Australian Government

**Department of Industry,
Science and Resources**

**National
Measurement
Institute**

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/4D/401

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.

Tscale model P10b Weighing Instrument

submitted by   GaP Solutions Pty Ltd
26 Woodlands Terrace
Edwardstown   SA   5039

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 October 2015.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 4 approved – certificate issued	17/02/25

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4D/401' 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 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 Certificate of Approval No S1/0B.

Special

Certain aspects of this instrument (in particular transaction record printing formats) are able to be configured by the user. Whilst NMI believes that acceptable formats can be achieved for typical basic sales modes, it is also possible for the instrument to be configured to produce unacceptable formats, and use of some formats may be inappropriate for different sales modes. It is the responsibility of the user to ensure that acceptable and appropriate formats are used in any particular situation.

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

Darryl Hines
Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No 6/4D/401

1.   Description of Pattern   approved on 17/02/25

Tscale model P10b class III multi-interval self-indicating price-computing non-automatic weighing instrument (Figure 1) with a verification scale interval e_1 of 0.002 kg up to 6 kg and with a verification scale interval e_2 of 0.005 kg from 6 kg to the maximum capacity of 15 kg, and with a minimum capacity of 0.04 kg.

Instruments are fitted with a touchscreen operator display/keyboard attached to the instrument housing and a colour customer display attached to the pole of the instrument housing. The operator touchscreen consists of displays for presentation of tare, weight, unit price and price information, 'net' indicators and functions relating to product look up (PLU) items.

Instruments have unit price up to $9999.99/kg and price up to $9999.99.

Instruments are fitted with an integral printer for printing of labels or transaction receipts (#).

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

The instrument operates from mains AC power (110 - 240 V AC, 50/60 Hz).

(#)   Refer to the Special Conditions of Approval in the certificate.

1.1   Zero

A zero-tracking device may be fitted.

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.

1.2   Tare

A semi-automatic subtractive tare device of up to the maximum tare capacity may be fitted.

Pre-set tare values may be associated with product look up (PLU) items. The maximum pre-set tare value is equal to the limit of the first partial weighing range (multi-interval instruments). A separate display of tare values is provided.

1.3   Levelling

Instruments are provided with adjustable feet and a level indicator.

The instrument is to be used in a level condition as indicated by the level indicator.

1.4   Verification Provision

Provision is made for the application of a verification mark.

1.5   Interfaces

Instruments 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 General Supplementary Certificate of Approval No S1/0B (in particular in regard to the data and its format).

Instruments may be fitted with telephone, Ethernet, USB, RS232 and VGA output connectors.

1.6 Networking

A number of pattern and variants may be connected in a network to share common PLU data, and to accumulate and retrieve management information.

In addition, the network may be interfaced with a computer for the collection of management data, or the downloading of PLU data.

Note: The weighing and price computing functions of each weighing instrument in the network are independent, and the removal, repair or replacement of a particular weighing instrument does not necessitate re-verification of any other weighing instrument in the network.

1.7 Descriptive Markings and Notices

Instruments are marked with the following data:

Manufacturer's mark, or name written in full	Tscale Electronics MFG (KUNSHAN) Co. Ltd.
Name or mark of manufacturer's agent	GaP Solutions Pty Ltd
Indication of accuracy class	Ⓜ
Pattern approval number for the instrument	NMI 6/4D/401
Maximum capacity	*Max* ...../..... g or kg #1
Minimum capacity	*Min* .... g or kg #1
Verification scale interval	*e* = .../...... g or kg #1
Serial number of the instrument	………..

#1   These markings are shown in the electronic markings field next to the display of Total Price.

1.8 Sealing Provision

The configuration parameters and calibration adjustments are protected either by Sealing Method A (Figure 3a) or Sealing Method B (Figure 3b).

Sealing method A: The sealing of the instrument includes adding a destructible adhesive label seal over the calibration button which is at the bottom of the instrument.

Sealing method B: The sealing of the instrument includes applying a lead wire type seal through the screw of metal seal cover of the calibration button and the screw of fixed housing at the bottom of the instrument.

1.9 Software

The operating system of the instrument is based on MS Windows version 10 or later. The metrological relevant software are as follows.

- Tscale A/D-board's software version 0.2.05.

- GaP Solution Scale API software: v1.0.0.0, namely 'GaP Assembly version v1.0.0.0'.

