



Australian Government

National Measurement
Institute

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/4C/286

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.

CAS Model FW500-E30 Weighing Instrument

submitted by CAS Corporation
#262, Geurugogae-ro, Gwangjoek-myeon
Yangju-si, Gyeonggi-do
Republic of Korea

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.

This approval becomes subject to review on **1/04/19**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern and variants 1 & 2 approved – certificate issued	28/03/14

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/4C/286' 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.

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 read 'Dr A Rawlinson', with a horizontal line underneath.

Dr A Rawlinson

TECHNICAL SCHEDULE No 6/4C/286

1. Description of Pattern **approved on 28/03/14**

The CAS model FW500-E30 class III non-automatic multi-interval self-indicating weighing instrument (Figure 1) with a verification scale interval e_1 of 0.005 kg up to 15 kg and with a verification scale interval e_2 of 0.010 kg from 15 kg up to 30 kg.

The instrument is provided with an LED display for the operator and may be provided with an additional customer display. Instruments shall be marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording) unless two displays are present, or unless the instrument is permanently installed in a fixed location in which the single display is located such that all primary indications are clearly and simultaneously visible to both the vendor and the customer (e.g. incorporated into a check-out counter).

Power for the FW500-E30 instrument may be supplied by either:

- an AC/DC mains adaptor; or/and
- an internal 6 V rechargeable battery.

Note: The AC/DC mains adaptor supplied for the instrument was a CAS model FKS308HSC-1201250S (12 V DC, 1.25 A) – the submitter should be consulted regarding the acceptability of alternative power supply units.

1.1 Zero

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.

A zero-tracking device may be fitted.

1.2 Tare

A semi-automatic subtractive tare device of up to 14.995 kg may be fitted.

1.3 Display Check

A display check is initiated whenever power is applied.

1.4 Levelling

The instrument is provided with adjustable feet and adjacent to the level indicator is a notice stating 'Instrument must be level when in use' or similar wording.

1.5 Additional Features

Instruments may be fitted with a HOLD function. The function and display are not approved for trade use.

1.6 Sealing Provision

Provision is made for access to the calibration switch within the instrument to be sealed by means of lead and wire type or similar seals with a sealing bolt and a cover plate (Figure 2, 'Wire Sealing'), or a destructible adhesive label placed so as to restrict removal of the cover plate over the accessing hole (Figure 2, 'Sticker Sealing'). Note that where two displays are provided, sealing is only required on the display which carries the operational controls (ON/OFF, ZERO, TARE etc).

1.7 Verification Provision

Provision is made for the application of a verification mark.

1.8 Descriptive Markings and Notices

Instruments carry the following markings:

(a)	Manufacturer's mark, or name written in full	CAS Corp Korea
	Indication of accuracy class	Ⓜ
	Pattern approval mark for the instrument	NMI 6/4C/286
	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*.

(b) Where only a single display is provided instruments may need to be marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (refer clause 1.).

2. Description of Variant 1

approved on 28/03/14

Other models of the FW500-E series and in certain other capacities as listed in Table 1.

TABLE 1

Model (##)	Maximum Capacity (<i>Max</i> ₁ / <i>Max</i> ₂)	Minimum Capacity (<i>Min</i>)	Verification Scale Interval (<i>e</i> ₁ , <i>e</i> ₂)	Maximum Subtractive Tare Capacity (<i>T</i> = - ...)
FW500-C6/E6	3/6 kg	0.02 kg	0.001/0.002 kg	2.999 kg
FW500-C15/E15	6/15 kg	0.04 kg	0.002/0.005 kg	5.998 kg
FW500-C30/E30	15/30 kg	0.1 kg	0.005/0.01 kg	14.995 kg

(##) The pattern (model FW-500-E30) is shown in **bold** text. Model numbers have either an 'E' suffix (pattern and variant 1) or a 'C' suffix (variant 2), followed by numerals representing the maximum capacity (in kg), e.g. 6, 15 or 30.

