NMO

UK 3110

EU-type examination certificate
UK 3110 Revision 1

Issued by:

NMO
Notified Body Number 0126

In accordance with the requirements of the Non-automatic Weighing Instruments Regulations 2016 (S.I. 2016 No. 1152) which implement, in the United Kingdom Council Directive 2014/31/EU, this EU-type examination certificate has been issued to:

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

In respect of a family of single or dual-interval, Class III, non-automatic weighing instruments designated the SWII PLUS Series and having the following characteristics:

$1.5\ kg \leq$ Maximum capacity $\leq 30\ kg$
$e \geq 0.5\ g$
$n \leq 3000$ for Class III instruments with single interval
$n_i \leq 3000$ for Class III instruments with multi-interval, with a maximum of two partial weighing ranges

The necessary data (principal characteristics, alterations, securing, functioning etc) for identification purposes and conditions (when applicable) are set out in the descriptive annex to this certificate.

This revision replaces previous versions of the certificate.

Issue date: **01 March 2019**
Valid until: **07 November 2028**

Grégory Glas
Lead Technical Manager
For and on behalf of the Head of Technical Services

UKAS PRODUCT CERTIFICATION
0135

Descriptive Annex

1 INTRODUCTION

This family of instruments is designated the SWII PLUS Series and comprises the SWII-CW (Figure 1) and SWII-EW (Figure 2) models. The instruments are Class III, mains- or battery-operated, self-indicating, single or dual-interval, waterproof, non-automatic weighing instruments.

The instruments may be used for direct sales to the public.

2 DESCRIPTION

2.1 Construction

2.1.1 Main features

- Plastic construction
- Operator keypad
- Stainless steel load receptor
- Front LCD (SWII-CW) or LED (SWII-EW) display
- Optional rear LCD (SWII-CW) or LED (SWII-EW) display
- Waterproof enclosure
- Operator keypad
- Level indicator

2.1.2 Devices

- Initial zero setting device (≤ 20% of Max)
- Semi-automatic zero setting device (≤ 4% of Max)
- Automatic zero setting device (≤ 4% of Max)
- Zero tracking device (≤ 4% of Max)
- Zero indicator
- Net indicator
- Unit change (g, kg)
- Stable weight indicator
- Semi-automatic subtractive tare balancing device
- Gravity compensation
- Piece counting
- Hold function
- Checkweighing
- 3-point calibration

2.1.3 Load cell

The load cell is a CAS load cell, model SWII, capacities (E_{max}) as per table 3.2.

2.2 Operation

2.2.1 Switch-on

At switch-on, a display test is performed to ensure that the displays have no defect.

2.2.2 Zero-tracking

Zero tracking operates provided that the instrument is within range of not more than 4% of its capacity.

2.2.3 Semi-automatic zero setting

The zero button operates provided that the instrument is within range of not more than 4% of its capacity.

2.2.4 Automatic zero setting

Automatic zero setting operates only when the instrument has been stable below zero for at least 5 seconds.

2.2.5 Over-range and under-range

If the load is less than gross zero, the display shows a "-" sign before the value. Any weight below -20 d results an error message being displayed ("- - - - - -").

The instrument may be set to display weights up to nine divisions above Max. At greater loads the display shows "Err3".

2.2.6 Tare

Subtractive tare balancing can be performed; the net indicator is on when a tare is active.

2.3 Model variants and designation

Model	Display	Variant designation	Options	Remarks
SWII-W	LCD	SWII-CW	• Rear LCD display • Waterproof adaptor • Rechargeable battery	LCD display
	LED	SWII-EW	• Rear LED display • Waterproof adaptor • Dry battery	LED display

3 TECHNICAL DATA

3.1 Power supply

The instruments may be fitted with the following power supplies:

- 100 to 240 Vac (50/60 Hz) mains power supply (9 VDC)
- Integrated Pb 6V/3.2Ah battery
- 4 x 1.5 V dry battery (D type)

3.2 Metrological characteristics

Max (kg)	1.5/3	3	3/6	6	6/15	15	15/30	30
Min (g)	10	20	20	40	40	100	100	200
e = (g)	0.5/1	1	1/2	2	2/5	5	5/10	10
T≤	- 1.4995	-3	-2.999	-6	-5.998	-15	-14.995	-30
E_{max} (kg)	3	3	6	6	15	15	30	30

Note: E_{max} in the above table refers to the actual measuring range and does not include the dead load for the instrument.

The temperature range for the instrument is -10 °C / +40 °C.

3.3 Software

The software is designated V4.xx, with xx reflecting minor, non-legally relevant modifications. This information is displayed at power up.

Access to the legally relevant parameters is only possible by accessing the calibration switch on the main board. Access to this calibration switch and download of software is prevented by sealing the enclosure (Section 6.2).

3.4 Documentation and drawings

The instrument is fully described in the technical file held at NMO.

4 PERIPHERAL DEVICES AND INTERFACES

4.1 Interfaces

The instrument has no interfaces.

5 APPROVAL CONDITIONS

This certificate is issued subject to the following conditions:

5.1 Legends and Inscriptions

5.1.1 The instrument bears the following legends on or near the display:

Max
Min
e =

5.1.2 The instrument shall bear the following inscriptions: (Figure 3):

- CE marking
- Supplementary metrology marking
- Identification number of the notified body
- Number of the EU-type examination certificate
- Manufacturer's name, registered trade name or registered trade mark and postal address
- Accuracy class
- Type, batch or serial number
-

and, when applicable:

- for instruments consisting of separate but associated units: identification mark on each unit;
- scale interval if it is different from e, in the form d = …;
- maximum additive tare effect, in the form T = + …;
- maximum subtractive tare effect if it is different from Max, in the form T = – …;
- tare interval if it is different from d, in the form d_T = …;
- maximum safe load if it is different from Max, in the form Lim …;
- the special temperature limits, in the form … ^{o}C/… ^{o}C;
- ratio between load receptor and load.

