Brook NJ 07058  
USA.

### 1. Description of Pattern

An Ohaus model CD-11 single interval digital mass indicator (Table 1 and Figure 1) which is approved for use with up to 10 000 verification scale intervals.

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

TABLE 1 – Specifications

Maximum number of verification scale intervals	10 000
Minimum sensitivity	1.0 $\mu$ V/scale interval
Excitation voltage	5 V DC
Maximum excitation current	57.5 mA

#### 1.1 Zero

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

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

#### 1.2 Tare

A semi-automatic subtractive taring device of up to the maximum capacity of the instrument may be fitted. When the taring device is in use, the gross value and tare value may be displayed temporarily by the use of the G/N/T button.

#### 1.3 Power Supply

Power supply may be either:

- 9 V DC supplied by an AC/DC mains adaptor or other DC power source; or
- batteries.

Note: The AC/DC mains adaptor supplied was an Ohaus model S090050D31 power supply (output 9 V DC, 500 mA) – the submittor should be consulted regarding the acceptability of alternative power supply units or other power source.

## 1.4 Display Check

A display check is initiated whenever power is applied.

## 1.5 Additional Features

The indicator also has an additional 'counting' function which can be assigned to a function key of the indicator. The additional function (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) is not approved for trade use.

## 1.6 Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Ohaus Corporation
Name or mark of manufacturer's agent	.....
Indication of accuracy class	Ⓜ
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	NSC No S431
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, instruments not greater than 100 kg capacity shall carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

## 1.7 Verification/Certification Provision

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

## 1.8 Sealing Provision

Provision is made for the calibration adjustments to be sealed by removal of a 'CAL jumper' within the instrument and then sealing to prevent access within the instrument (Figure 2).

To check whether the 'CAL jumper' has been removed:

- with the instrument switched on and in weighing mode, press and hold the G/N/T button for approximately 4 seconds - MENU will appear.

- release the G/N/T button. If 'set up' appears then the 'CAL jumper' has been removed; if 'Cal' appears then the 'CAL jumper' has NOT been removed.
- Removing power from the indicator is a simple means of exiting from menus at this stage.

Once it has been ensured that the 'CAL jumper' has been removed, the instrument may be sealed by means of a screw and lead & wire seal with a destructible label preventing access to the sealing screw (Figure 2), or by means of destructible labels over the join in the indicator casing, at each side of the indicator.

## 2. Description of Variant 1

Ohaus model CW-11 indicator similar to the pattern but in a stainless steel housing (Figure 3).

### Sealing Provision

Use the procedure described for the pattern to ensure that the 'CAL jumper' has been removed; the instrument may then be sealed by means of destructible labels as follows:

- (a) by placing a label over the joins in the housing on each side of the instrument for instruments operated by mains power supply; or
- (b) by placing a label over at least one of the screws which hold the battery holder within the instrument housing (Figure 4). Alternatively, a screw and lead & wire seal may be used.

## TEST PROCEDURE

Instruments should be tested in conjunction with any tests specified in the approval documentation for the instrument to which the pattern is connected, as appropriate, and in accordance with any relevant tests specified in the Uniform Test Procedures.

### Maximum Permissible Errors at Verification/Certification

For single range instruments, the maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads,  $m$ , expressed in verification scale intervals,  $e$ , are:

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

FIGURE S431 – 1



Ohaus Model CD-11 Digital Indicator

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FIGURE S431 – 2



Sealing screw and fixing  
for wire and lead seal

Sealing of Model CD-11 Indicator



FIGURE S431 – 3



Model CW-11 Indicator

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FIGURE S431 – 4



At least one sealing  
screw to be sealed

Sealing of Model CW-11 Indicator