



Australian Government

Department of Industry,  
Innovation and Science

## National Measurement Institute

# Supplementary Certificate of Approval

## NMI S427

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 (Changzchou) Model SBC-1 Load Cell

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 60, *Metrological Regulation for Load Cells*, dated July 2004.

This approval becomes subject to review on **1/02/21**, and then every 5 years thereafter.

### DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern and variant 1 approved – interim certificate issued	28/01/04
1	Pattern and variant 1 approved – certificate issued	25/05/04
2	Pattern and variant 1 reviewed – notification of change issued	30/07/09
3	Pattern and variant 1 <b>reviewed</b> , amended (Figure 3 added) & updated – certificate issued	9/06/16

## CONDITIONS OF APPROVAL

### General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI S427' and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S427' in addition to the approval number of the instrument, 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.

The values of the performance criteria (maximum number of scale intervals etc.) applicable to an instrument incorporating the pattern approved herein shall be within the limits specified herein and in any approval documentation for the other components.

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

A handwritten signature in black ink, appearing to be 'Dr A Rawlinson', with a horizontal line underneath.

**Dr A Rawlinson**

## TECHNICAL SCHEDULE No S427

### 1. Description of Pattern approved on 28/01/04

A Mettler-Toledo (Changzchou) model SBC-1 load cell of 1000 kg maximum capacity (Figure 1 and Table 1) approved for use with up to 3000 verification intervals.

#### 1.1 Method of Mounting

Mounting is to be in accordance with the manufacturer's instructions and as shown in Figures 2 or 3.

#### 1.2 Markings

Each load cell is marked with the following:

Manufacturer's mark, or name written in full	Mettler-Toledo (Changzchou) Scale & Systems Ltd
Model number	.....
Maximum capacity, $E_{max}$	..... kg
Serial number	.....
Pattern approval mark	NMI S427

#### 1.3 Table of Specifications

Specifications for the pattern are given in Table 1.

### 2. Description of Variant 1 approved on 28/01/04

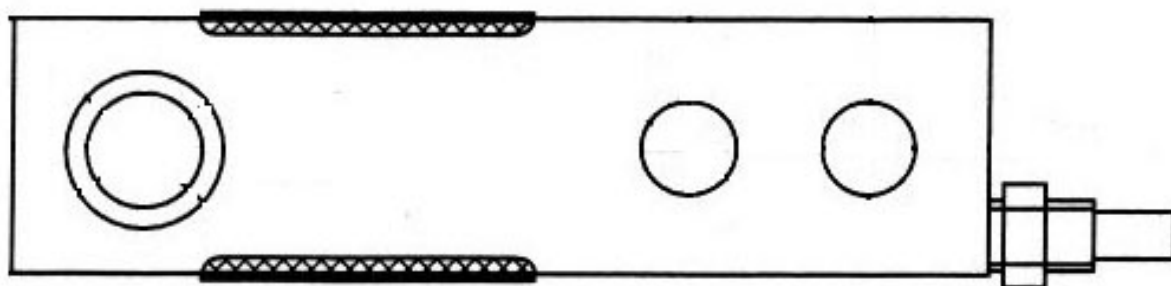
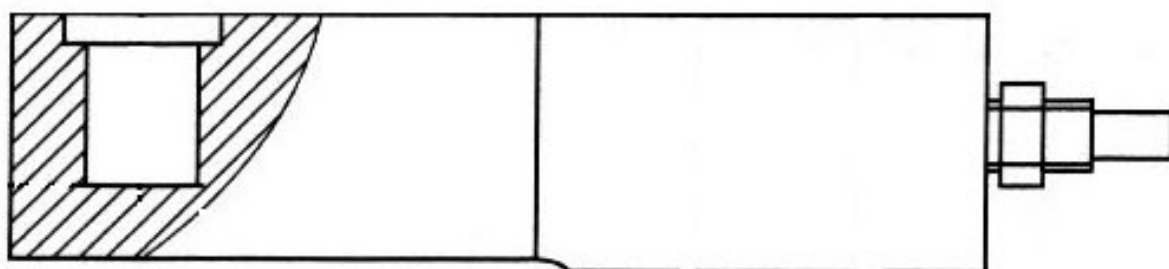
Certain other models of the SBC series as listed in Table 1.

