



Australian Government
**National Measurement
Institute**

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/4D/350

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.

@Weigh Model QSP-15 Weighing Instrument

submitted by @Weigh Pty Ltd
Unit 31, 102 Keys Road
Moorabbin VIC 3185

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 **1/11/20**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 5 approved – certificate issued	16/10/09
1	Pattern & variants 1 to 5 reviewed & updated – variant 6 approved – certificate issued	18/03/15

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4D/350' 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*.



Dr A Rawlinson

TECHNICAL SCHEDULE No 6/4D/350

1. Description of Pattern

approved on 16/10/09

An @Weigh model QSP-15 class III non-automatic self-indicating multi-interval 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 15 kg.

Instruments are fitted with the operator display integrated within the body of the instrument and a customer display mounted on a column. The displays are liquid crystal display (LCD) type.

The platter size of the instrument is 300 mm x 230 mm.

Instruments have unit price to \$9999.99/kg, price to \$9999.99, and a product look up (PLU) facility.

Power for the QSP-15 instrument may be supplied by either:

- an AC/DC mains adaptor; or
- an internal rechargeable 6 V battery.

Note: The AC/DC mains adaptor supplied was a model LK-D090080 (9 V DC, 800 mA) – the submitter should be consulted regarding the acceptability of alternative power supply units).

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

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 maximum capacity may be fitted.

1.3 Levelling

The instrument is provided with adjustable feet and adjacent to the level indicator is a notice stating 'Instrument must be level when in use'.

1.4 Display Check

A display check is initiated whenever power is applied.

1.5 Label Printing

A printer may be attached to the instrument for label printing.

1.6 Verification Provision

Provision is made for the application of a verification mark.

1.7 Sealing Provision

The instrument may be sealed by sealing access to the calibration jumper, as shown in Figure 2a. Alternatively, one or more destructible adhesive labels may be used (Figure 2b).

1.8 Descriptive Markings and Notices

(a) Instruments carry the following markings:

Manufacturer's mark, or name written in full	@ Weigh Pty Ltd	
Indication of accuracy class	Ⓜ	
Pattern approval mark for the instrument	NMI 6/4D/350	
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*.

(b) In addition, instruments purporting to comply with variant 5 (QHW series) carry a notice stating NOT FOR TRADING DIRECT TO THE PUBLIC or similar wording.

2. Description of Variant 1 approved on 16/10/09

Certain models of the QSP series of multi-interval instruments of certain other capacities as listed in Table 1 below (the pattern, QSP-15, is shown in **bold** type). The numeral suffix in the model number represents the maximum capacity in kilograms.

TABLE 1

Maximum Capacity (<i>Max</i> ₁ / <i>Max</i>)	Minimum Capacity (<i>Min</i>)	Verification Scale Interval (<i>e</i> ₁ , <i>e</i> ₂)	Maximum Subtractive Tare Capacity (<i>T</i> = - ...)
3/6 kg	0.02 kg	0.001/0.002 kg	6 kg
6/15 kg	0.04 kg	0.002/0.005 kg	15 kg
15/30 kg	0.1 kg	0.005/0.01 kg	30 kg

Approved Capacities of Multi-interval Instruments

3. Description of Variant 2 approved on 16/10/09

Certain models of the QTP series which are similar to the pattern except that the customer display is integrated within the body of the instrument.

The approved models of the QTP series of multi-interval instruments are in the same capacities as the QSP series as listed in Table 1. The numeral suffix in the model number represents the maximum capacity in kilograms.

4. Description of Variant 3 **approved on 16/10/09**

Any model of the QSP and QTP series as described for the pattern and variants 1 and 2 but as single interval instruments in capacities as listed in Table 2 below:

TABLE 2

Maximum Capacity (Max)	Minimum Capacity (Min)	Verification Scale Interval (e)	Maximum Subtractive Tare Capacity (T = - ...)
3 kg	0.02 kg	0.001 kg	3 kg
6 kg	0.04 kg	0.002 kg	6 kg
15 kg	0.1 kg	0.005 kg	15 kg
30 kg	0.2 kg	0.01 kg	30 kg

Approved Capacities of Single Interval Instruments

5. Description of Variant 4 **approved on 16/10/09**

Certain models of the QSP-W and QTP-W series which are similar to the pattern and variants 1 and 2 (QSP and QTP series) but without the price-computing and label printing functions, and displaying mass only. Instruments are approved as either single or multi-interval instruments, and may be in any of the capacities listed in Tables 1 and 2.

6. Description of Variant 5 **approved on 16/10/09**

Certain models of the QHW series (Figure 3) which are similar to the QTP-W series (variant 3) but are single interval instruments and are without the customer display. They are not approved for trading direct with the public, and must be so marked.

The instrument also has provision for additional functions such as check weighing, percentage weighing, counting, and accumulation. 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.

The approved models of the QHW series of single interval instruments are in capacities as listed in Table 3 below:

TABLE 3

Model Number	Maximum Capacity (Max)	Minimum Capacity (Min)	Verification Scale Interval (e)	Maximum Subtractive Tare Capacity (T = - ...)
QHW-3	3 kg	0.02 kg	0.001 kg	3 kg
QHW-6	6 kg	0.04 kg	0.002 kg	6 kg
QHW-15	15 kg	0.1 kg	0.005 kg	15 kg
QHW-30	30 kg	0.2 kg	0.01 kg	30 kg

QHW Series – Approved Capacities of Single Interval Instruments

7. Description of Variant 6

approved on 18/03/15

Certain models of the QHW series (Figure 3) which are similar to variant 5 but are multi-interval instruments and may be in any of the capacities listed in Table 1.

TEST PROCEDURE

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 the *National Trade Measurement Regulations 2009*.

Tests

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

FIGURE 6/4D/350 – 1



@Weigh Model QSP-15 Weighing Instrument

FIGURE 6/4D/350 – 2



Showing Typical Sealing Methods

FIGURE 6/4D/350 – 3



Typical QHW Series Instrument

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