



Bradfield Road, West Lindfield NSW 2070

## Certificate of Approval

### No 6/4D/353

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

ACLAS Model LS21530E Weighing Instrument

submitted by Xiamen Pinnacle Electrical Co., Ltd  
North 4F, Guangxia Building  
Torch High-Tech Zone, Xiamen  
CHINA.

**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 2015, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/4D/353' 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.

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.

Certain aspects of this instrument (in particular label and ticket formats) are able to be configured by the user. Whilst the National Measurement Institute believes that acceptable label and ticket 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.

#### DESCRIPTIVE ADVICE

**Pattern:** approved 31 May 2010

- An ACLAS model LS21530E class  $\text{\textcircled{III}}$  non-automatic multi-interval self-indicating price-computing weighing instrument with a maximum capacity of 30 kg.

**Variants:** approved 31 May 2010

1. Model LS2615E multi-interval instrument with a maximum capacity of 15 kg.
2. Model LS215E single interval instrument with a maximum capacity of 15 kg.
3. LS\*\*EC series instruments with an alternative display.

Technical Schedule No 6/4D/353 describes the pattern and variants 1 to 3.

#### FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/4D/353 dated 30 June 2010  
Technical Schedule No 6/4D/353 dated 30 June 2010 (incl. Test Procedure)  
Figures 1 to 3 dated 30 June 2010

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 6/4D/353

**Pattern:** ACLAS Model LS21530E Weighing Instrument

**Submittor:** Xiamen Pinnacle Electrical Co., Ltd  
North 4F, Guangxia Building  
Torch High-Tech Zone, Xiamen  
CHINA

## 1. Description of Pattern

An ACLAS model LS21530E non-automatic multi-interval self-indicating price-computing class  $\text{III}$  weighing instrument (Figures 1 and 2) with a verification scale interval  $e_1$  of 0.005 kg for up to 15 kg and with a verification scale interval  $e_2$  of 0.01 kg from 15 kg to 30 kg.

Instruments are fitted with an operator keyboard and a rectangular double-sided column-mounted liquid crystal display (LCD) for presentation of weight, unit price and price information, zero, 'net' indicators and information relating to product look up (PLU) items.

Instruments are fitted with an integral label printer.

Instruments display unit price to \$999999.99/kg, total price to \$999999.99, and have a product look up (PLU) facility.

The nominal platter size of the instrument is 345 mm × 263 mm.

Instruments may be fitted with output sockets (output interfacing capability) and wireless interfaces for the connection of auxiliary and/or peripheral devices.

The instrument operates from mains AC power (240 V AC, 50 Hz).

Instruments are approved for use over a temperature range of 0°C to +40°C and must be so marked.

### 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.

### 1.2 Tare

A semi-automatic subtractive tare device of up to 9.990 kg maximum capacity, may be fitted.

### 1.3 Levelling

The instrument is provided with adjustable feet and a level indicator, and adjacent to the level indicator is a notice advising that the instrument must be level when in use.

#### 1.4 Display Check

A display check of customer display is initiated whenever power is applied.

#### 1.5 Additional Features

The instrument may be fitted with certain additional functions such as “fixed weight” and “fixed price”.

The additional functions (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) including mass displays in any units other than g or kg, are not approved for trade use.

Note in particular that any pre-set tare facility is not approved for trade use and shall be disabled.

#### 1.6 Interfaces

The instrument may be fitted with interfaces for the connection of auxiliary and/or peripheral devices. The interfaces shall comply with clause 5.3.6 of 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 NMI General Supplementary Certificate No S1/0/A (in particular in regard to the data and its format).

Instruments may be fitted with Ethernet interfaces.

#### 1.7 Verification Provision

Provision is made for the application of a verification mark.

#### 1.8 Descriptive Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Xiamen Pinnacle Electrical Co., Ltd
Name or mark of manufacturer's agent	.....
Indication of accuracy class	Ⓜ
Pattern approval mark for the instrument	NMI 6/4D/353
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
Special temperature limits	0°C to +40°C
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*.

## 1.9 Sealing Provision

The calibration parameter of the instrument is protected by a jumper (link) on the main circuit board of the instrument.

Provision is made for the calibration adjustments to be sealed by means of a sealing wire and lead over the sealing screws on the bottom of the instrument (Figure 2).

## 2. Description of Variants

### 2.1 Variant 1

The ACLAS model LS2615E multi-interval weighing instrument with a verification scale interval  $e_1$  of 0.002 kg for up to 6 kg and with a verification scale interval  $e_2$  of 0.005 kg from 6 kg to 15 kg.

