



**Australian Government**  
**National Measurement**  
**Institute**

Bradfield Road, West Lindfield NSW 2070

**Certificate of Approval**  
**No 6/9C/303**

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

Mettler Toledo Model PA300/IND205 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 July 2004.

**CONDITIONS OF APPROVAL**

This approval becomes subject to review on 1 June 2014, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/9C/303' 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 National Measurement Institute 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.

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

#### DESCRIPTIVE ADVICE

**Pattern:** approved 11 May 2009

- A Mettler Toledo model PA300/IND205 single range self-indicating weighing instrument of 300 kg maximum capacity.

**Variant:** approved 11 May 2009

1. Using certain alternative Mettler Toledo load cells.

Technical Schedule No 6/9C/303 describes the pattern and variant 1.

#### FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/9C/303 dated 12 May 2009

Technical Schedule No 6/9C/303 dated 12 May 2009 (incl. Test Procedure)

Figures 1 to 4 dated 12 May 2009

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



## TECHNICAL SCHEDULE No 6/9C/303

**Pattern:** Mettler Toledo Model PA300/IND205 Weighing Instrument

**Submittor:** Mettler Toledo Limited  
220 Turner Street  
Port Melbourne VIC 3207

### 1. Description of Pattern

A Mettler Toledo model PA300/IND205 single range self-indicating non-automatic weighing instrument (Figures 1 and 2) of 300 kg maximum capacity and approved for use with a verification scale interval of 0.2 kg.

The instrument is of a specialised construction, intended for use as an airport baggage weigher.

#### 1.1 Basework

The model PA300 basework has four load cells directly supporting the load receptor (Figures 1 and 2).

The load receptor has a maximum nominal size of 2000 mm × 1500 mm.

A conveyor belt assembly may be mounted on the load receptor, however instruments are approved for static weighing only. Note that the dead load of the PA300 platform plus any conveyor belt assembly shall not exceed 700 kg.

The basework may be fitted with wheels.

**NOTE:** Instruments with wheels are intended to be mounted on fixed rails with the wheels only provided for ease of access for servicing. The instruments are used in a fixed location and the requirements of clause **1.5 Levelling** do not apply.

#### 1.2 Load Cells

Four Mettler-Toledo (Changzhou) model SBH-0.25 load cells of 250 kg maximum capacity are used, and mounted as shown in Figure 2. The load cells are also described in the documentation of approval NSC S428.

#### 1.3 Indicator

The model PA300 instrument uses a Mettler Toledo model IND205-DSVD digital indicator (Figure 3a). This indicator, which is primarily intended for the operator, contains the main system board and is connected to the PA300 basework. It displays the item weight, a total weight, and the number of items (bags) contributing to the total.

An additional display (Mettler Toledo model 8624-C004, Figure 3b) intended for the customer, is attached to the IND205-DSVD indicator and repeats the item weight, total weight and number of items (bags) contributing to the total.

The AC/DC mains adaptor supplied was an AULT model HES18-060256-7 power supply (output 6 V DC, 2.56 A) – the submitter should be consulted regarding the acceptability of alternative power supply units.

The system may have additional management functions and output sockets (output interfacing capability) for the connection of auxiliary and/or peripheral devices (including for example alarms and conveyor controls). Data output from the system may only be used for trade purposes where it complies with General Supplementary Certificate of Approval No S1/0/A.

The IND205-DSVD indicator has provision for semi-automatic zero setting, a totalising facility which allows successive weighings to be summed, the setting of baggage weight limits and associated alarms, and the display of additional totals (e.g. for a flight).

Note: Operation with units other than kilograms is not approved for trade use.

### 1.3.1 Zero

Zero is automatically corrected to within  $\pm 0.25e$  whenever power is applied and whenever the instrument comes to rest within  $0.5e$  of zero.

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.

## 1.4 Display Check

A display check is initiated when the instrument is switched on.


## 1.5 Levelling

Where instruments are liable to be tilted (i.e. they are not installed in a permanently fixed location) they are provided with adjustable feet and a level indicator. Adjacent to the level indicator is a notice advising that the instrument must be level when in use.

Note that as an airport baggage weigher the instrument is normally installed in a permanently fixed location, and hence a level indicator is not required.

## 1.6 Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Mettler Toledo Limited
Name or mark of manufacturer's agent	.....
Indication of accuracy class	
Maximum capacity	Max ..... kg *
Minimum capacity	Min ..... kg *
Verification scale interval	e = ..... kg *
Serial number of the instrument	.....
Pattern approval mark for the instrument	NMI 6/9C/303

\* These markings shall also be shown near the display of the result if they are not already located there.

