

Supplementary Certificate of Approval No S283

Issued under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations

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

Mettler Toledo Model 8510 Digital Indicator

submitted by Mettler Toledo Pty Ltd 525 Graham 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.

CONDITIONS OF APPROVAL

This approval became subject to review on 1 April 1997.

This approval expires in respect of new instruments on 1 December 1998.

Instruments purporting to comply with this approval shall be marked NSC No S283 and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S283 in addition to the approval number of the instrument.

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.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0/A.

DESCRIPTIVE ADVICE

Pattern: approved 19 March 1992

• A Mettler Toledo model 8510 digital indicator.

Technical Schedule No S283 describes the pattern.

Variant: approved 16 June 1993

1. With an analog input circuit board.

Technical Schedule No S283 Variation No 1 describes variant 1.

Variant: approved 3 August 1998

2. A model 8510PM-BS indicator.

Technical Schedule No S283 Variation No 2 describes variant 2.

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FILING ADVICE

Supplementary Certificate of Approval No S283 dated 20 September 1993 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

Supplementary Certificate of Approval No S283 dated 22 October 1998 Technical Schedule No S283 dated 5 May 1992 (incl. Test Procedure) Technical Schedule No S283 Variation No 1 dated 20 September 1993 (incl. Table 1) Technical Schedule No S283 Variation No 2 dated 22 October 1998 Notification of Change No 1 dated 7 December 1993 Figures 1 and 2 dated 5 May 1992 Figure 3 dated 22 October 1998

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

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TECHNICAL SCHEDULE No S283

Pattern: Toledo Model 8510 Digital Indicator

Submittor: Toledo Scale (Australia) Ltd 525 Graham Street Port Melbourne VIC 3027.

1. Description of Pattern

A Toledo model 8510 digital mass indicator (Figure 1). Instruments may be in alternative housings and may also fitted with input/output sockets for the connection of auxiliary and/or peripheral devices.

The pattern shall be used with Commission-approved Toledo 'DigiTOL' load cells only. The maximum number of verification scale intervals (VSI) applicable is determined by the number of VSI given in the approval documentation for the load cell used.

1.1 Zero

Zero is automatically set to within $\pm 0.25e$ whenever the instrument comes to rest within $\pm 0.5e$ of zero. If the instrument comes to rest outside that range but within the zero setting range, zero may be set by pressing the zero button.

The initial zero-setting device has a nominal range of $\pm 2\%$.

1.2 Display Check

A display check is initiated whenever power is applied.

1.3 Tare

The instrument may be fitted with a semi-automatic subtractive taring device of up to maximum capacity.

1.4 Set Point

Instruments may be fitted with up to 2 set point facilities and/or with an OVER/ACCEPT/UNDER display (Figure 2).

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1.5 Optional Mass Unit

The instrument may be configured to display in 'lb'. The instrument shall be marked 'lb, not for trade use' or 'lb, for export use only'. The scale interval, verification scale interval, maximum capacity and minimum capacity when used with this unit shall be marked in the vicinity of the reading face. The markings of the primary units shall be given in 'kg' or 'g'.

1.6 Verification/Certification Provision

Provision is made for a verification/certification mark to be applied.

1.7 Markings

Instruments are marked with the following data, together in one location:

Manufacturer's name or mark	
Serial number	
Accuracy class	
Maximum capacity	Max*
Minimum capacity	Min*
Verification scale interval	e = d =*
Maximum subtractive tare	Τ =
NSC approval numbers - indica	tor NSC No S283
- other	components #

* Repeated in the vicinity of each reading face.

May be located separately from the other markings.

In addition, if the instrument is weighing in 'lb', the mass display shall be denominated 'lb' and the instrument shall be marked 'not for trade use' or 'for export use only'. Refer also to cl. **1.5 Optional Mass Unit**.

TEST PROCEDURE

Instruments shall be tested in conjunction with any tests specified in the approval documentation for the instrument to which the pattern is connected, as appropriate, and in accordance with any relevant tests specified in the Inspector's Handbook.