### 2.2 Variant 2

The ACLAS model LS215E single interval instrument with a maximum capacity of 15 kg. A semi-automatic subtractive tare device of up to 7.990 kg maximum capacity, may be fitted.

### 2.3 Variant 3

The pattern or variants 1 and 2 fitted with an alternative (square) double-sided column-mounted liquid crystal display (Figure 3) in which case the model number suffix 'E' is replaced by 'EC', e.g. the pattern, model LS21530E, becomes a model LS21530EC.

## TEST PROCEDURE

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

### Maximum Permissible Errors

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

For multi-interval instruments with verification scale intervals of  $e_1, e_2 \dots$ , apply  $e_1$  for zero adjustment, and maximum permissible errors apply  $e_1, e_2 \dots$ , as applicable for the load.

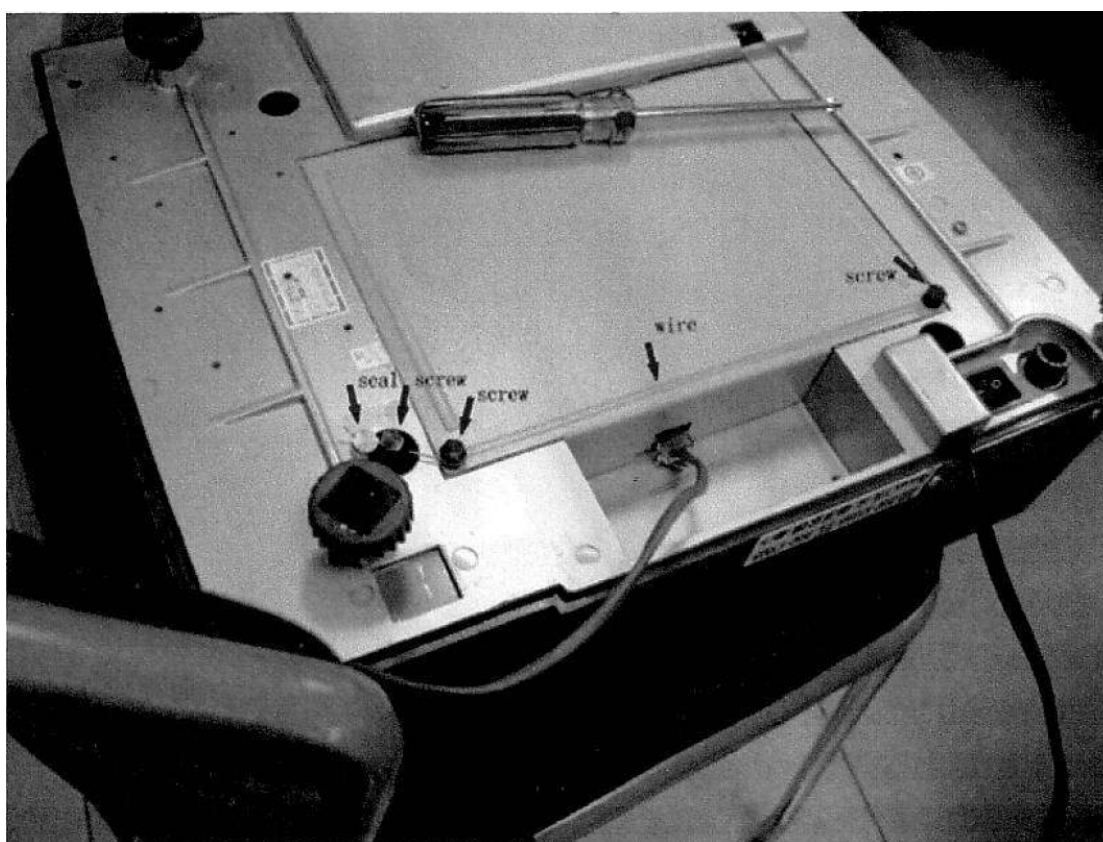
Ensure that instruments are only being used within the special temperature limits stated elsewhere in this Technical Schedule.

FIGURE 6/4D/353 – 1



ACLAS Model LS21530E Weighing Instrument

FIGURE 6/4D/353 – 2



Typical Sealing Arrangement – using wire and lead seal (or similar)

FIGURE 6/4D/353 – 3



Typical instrument with an alternative (square) display, in this case a model LS2615EC instrument