

EU Type Examination Certificate

No. 0200-MID-13629

CW

AUTOMATIC CATCHWEIGHING / CHECKWEIGHING INSTRUMENT

Issued by **FORCE Certification**
EU - Notified Body No. 0200

In accordance with the requirements in Directive 2014/32/EU of the European Parliament and Council.

Issued to **ESIT Ltd. Sti.**
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In respect of Automatic catch weighing instrument designated CW for dynamic weighing with variants of peripheral equipment.
Accuracy class XIII(1) or XIII(2) or Y(a).
Maximum capacity, $6 \text{ kg} \leq \text{Max} \leq 60 \text{ kg}$.
Verification scale interval: $e \geq 2 \text{ g}$
Maximum number of verification scale intervals: $n = 3000$
Variants of modules and conditions for the composition of the modules are set out in the annex.

The conformity with the essential requirements in Annex 1 and the specific requirements in Annex MI-006, chapter I & II of the Directive 2014/32/EU is met by the application of OIML R51-1:2006, WELMEC Guide 7.2 and CT-006-II:2020.

Note: **This certificate is a revised edition which replaces DK0199.340 and extend the validation period.**

The principal characteristics and approval conditions are set out in the descriptive annex to this certificate.

The annex comprises 10 pages.

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Valid until **2032-07-16**

Descriptive annex

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1. Name and type of instrument and modules

The instrument is an automatic catchweigher and checkweigher designated CW for dynamic weighing and is consisting of a LCA-CW weighing indicator mounted on the steel chassis having an inlet belt conveyor, an outlet belt conveyor, and a weighing belt, which is mounted on a load receptor equipped with 1 or 4 analog load cells.

The instrument is a self-indicating weighing instrument with single-interval and is powered with 12-24 VDC to the indicator and 230 VAC to the belt motors.

The separate units that the weighing instrument is composed of are listed in Section 2.1.

The modules appear from Sections 3.1, 3.2 and 3.3.

2. Description of the construction and function

2.1 Construction

2.1.1 LCA-CW weighing indicator

The weighing indicator is a microprocessor controlled PCB, which performs all the controls of the automatic weighing instrument and all the data processing.

The indicator has a 2 x 16 characters dot matrix LCD-display and a keypad with 3 keys.

2.1.2 Load cells

Set out in Section 3.2.

2.1.3 Load receptor

Set out in Section 3.3.

2.1.4 Interfaces and peripheral equipment

Set out in Section 4.

2.2 Functions

LCA-CW has two modes: dynamic and static. Although the mode can be set independent of whether the belts are running or not, it is only possible to perform automatic weighing in dynamic mode with the belts running.

The functions provided are detailed below.

2.2.1 Functions and devices

The automatic weighing instrument has the following permitted functions and devices that are subject to the Measuring Instrument Directive:

- Power up test
- Initial zero setting device (± 10 % of Max)
- Automatic zero setting device (± 2 % of Max) – dynamic mode only
- Semiautomatic zero setting device (± 2 % of Max) – static mode only
- Zero tracking device (± 2 % of Max) – static mode only
- No motion detection and indication
- Tare weighing mode
- Detection of significant fault

2.2.2 Software version

Identification of the software version is performed during power-up (see Section 2.2.1).

The approved software version is v1.0a.

3. Technical data

The automatic weighing instruments and its modules are set out as follows:

3.1 CW Automatic catchweighing instrument

Type:	CW..
Accuracy class:	XIII(1), XIII(2) or Y(a)
Weighing mode:	Dynamic
Weighing range:	Single-interval
Maximum capacity (Max):	$6 \text{ kg} \leq \text{Max} \leq 60 \text{ kg}$
Minimum capacity (Min):	$\geq 20 \times e$
Verification scale interval (e):	$\geq 2 \text{ g}$
Number of Verification Scale Intervals (n):	≤ 3000
Maximum tare effect:	$\leq 100 \%$ of Max
Excitation voltage:	10 VDC
Min. input voltage per verification scale interval:	$2.0 \mu\text{V}$
Temperature range:	+10 °C to +40 °C
Power Supply:	12 to 24 Vdc, plus 230 VAC for belt motors
Electromagnetic class:	E2
Humidity:	Non-condensing
Belt speed:	$\leq 0.65 \text{ m/s}$, fixed speed
Maximum time between auto-zero:	7 minutes
Warm-up time:	4 minutes
Installation:	Fixed.