- GaP Solutions Ezi-Scale version 2.5.1.8002 software as the application program.

The Tscale A/D-board software provides the metrologically relevant configuration, calibration and parameters relating to instrument weighing measurement. The Tscale software also provides the communication directly with the loadcell and A/D board.

The GaP Solution Scale API software provides the user interfaces and metrologically relevant indication such as weight, zero, tare, and price computing. It also controls and checks the information received from application software/program such as GaP Solution EZI Scale software.

The above metrological relevant software versions can be checked by double tap on the markings at the bottom of the main screen of GaP Solution Scale API software.

The GaP Solutions Ezi-Scale software is the 'application program' which interfaces to the GaP Solution API software to initiate pre-set tare functions and to provide unit price information (including providing applicable pre-set tare and unit price values). The 'application program' controls the instrument touch screen, and printing of labels or transaction receipts.

The GaP Solutions EZI-Scale software version can be checked by the following steps.

- Press the 'Menu' button.
- The software version number is displayed on the screen.

2.   Description of Variant 1   approved on 17/02/25

Tscale model P10b multi-interval instruments in certain other capacities as listed in Table 1 and as shown in Figure 1 (the pattern is shown in **bold**):

Table 1

Maximum Capacity (Max_1 / Max_2)	Minimum Capacity (Min)	Verification Scale Interval (e_1 / e_2)
3/6 kg	0.02 kg	0.001/0.002 kg
6/15 kg	**0.04 kg**	**0.002/0.005 kg**

3.   Description of Variant 2   approved on 17/02/25

The models in the Table 2 are similar to the pattern and variant 1 but with different enclosures and displays as shown in Figure 2.

Table 2

Model	Enclosure Type	Number of Displays	Operating System
Tscale P10e (Figure 2a)	(aka H-Type) Pole Mounted 10" Operator Display. Pole Mounted 10" Customer Display	2	MS Windows 10 or later
Tscale P10a (Figure 2b)	(aka F-Type) Bench Mounted 10" Operator Display. Bench Mounted 10" Customer Display	2	MS Windows 10 or later

4.   Description of Variant 3   approved on 17/02/25

The Tscale model P10s (aka I-Type) instruments which are similar to the pattern and variant 1, but with only a pole mounted 10" operator display (Figure 2c).

Note: Tscale model P10s shall have a 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording) notice next to the display screen.

5.   Description of Variant 4   approved on 17/02/25

The Tscale model P10SS instruments which are similar to the pattern and variant 1, but with only a pole mounted 18" customer display (Figure 2d). The instruments are used for customer self-service only. The instruments used in a self-service arrangement may provide various methods of product look up, as well as providing tare, weight, unit price and price.

Note 1: It is not required that access to the zero setting facility be available to customers in a self-service arrangement. However, access to the zero setting facility shall be available to staff of the particular store, and it is expected that measures will be in place to ensure that the zero condition of the instrument is checked regularly.

Note 2: When used in a self-service arrangement, all keys on the touch screen keyboard, other than the REZERO key and PLU key(s), may be disabled or removed. The TARE key is not functional with this arrangement.

TEST PROCEDURE No 6/4D/401

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

The instrument shall not be adjusted to anything other than as close as practical to zero error, even when these values are within the maximum permissible errors.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

Tests

For multi-interval instruments with verification scale intervals of e_1, e_2 …, apply e_1 for zero adjustment, and maximum permissible errors apply e_1, e_2 …, as applicable for the load.

FIGURE 6/4D/401 – 1

Tscale P10b (Pattern)

