Australian Government
Department of Industry, Innovation and Science

National Measurement Institute

Interim
Certificate of Approval
NMI 6/4C/299

VALID FOR VERIFICATION PURPOSES UNTIL 24 MAY 2016

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 BC-30 Weighing Instrument

submitted by Mettler Toledo Limited
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.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – interim certificate issued	24/11/15

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4C/299' 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.

This approval shall NOT be used in conjunction with General Certificate No 6B/0.

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.

In the event of unsatisfactory performance or features being identified prior to the issuing of a final certificate, the submittor shall implement such modifications as required by NMI. In the event that such modifications (if any are required by NMI) are not made to the satisfaction of NMI, this approval may be withdrawn.

1. Description of Pattern approved on 24/11/15

A Mettler Toledo model BC-30 class (III) non-automatic weighing instrument, having a maximum capacity of 30 kg with a verification scale interval (e) of 0.01 kg. The instrument platter may be metal (Figure 1a) or plastic.

The minimum capacity of the instrument is 0.2 kg, unless the instrument is marked 'FOR POSTAL USE ONLY' in which case the minimum capacity is 0.05 kg.

Instruments are fitted with a single display or dual displays may be provided. 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 may be fitted with output sockets (output interfacing capability) for the connection of peripheral and/or auxiliary devices.

1.1 Basework

The basework of the Mettler Toledo model BC-30 has the load receptor directly supported by a single load cell. The load receptor has a nominal dimension of 31.2 mm × 35.3 mm.

1.2 Load cell

A Mettler Toledo model 0785 load cell of 50 kg maximum capacity is used.

1.3 Indicator

A single or dual Mettler Toledo model 0271 display is used.

The indicator may be mounted on a column or attached to the platform or it may also be located remotely.

1.4 Zero

A zero-tracking device may be fitted.

The initial zero-setting device of the pattern 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.

1.5 Tare

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

1.6 Power Supply

Power for the Mettler Toledo Model BC-30 instrument is supplied by a 5 V DC power supply (e.g. a USB power supply, or external 5 V DC power adaptor).

1.7 Additional Features

The indicator also has certain additional functions (e.g. to facilitate postal / freight applications). The additional functions are not approved for trade use.

1.8 Interfaces

The indicator 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 R 76 (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 NMI General Supplementary Certificate No S1/0B (in particular in regard to the data and its format).

Indications 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, are not for trade use.

Instruments may be fitted with data interfaces such as USB, RS232, Ethernet or Bluetooth.

1.9 Levelling

The instrument is provided with adjustable feet, and a level indicator which is visible to the user.

1.10 Software

The software identification is 30099478 Version 0.00.00002.

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

1.11 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 number for the instrument	NMI 6/4C/299
Maximum capacity	*Max* ..... g or kg #1
Minimum capacity	*Min* ..... g or kg #1
Verification scale interval	*e* = ... g or kg #1
Maximum subtractive tare	*T* = - ..... 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*.

In addition, instruments may be required to carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording (see 1. Description of Pattern). A marking of FOR POSTAL USE ONLY may also be necessary, dependent on the minimum capacity value (see 1. Description of Pattern).

1.12 Verification Provision

Provision is made for the application of a verification mark.

1.13 Sealing Provision

Provision is made for access to the calibration switch within the instrument to be sealed using destructible labels placed over the access hole to this switch.

It can be checked that the instrument is in a mode in which the calibration switch protects calibration settings by pressing the up arrow on the keypad for 5 seconds. On the 'Home' screen which appears, use the right arrow to scroll to 'Setup' and press enter. On the SETUP screen which appears, use the right arrow to scroll to 'Scale' and press enter. With 'Scale' selected, press enter – a message requesting that the 'Cal button' be pressed should appear.

Figure 1

Mettler Toledo Model BC-30

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*.

For multi-interval and multiple range 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.

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

C Davies

C Davies

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