3.2 Load cells

3.2.1 General acceptance of load cells

Any load cell(s) may be used for instruments under this certificate of type approval provided the following conditions are met:

- 1) A test certificate (EN 45501) or a respective OIML Certificate of Conformity (R60:2000 or R60:2017) is issued for the load cell by a Notified Body responsible for type examination under the Directive 2014/31/EU.
- 2) The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules (EN45501:2015, annex F), and any particular installation requirements). A load cell marked NH is allowed only if humidity testing to EN 45501 has been conducted on this load cell.

- 3) The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in the above EN45510 document, or the like, at the time of EC verification or declaration of EC conformity of type.
- 4) The load transmission must conform to one of the examples shown in the WELMEC 2.4 Guide for load cells.

3.3 Load receptors

The weighing belt rests on a frame placed on one or four load cells.

The load cell(s) is mounted on the chassis of the weighing instrument and positioned under the center of the weighing belt (in case of four load cells they are placed under the corners of the weighing belt). The chassis incorporates adjustable feet for levelling; however, the instrument is intended for fixed installation (Figure 1).

The weighing belt can vary depending on the maximum capacity of the system, whereas the weighing belt length is dependent upon maximum length of items to be weighed. However, the design ensures that a minimum weighing time is always obtained.

The weighing belt speed is fixed

3.4 Composition of modules

In case of composition of modules, EN 45501 paragraph 3.5 and 4.12 shall be satisfied.

3.5 Documents

The documents filed at FORCE (reference No. T200359) are valid for the weighing instruments described here.

4. Interfaces and peripheral equipment

4.1 Interfaces

The interfaces are protective interfaces within the meaning of 2014/32/EU annex I, sect. 8.1 and need not to be secured.

4.1.1 Serial interfaces

The Weighing controller is equipped with the following serial interfaces,

- RS232 / RS485 for communication to peripherals.

4.2 Peripheral equipment

Connection between the indicator and peripheral equipment shall be done by screened cables.

The instrument may be connected to any simple peripheral device with a CE mark of conformity.

5. Approval conditions

5.1 Connection of cables

All communication cables shall be shielded and the shield shall be properly EMC wise connected to the housing / connector in both ends.

5.2 Compatibility of modules

For composition of modules, EN45501:2015 annex F shall be satisfied.

6. Special conditions for verification

The initial verification shall be performed according to OIML R51:2006.

6.1 Composition of modules

The environmental conditions should be taken into consideration by the composition of modules for a complete weighing instrument, for example instruments with load receptors placed outdoors and having no special protection against the weather.

7. Securing and location of seals and verification marks

7.1 Securing and sealing

Seals shall bear the verification mark of the manufacturer or alternative mark of a notified body according to ANNEX II, module F or D of Directive 2014/32/EU.

7.1.1 Weighing indicator LCA-CW

As the weighing indicator has a calibration switch inside it shall be sealed against opening by two brittle plastic stickers placed across the enclosure assembly opposite to each other.

7.1.2 Load Cell

The load cell is connected with screw terminals inside the LCA-CW they are sealed against exchange by the sealing of the LCA-CW indicator.

7.2 Identification plate

The identification plate shall be secured against removal with a brittle plastic sticker.

7.3 Verification marks

A metrological M-sticker and a sticker with verification marks are to be placed on the identification plate of the instrument.

8. Location of CE mark of conformity and inscriptions

8.1 Identification plate

All inscriptions for the instrument shall be placed on the identification plate, which is normally located on the front of the weighing indicator.

8.1.1 CE mark and metrological M

A CE mark of conformity and year of production grouped together with space for the metrological M shall be located on the identification plate.