**TABLE 1**

Type: Mettler-Toledo (Changzchou) SBC Series

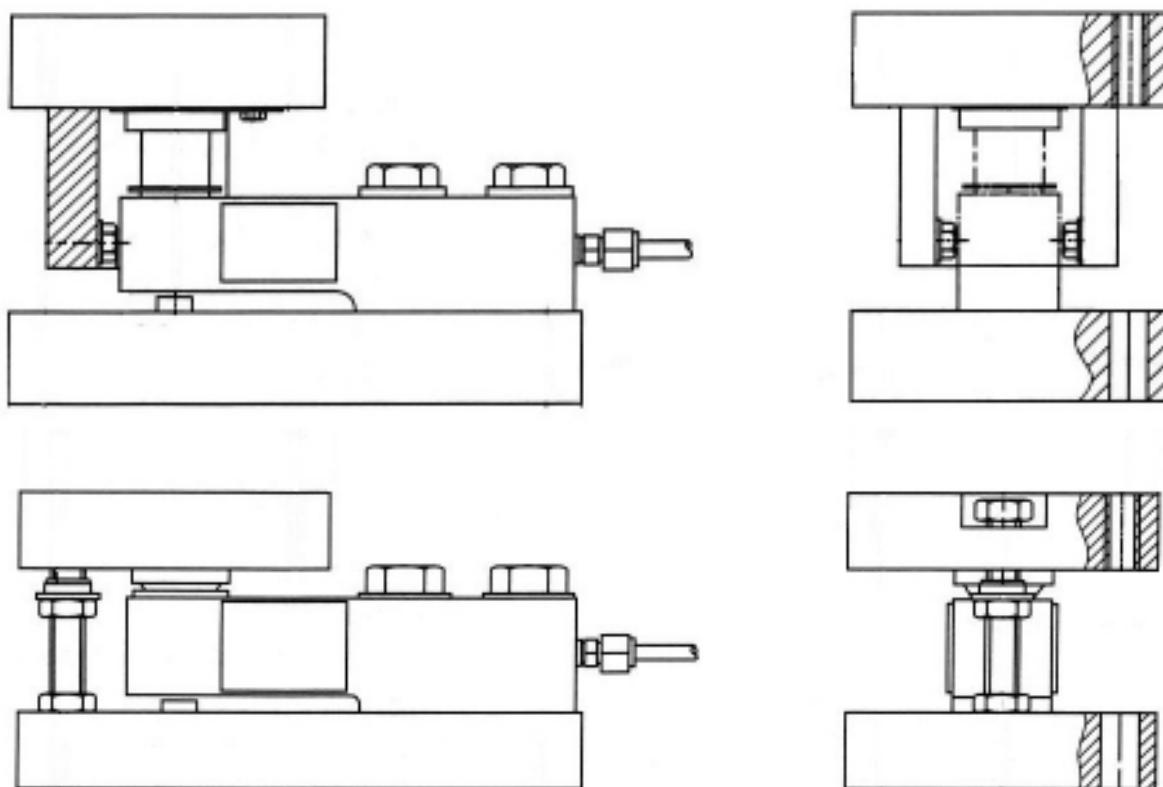
Model number:	SBC-05	SBC-1	SBC-2
Maximum capacity, $E_{max}$ (kg)	500	1000	2000
Accuracy class	C	C	C
Maximum number of verification intervals, nLC	3000	3000	3000
Minimum value of verification interval, $v_{min}$ (kg)	0.08	0.17	0.33
Minimum dead load output return value, DR (kg)	0.05	0.10	0.20
Output rating (nominal), mV/V	2	2	2
Input impedance (nominal), ( $\Omega$ )	350	350	350
Supply voltage (Max, AC or DC), (V)	20	20	20
Cable length ( $\pm 0.1$ m), (m)	3	3	3
Number of leads (plus shield)	4	4	4

FIGURE S427 – 1



Typical Mettler-Toledo (Changzhou) SBC Series Load Cell

FIGURE S427 – 2



Mettler-Toledo (Changzchou) SBC Series Load Cells – Alternative Mounting Methods

FIGURE S427 – 3



Alternative Mounting Method ('MultiMount')

Note: Load cell shown in this photo differs from the SBC series load cells approved in this certificate.