Australian Government

National Measurement Institute

12 Lyonpark Road, North Ryde NSW 2113

Cancellation

Certificate of Approval

No 6/14G/6

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

Ishida Model FDP-3000S Automatic Catchweighing Instrument

submitted by Heat & Control Pty Ltd
407 Creek Road
Mt Gravatt QLD 4122

has been cancelled in respect of new instruments as from 1 May 2006.

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

6/14G/6
31 October 2000

National Standards Commission

12 Lyonpark Road, North Ryde NSW

Certificate of Approval

No 6/14G/6

Issued under Regulation 63
of the
National Measurement Regulations 1999

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

Ishida Model FDP-3000S Automatic Catchweighing Instrument

submitted by Heat & Control Pty Ltd
407 Creek Road
Mt Gravatt QLD 4122.

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.

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CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 September 2005, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 6/14G/6 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 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 106.

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

DESCRIPTIVE ADVICE

Pattern: approved 8 August 2000

- An Ishida model FDP-3000S Class Y(a) automatic catchweighing instrument of 4 kg maximum capacity.

Variant: approved 8 August 2000

1. Models FDP-3000SB and FDP-3000SE.

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

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/14G/6 dated 31 October 2000
Technical Schedule No 6/14G/6 dated 31 October 2000 (incl. Test Procedure)
Figures 1 and 2 dated 31 October 2000

Signed by a person authorised under Regulation 63 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

TECHNICAL SCHEDULE No 6/14G/6

Pattern: Ishida Model FDP-3000S Automatic Catchweighing Instrument.

Submittor: Heat & Control Pty Ltd
407 Creek Road
Mt Gravatt QLD 4122.

1. Description of Pattern

An Ishida model FDP-3000S automatic catchweigher (Figure 1) which is approved for use to weigh objects while in motion.

1.1 Details

The instrument is a single-interval Class Y(a) automatic catchweighing instrument, with a verification scale interval of 0.002 kg and with a maximum capacity of 4 kg. Instruments have a minimum capacity of 0.04 kg.

The instrument operates dynamically (package continuously moving on the weighing receptor). The maximum belt speed of the weighing receptor is 0.96 m/s.

NOTE: A static non-automatic weighing mode is also available in which the conveyors do not operate.

Instruments are approved for use over a temperature range of -5°C to +40°C, and are so marked.

1.1.1 Zero

The initial zero-setting device has a nominal range of approximately 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.

The zero-tracking device automatically corrects zero to within ±0.25e whenever the instrument comes to rest within ±0.5e of zero. (Note: operates in static mode only.)

The instrument has an automatic zero-setting device (with a nominal range of not more than 4% of the maximum capacity of the instrument) that corrects zero to within ±0.5e when the package activates the infeed conveyor sensor and there is no package on the weighing receptor conveyor. (Note: operates in dynamic mode only.)

1.1.2 Tare

A keyboard-entered pre-set subtractive taring device of up to 0.998 kg capacity may be fitted. Pre-set tare values may also be stored in association with price-look-up (PLU) items.

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1.2 Operation

In dynamic mode, an object to be weighed is placed or rolled onto the infeed conveyor and is then pulled along onto the weighing receptor conveyor and weighed in motion. After weighing, the object is pulled onto the outfeed conveyor where a label is then printed and applied to the object.

In the static mode, a package may be placed on the weighing receptor, a label is printed and then applied manually to the package by the operator.

1.3 Weighing System

The Ishida model FDP-3000S weighing system has a belt conveyor-type load receptor having maximum nominal dimensions of 300 x 640 mm.

The pattern (Figure 1) comprises :

(a) a terminal/indicator;

(b) a weighing unit and conveyor system; and

(c) either one or two printing units which comprise a thermal printer, a roll of labels and a compressed air driven unit used to apply the label to the weighed object. The printer unit/s are positioned automatically.

1.4 Terminal/Indicator

The terminal/indicator is fitted with an LCD touch screen display/keyboard and an additional keyboard including ‘qwerty’ and additional keys. The two keyboards are 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 $999.99/kg, price to $999.99, and a price-look-up (PLU) facility.

1.5 Weighing Unit and Conveyor System

The weighing unit contains an Ishida model TLC-30LT load cell of 30 kg maximum capacity.

The conveyor system comprises separate infeed, weighing receptor and outfeed conveyors (Figure 1) and an associated electric motor and drive arrangement for each conveyor. Optical sensors are provided, located along the infeed and outfeed conveyors. The infeed conveyor aligns the objects to be weighed, the belt-type side guides being positioned automatically.

1.6 Verification/Certification Provision

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

1.7 Sealing Provision

Provision is made for the calibration adjustments in the indicator to be sealed by sealing the cover shown in Figure 2 (located in the instrument control unit accessed from the rear of the instrument).

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1.8 Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Ishida Co Ltd, Japan
Importer's mark, or name written in full	Heat & Control Pty Ltd
Model designation	.....
Serial number	.....
Year of manufacture	.....
Accuracy class	Y(a)
Pattern approval mark	NSC No 6/14G/6
Maximum capacity	*Max* ….
Minimum capacity	*Min* ….
Verification scale interval	*e* = ….
Maximum subtractive tare	*T* = - ...
Maximum conveyor speed	…. m/s
Special temperature limits	-5°C to +40°C

2. Description of Variant 1

Certain other models and configurations as listed below:

- Model FDP-3000SB which has the plate-type side guides being positioned either automatically or manually. The printer unit/s are also positioned either automatically or manually; and
- Model FDP-3000SE which has the plate-type side guides being positioned automatically. The printer unit/s are also positioned automatically.