The maximum permissible errors applicable are those applicable to the system to which the instrument approved herein is fitted, as stated in the approval documentation for the system.



TECHNICAL SCHEDULE No S283

VARIATION No 1

Pattern: Mettler Toledo Model 8510 Digital Indicator.

Submittor: Mettler Toledo Limited 525 Graham Street Port Melbourne VIC 3027.

1. Description of Variant 1

With an analog input circuit board, in which case the instrument is approved for use with up to 5000 verification scale intervals (refer Table 1 below).

On instruments fitted with a taring device, the display may be marked TARE (as shown in Figures 1 and 2) or NET.

TABLE 1

Type:Mettler Toledo 8510Maximum number of verification
scale intervals5000Minimum sensitivity1.8 x 10⁻³ mV/scale intervalExcitation voltage12.5 V DCMinimum load impedance87.5 ohmsMaximum excitation current137 mA

TECHNICAL SCHEDULE No S283

VARIATION No 2

Pattern: Mettler Toledo Model 8510 Digital Indicator.

Submittor: Mettler Toledo Pty Ltd 525 Graham Street Port Melbourne VIC 3207.

1. Description of Variant 2

A Mettler Toledo model 8510PM-BS digital indicator (Figure 3) with accumulator function for use with airline baggage-weighing instruments.

24/12/92

National Standards Commission



NOTIFICATION OF CHANGE

VARIOUS CERTIFICATES OF APPROVAL

The following changes are made to the approval documentation for various approvals

submitted by Toledo Scale (Australia) Ltd 525 Graham Street Port Melbourne VIC 3207.

In the Certificates and Technical Schedules listed overleaf, the following changes should be made: (Note: Only current approvals are listed.)

1. The submittor should be changed to read;

Mettler Toledo Limited

- (the address remains unchanged)
- 2. All references to 'Toledo' instruments or components should be amended to read 'Toledo (or Mettler or Mettler Toledo)'.
- NOTE: Any 'Toledo' instrument or component described in the approval documentation may now also be known as 'Mettler or Mettler Toledo'.

24/12/92

Notification of Change

APPROVAL NUMBER PATTERN 6/4C/65 8214 Weighing Instrument 8215 Weighing Instrument 6/4C/68 8421 Weighing Instrument 6/4D/242 2191 Weighing Instrument 6/9C/2A 2503 Weighing Instrument 6/9C/24A 2020 Weighing Instrument 6/9C/28 2985 Weighing Instrument 6/9C/24A 44A 2295 Weighing Instrument 6/9C/76 6/9C/87 2375 Weighing Instrument 2155 Weighing Instrument 6/9C/97 9118 Weighing Instrument 6/9C/98 6303 Weighing Instrument 6/9C/206 1938 Weighing Instrument 6/9C/231 6/10B/46A 7560 Weighing Instrument 6/14B/9A 2352 Hopper Weighing Instrument 2299 Overhead Weighing Instrument 6/18/21 S253 8530 Digital Indicator 8520 Digital Indicator S266 8510 Digital Indicator S283 S111A 0721 Load Cell 0723 Load Cell S112A 0752 Load Cell S143 0725 Load Cell S172 0742 Load Cell S211 S252 0760 Load Cell S264 0752 Load Cell RLC 5000 Load Cell S268

> Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

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NOTIFICATION OF CHANGE

SUPPLEMENTARY CERTIFICATE OF APPROVAL No S283

CHANGE No 1

The following changes are made to the approval documentation for the

Mettler Toledo Model 8510 Digital Indicator

submitted by Mettler Toledo Limited 525 Graham Street Port Melbourne VIC 3207.

In Technical Schedule No S283 Variation No 1 dated 20/9/93, Table 1 should be amended so that the value for Maximum Excitation Current is changed to read '143 mA'.

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J. Buch



Toledo Model 8510 Digital Indicator



Model 8510 With Additional Display

FIGURE S283 - 3



Mettler Toledo Model 8510PM-BS Digital Indicator