## 1.7 Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

### **1.8 Sealing Provision**

Provision is made for the calibration adjustments to be sealed, by sealing access to within the housing of the IND205-DSVD indicator. This may be achieved by use of a lead and wire (or similar) type seal through the heads of two sealing screws which secure the back cover to the housing, or alternatively by use of two destructible adhesive labels, one on each side of the back cover of the indicator, between the back cover and the indicator housing.

## **2. Description of Variant 1**

The PA300/IND205 weighing instrument with an alternative basework design using use four Mettler Toledo model SBS-0.25 load cells of 250 kg maximum capacity (Figure 4). The load cells are described in the documentation of approval NMI S521.

This is similar to the basework of the pattern but may be inverted so that swivel feet which are fitted to the load cells now support the conveyor.

The basework may be fitted with wheels.

**NOTE:** Instruments with wheels are intended to be mounted on fixed rails with the wheels only provided for ease of access for servicing. The instruments are used in a fixed location and the requirements of clause **1.5 Levelling** do not apply.

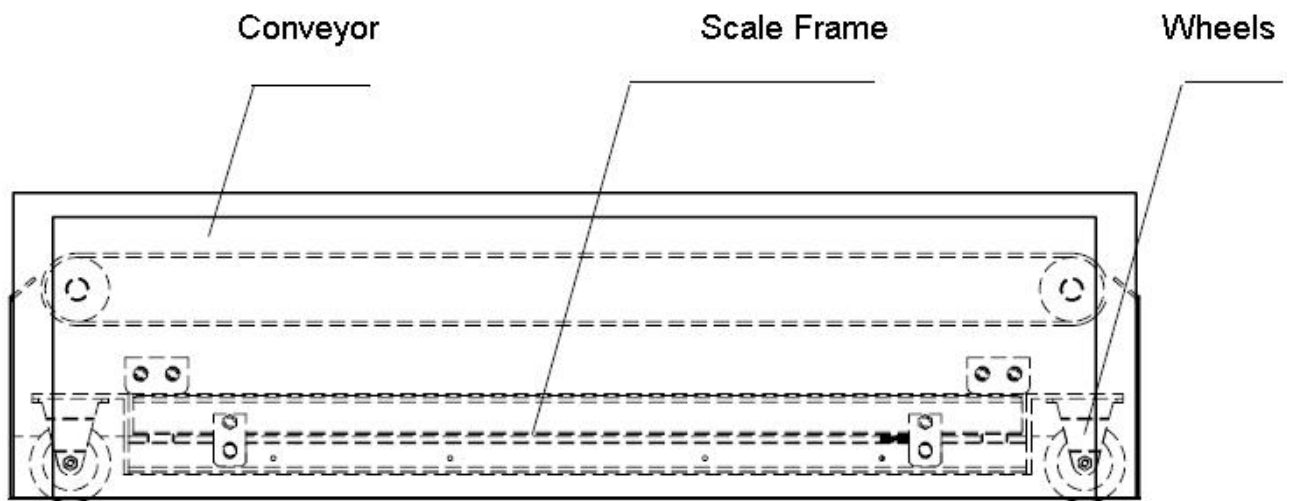
## **TEST PROCEDURE**

Instruments should be tested in accordance with any relevant tests specified in the Uniform Test Procedures.

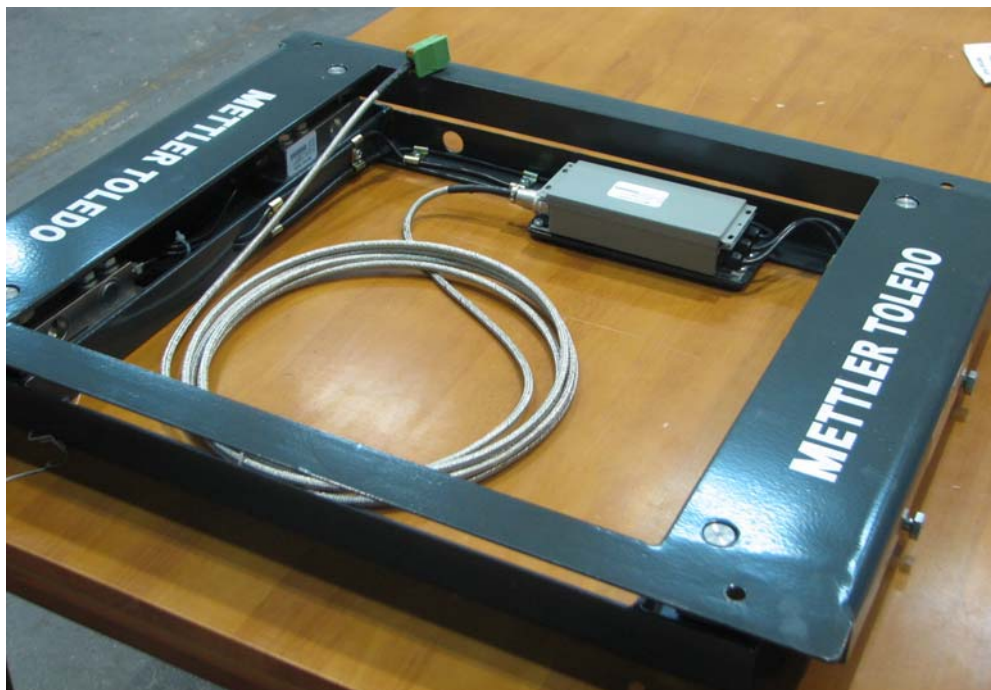
### **Maximum Permissible Errors at Verification/Certification**