FIGURE 6/4D/401 – 2

(a) Tscale P10e
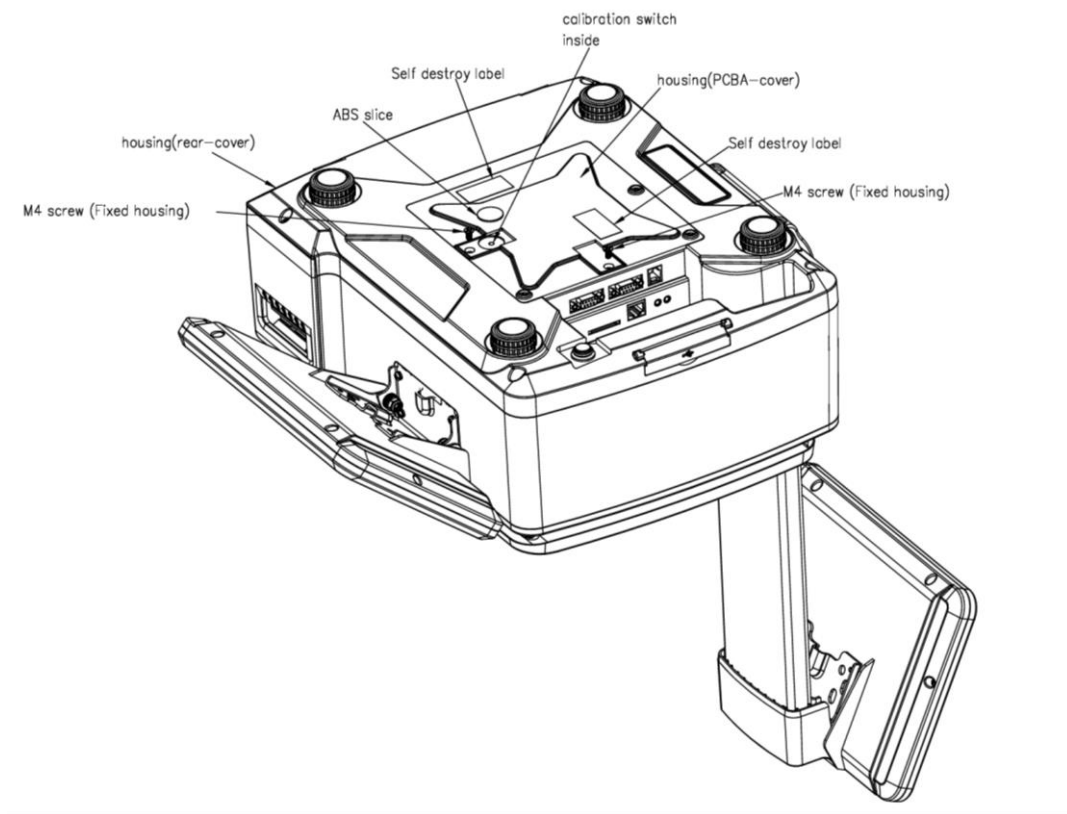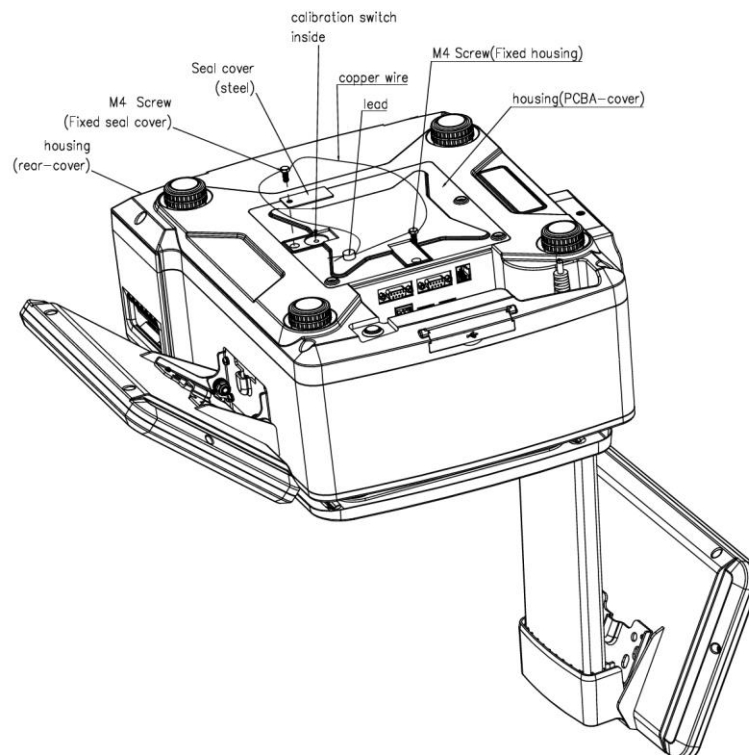
(b) Tscale P10a

(c) Tscale P10s

(d) Tscale P18SS

FIGURE 6/4D/401 – 3

(a) Sealing Method A

(b) Sealing Method B

Typical Seal Methods

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