3. Description of Variant 2

approved on 28/03/14

The CAS FW500-C series (Table 1) which are similar to the pattern and variant 1 but have an alternative LCD display (Figure 3).

TEST PROCEDURE No 6/4C/286

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

Maximum Permissible Errors

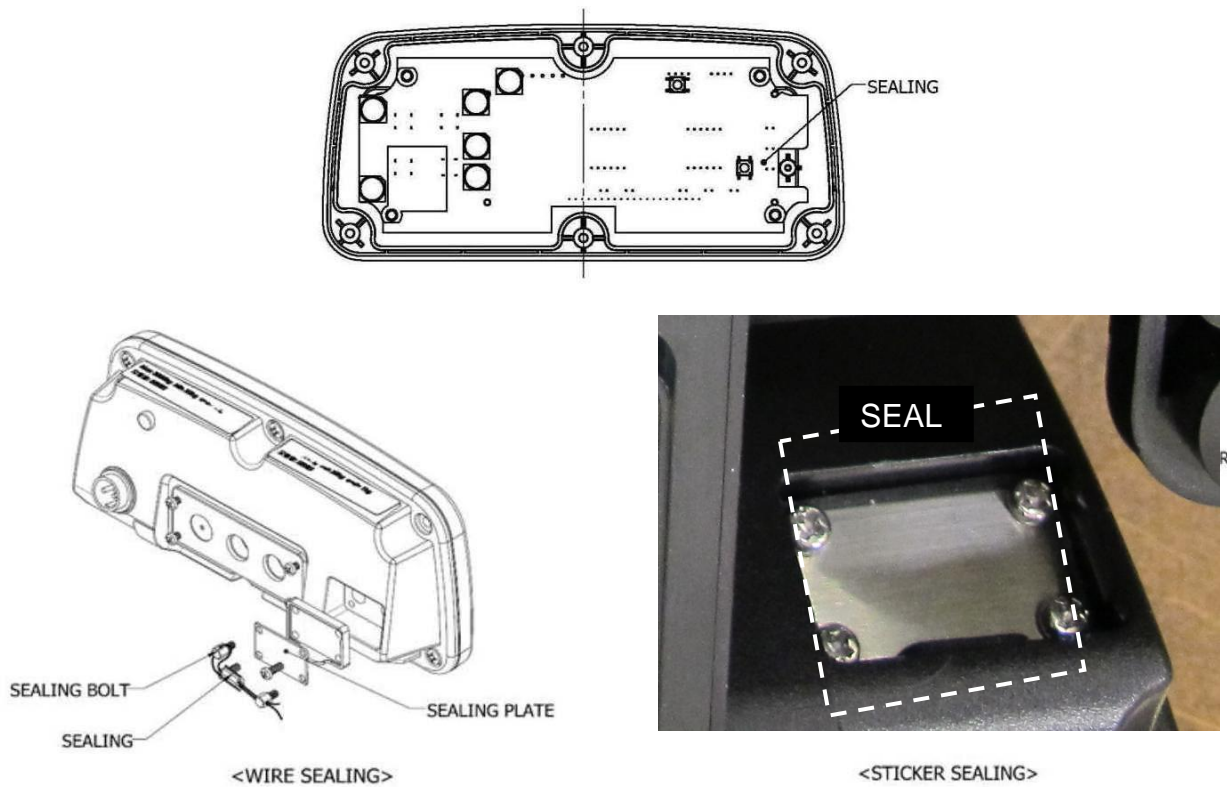
The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

FIGURE 6/4C/286 – 1



CAS Model FW500-E30 Weighing Instrument (The Pattern)

FIGURE 6/4C/286 – 2



Showing Typical Sealing

FIGURE 6/4C/286 – 3



Typical CAS FW500-C Series Weighing Instrument (Variant 2)

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