The maximum permissible errors are specified in Schedule 12 of the *National Measurement Regulations 1999*.

FIGURE 6/9C/303 – 1



(a) Basework with conveyor and wheels fitted

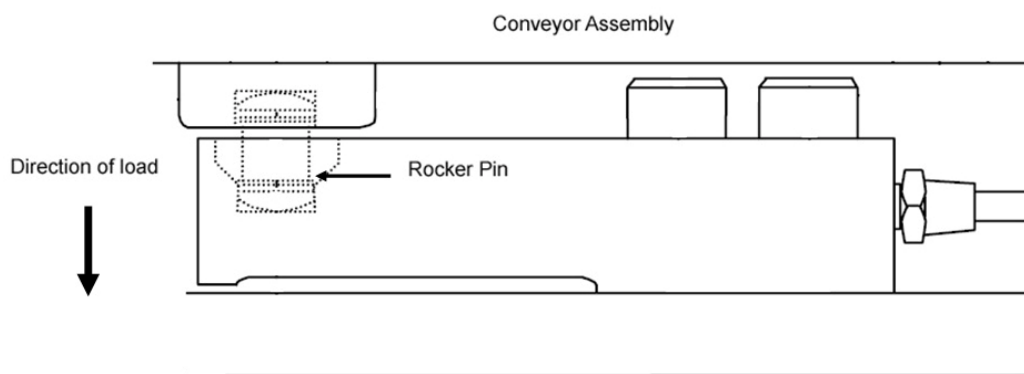


(b) Basework without conveyor

FIGURE 6/9C/303 – 2



(c) Basework (without conveyor & with platform removed)



(d) Model SBH-0.25 load cell mounting arrangement

Mettler Toledo Model PA300 Basework (Pattern)



FIGURE 6/9C/303 – 3



(a) Mettler Toledo Model IND205-DSVD Indicator



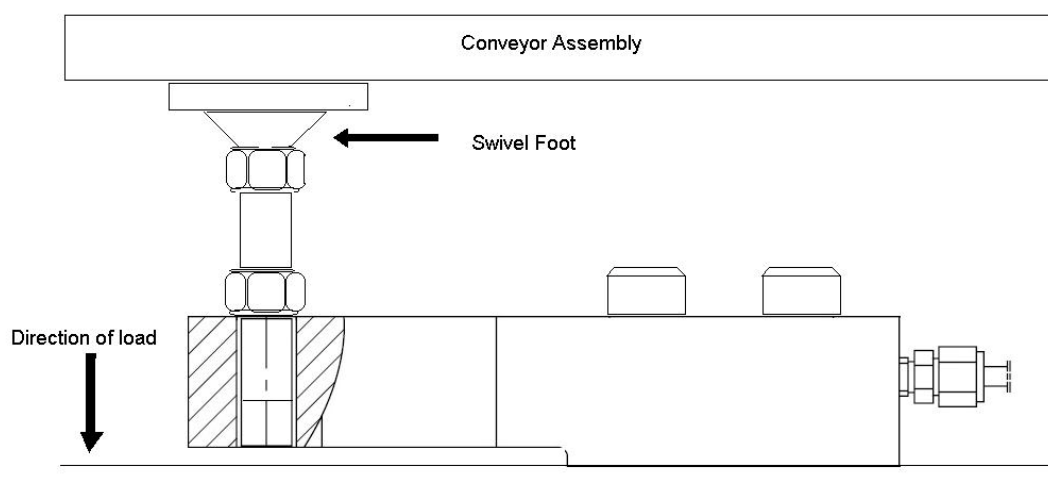
(b) Mettler Toledo Model 8624-C004 Customer Display



FIGURE 6/9C/303 – 4



(a) Basework without conveyor & with platform removed



(b) Model SBS-0.25 load cell mounting arrangement