The markings and inscriptions shall fulfil the requirements of Article 6, Article 16, Article 17 and Point 1 of Annex III of Directive 2014/31/EU.

6 LOCATION OF SEALS AND VERIFICATION MARKS

6.1 The data plate is secured, either by sealing or by being of a form such that it is destroyed when removed.

6.2 Access to the load cell, electronics, calibration and software download switch must be secured via a tamper-evident solution bearing a securing mark. The securing mark may be either:

- a mark of the manufacturer and/or manufacturer's representative, or
- an official mark of a verification officer.

Figure 4 show the sealing method for the instruments.

6.3 Verification marks, and the CE-marking, are located on, or adjacent to, the data plate.

7 ALTERNATIVES

7.1 Having the instruments manufactured by the following companies:

Shanghai CAS Electronics Co., Ltd,
Maixinroad 448, Xinqiaozhen, Songjiangqu,
Shanghai, China

CAS Elektronik San. Tic. A.S.
Yukari Dudulu, Bostanci Cad. Mevdudi Sokak No: 34
Umraniye-Istanbul, Turkey

CAS (Zhejiang) Electronics Co., Ltd
99# Changjiang Road
Jiashan County
Zhejiang Province, China

8 ILLUSTRATIONS

Figure 1 SWII-CW
Figure 2 SWII-EW
Figure 3 Rating plate example
Figure 4 Sealing method

CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
UK 3110	08 November 2018	Type approval first issued.
UK 3110 Revision 1	01 March 2019	Section 1, SWI corrected to SWII. Figure 4 updated.

Figure 1 SWII-CW

Figure 2 SWII-EW

MODEL : SERIAL NUMBER

Max Min e=d= T=

POWER POWER CONSUMPTION MAX. W

MANUFACTURING DATE : . . . APPROVAL NO.

MANUFACTURED BY CAS CORPORATION (III)

Figure 3 Rating plate example

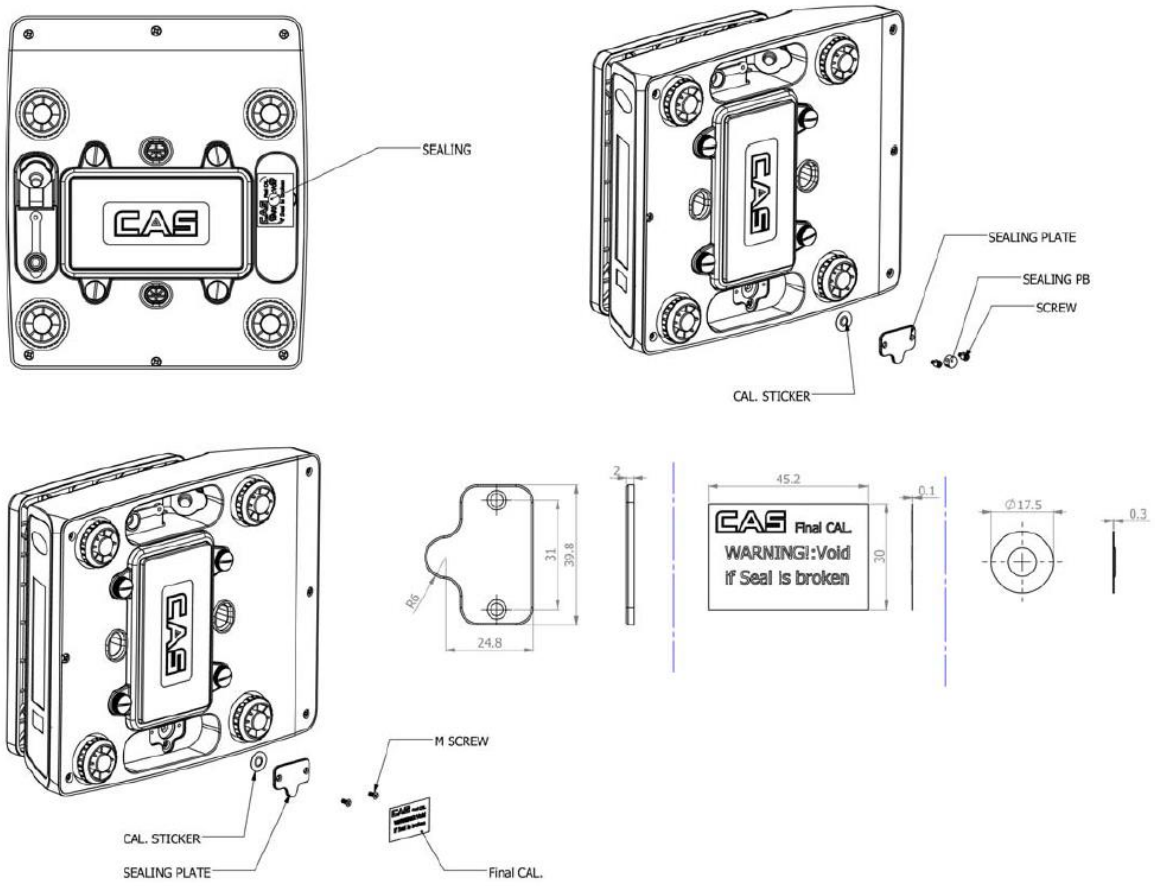

Figure 4 Sealing method