TEST PROCEDURE

Non-automatic Operation

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

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

- For single interval instruments, prepare two test objects, one close to minimum capacity and one close to maximum capacity. With the conveyors running, apply each mass separately at least ten times. The masses of the test objects shall be measured on a verified, non-automatic weighing instrument with an uncertainty equal to or better than 0.5e.
- The tests shall be conducted at the maximum conveyor speed marked on the instrument.
- Vary the position of the test objects across the receptor.

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

TEST 1 – Maximum permissible error = ±1.5e

Test load = ne

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

TEST 2 – Maximum permissible error = ±2e

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 = ±2.5e

Test load = ne

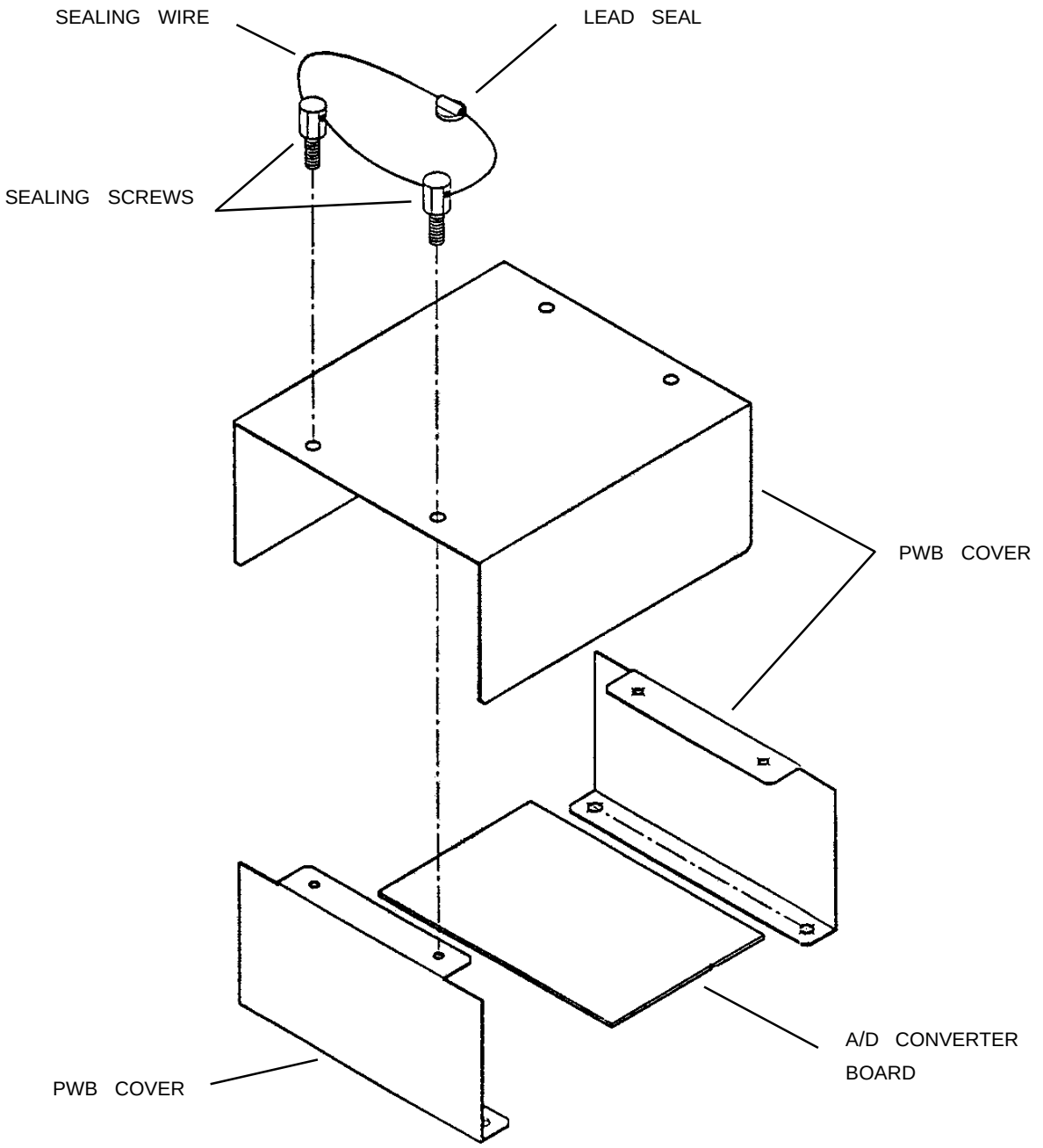
Readings:	A: (n - 3)e	reject
	B: (n + 3)e	reject
	A < Readings < B	accept

FIGURE 6/14G/6 - 1

Ishida Model FDP-3000S Automatic Catchweighing Instrument

6/14G/6
31 October 2000

FIGURE 6/14G/6 - 2



Showing Sealing Method