8.1.2 Inscriptions

The identification plate shall bear the following inscriptions:

- Manufacturer's trademark and / or name
- Manufacturer's postal address
- Type designation
- Serial number
- Max, Min and e(these shall additionally be duplicated near the display unless the description plate is located near the display)
- Belt conveyer speed
- Temperature range: +10°C / +40°C
- Electromagnetic class: E2
- Humidity: Non-condensing
- Supply voltage
- Type examination certificate number

9. Pictures

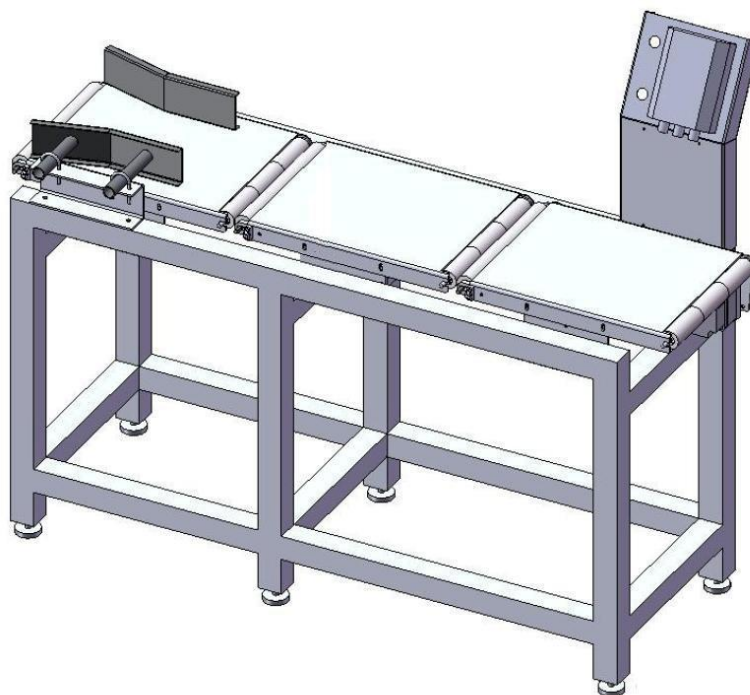


Figure 1 CW.. checkweigher



Figure. 2 LCA-CW weighing indicator

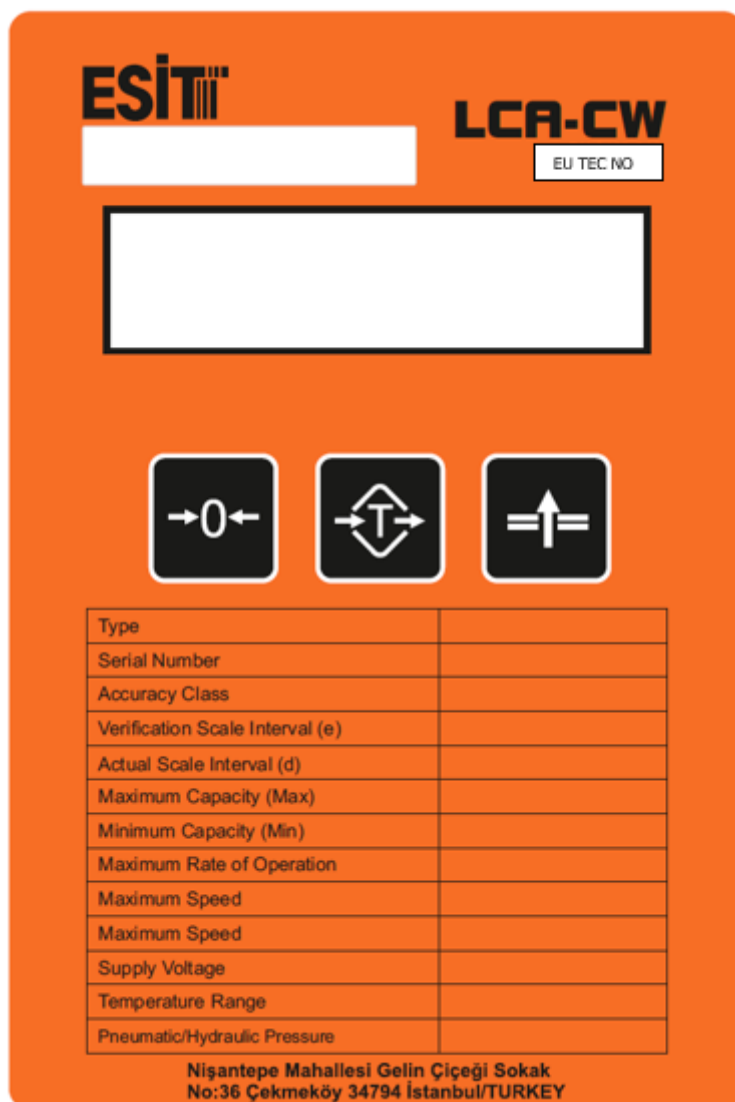
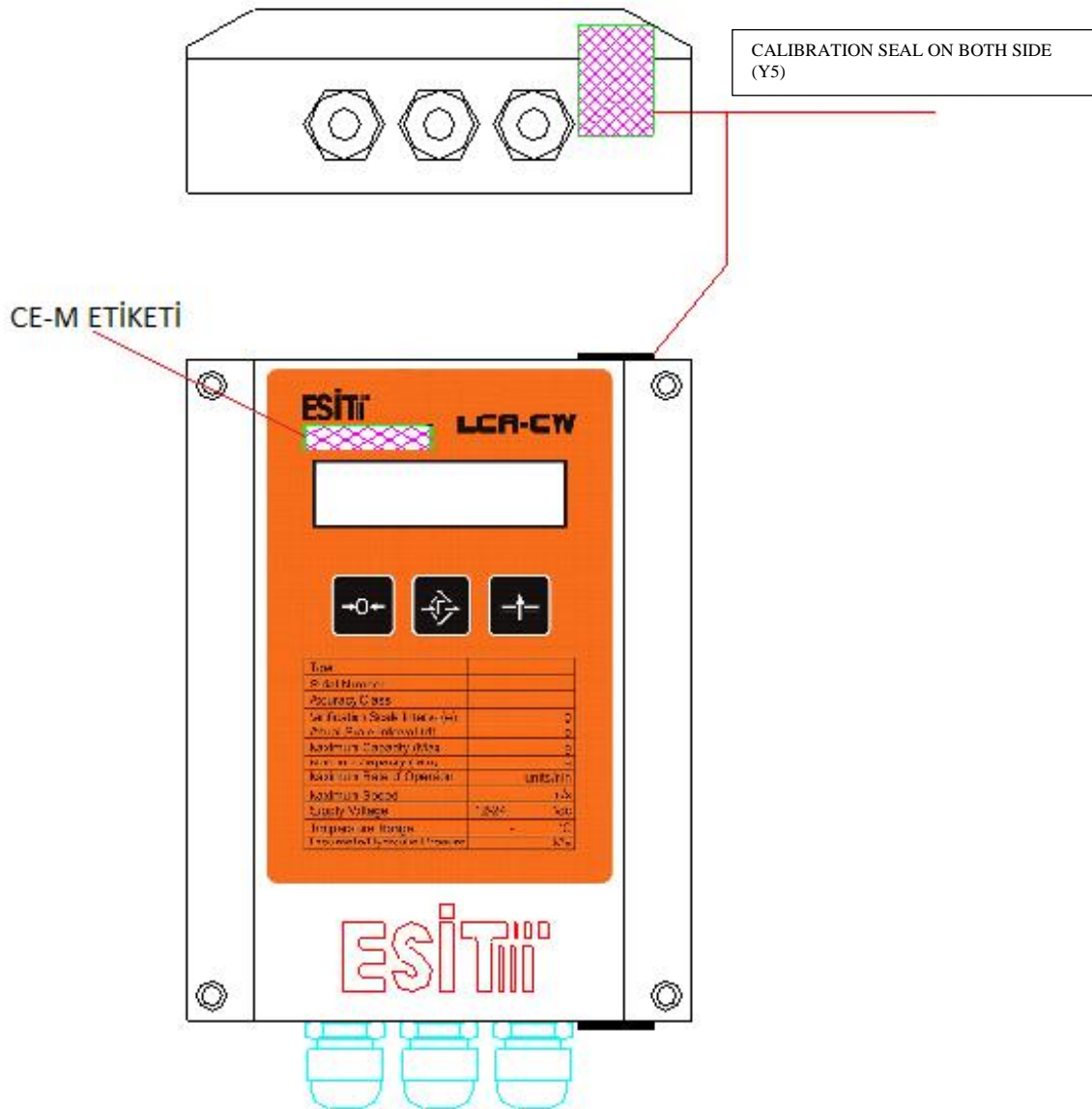
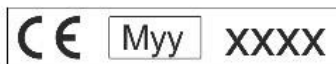


Figure 3 Inscription plate of LCA-CW



CE-M-LABEL



yy : Last 2 number of the year it is affixed .
xxxx: Notified body number.



