Australian Government
Department of Industry, Innovation and Science

National Measurement Institute

Certificate of Approval

NMI 6/4C/307

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.

Mettler Toledo Model Ariva S Weighing Instrument

submitted by Mettler-Toledo Limited
Unit 3, 220 Turner Street
Port Melbourne VIC 3207.

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 becomes subject to review on 1/12/22, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 2 approved – certificate issued	8/11/17

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number ‘NMI 6/4C/307’ 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 Certificates 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*.

Darryl Hines

TECHNICAL SCHEDULE No 6/4C/307

1. Description of Pattern approved on 8/11/17

A Mettler Toledo model Ariva S 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 a verification scale interval (e_2) of 0.005 kg from 6 kg up to the maximum capacity of 15 kg.

Instruments may be fitted with one or two displays, which are either located remotely or attached to the instrument, either with or without a column (Figure 1).

Instruments are marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording) unless two displays are present or unless the single display is located such that all primary indications are clearly and simultaneously displayed to both the vendor and the customer.

Instruments use a Mettler Toledo SLP330DE digital load cell of 30 kg maximum capacity with a nominal platform size of 315 × 280 mm.

The instrument operates from an AC/DC mains adaptor PHIHONG Switching Power Supply model PSAC12R-120 AC/DC mains adaptor (12 V DC, 1 A) – the submittor 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 auxiliary and/or peripheral devices (see clause 1.6 below).

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.

The instrument has an automatic zero-setting device with a nominal range of not more than -2% 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 Display Check

A display check is initiated whenever power is applied.

1.4 Levelling

Instruments are provided with adjustable feet and a level indicator. The level indicator (bubble) is located on basework underneath the weighing receptor. A notice indicating the location of the level indicator (e.g. "Level bubble provided under platform", or similar) shall be provided in a location clearly visible to the operator.

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

1.5 Verification Provision

Provision is made for the application of a verification mark.

1.6 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 Supplementary Certificate No S1/0B (in particular in regard to the data and its format).

Instruments may be fitted with one RS-232 serial data interface.

1.7 Sealing Provision

Provision is made for access to the calibration switch within the instrument to be sealed using destructible labels placed over the securing screw and span switch access hole underneath the load receptor (Figure 4).

1.8 Software

The software is designated 1.3xx (where xx refers to the identification of non-legally relevant software).

The software version and number can be seen in the switch-on display sequence (when the power is first applied to the instrument).

1.9 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Mettler-Toledo	
Indication of accuracy class	(III)	
Pattern approval mark for the instrument	NMI 6/4C/307	
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 near the display of the result.

2. Description of Variant 1 approved on 8/11/17

The Mettler Toledo model Ariva S-Mini which is similar to the pattern but having a smaller 200 mm × 160 mm weighing receptor (Figure 2).

3. Description of Variant 2 approved on 8/11/17

The Mettler Toledo model Ariva-B which is similar to the pattern but having a basework supported by a single Mettler Toledo CKOR digital load cell of 30 kg maximum capacity. The basework incorporates separate Magellan 8400 scanning equipment with a nominal platform size of 340 × 280 mm.

Instruments may be fitted with an extended (vertical) weighing platform attachment, which is part of the 'live' weight receptor, as shown in Figure 3a & 3b.

3.1 Levelling

The instrument is intended to be installed in a fixed position (e.g. a supermarket check-out) and hence is not fitted with adjustable feet.

3.2 Power Supply

The instrument operates from an AC/DC mains adaptor PHIHONG model PSAA18U-120 AC/DC mains adaptor (12 V DC, 1.5 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

TEST PROCEDURE No 6/4C/307

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

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.

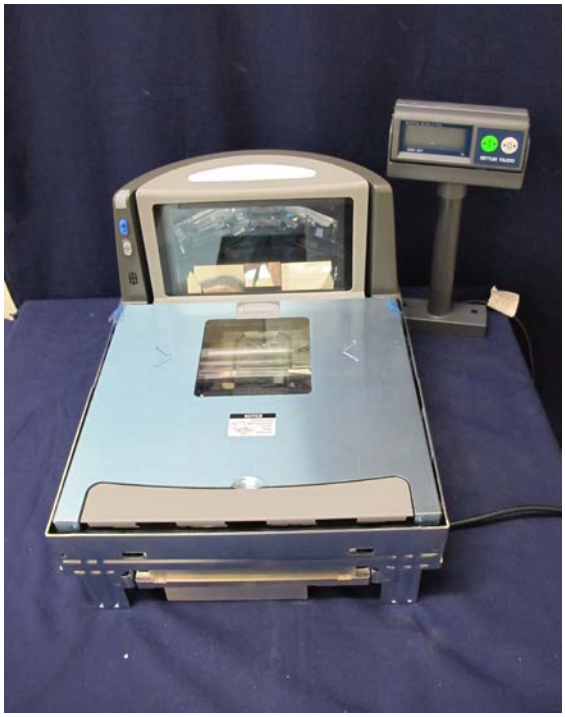
FIGURE 6/4C/307 – 1

Mettler Toledo Model Ariva S Weighing Instrument (Pattern)

FIGURE 6/4C/307 – 2

Mettler Toledo Model Ariva S-Mini Weighing Instrument (Variant 1)

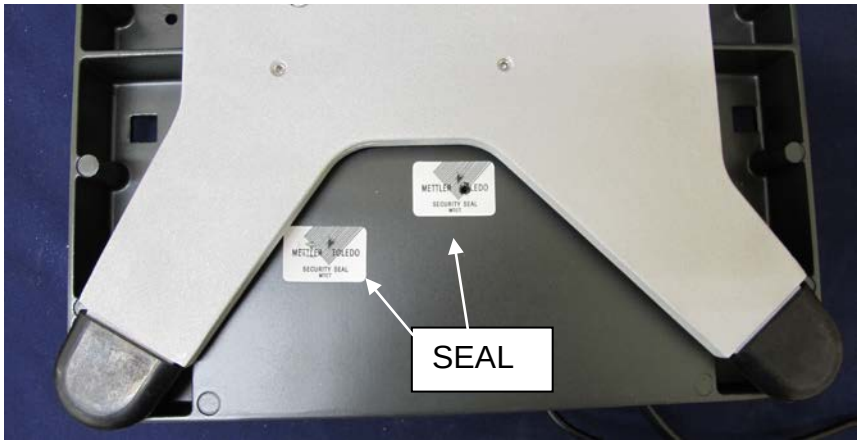
FIGURE 6/4C/307 – 3



(a) Mettler Toledo Model Ariva-B Weighing Instrument (Variant 2)

(b) Mettler Toledo Model Ariva-B Weighing Instrument With Load Receptor Plate Removed (Variant 2)

FIGURE 6/4C/307 – 4



Seal of Model Ariva S and S-Mini Weighing Instruments

Seal of Model Ariva-B Weighing Instrument

Showing Typical Sealing

~ End of Document ~