Figure 4 Sealing of LCA-CW

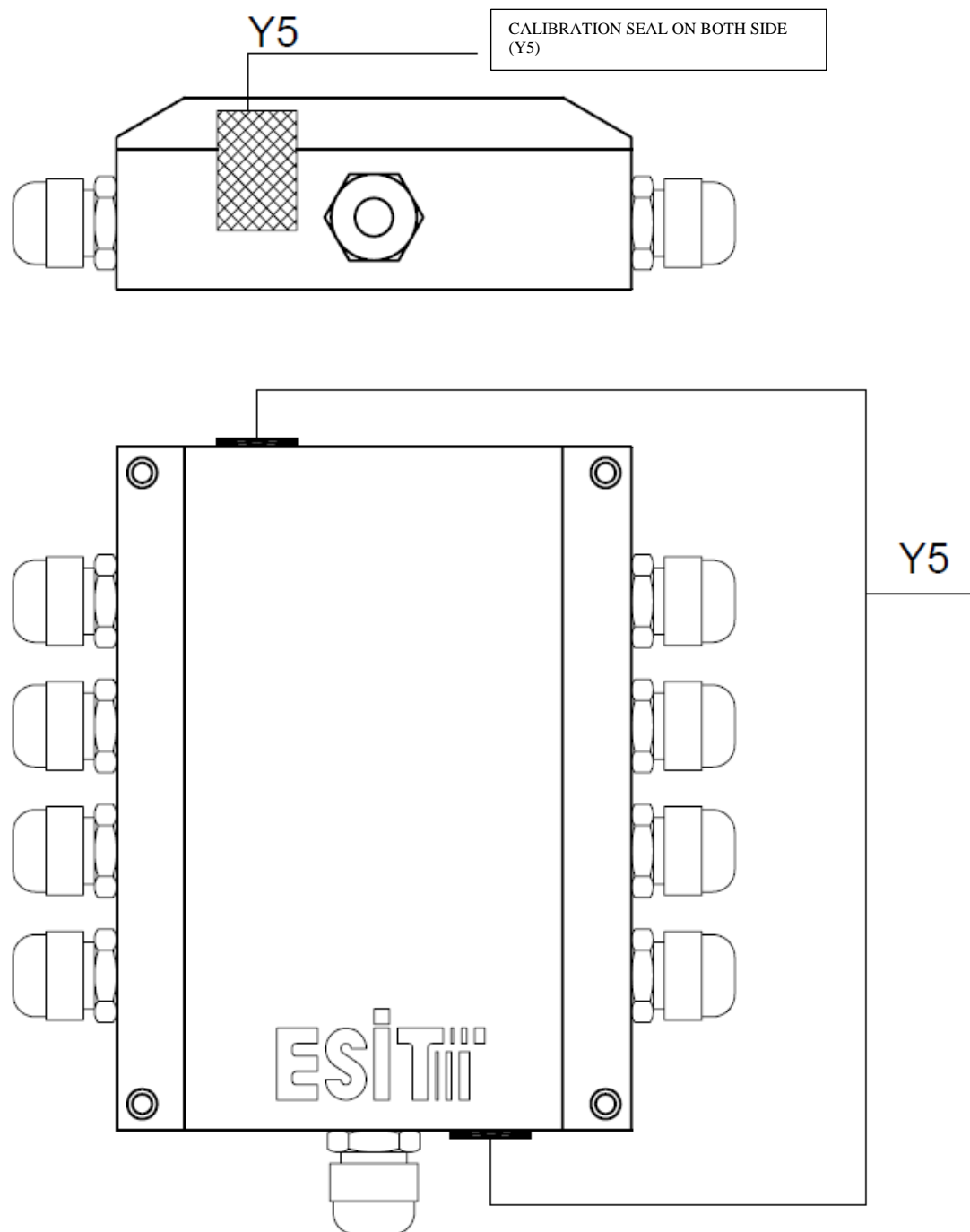


Figure 5 Sealing of junction box (if used)