

EU-type examination certificate UK 2931 Revision 6

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:

Dini Argeo S.r.l.
Via della Fisica 20
41042 Spezzano di Fiorano
Modena
Italy

In respect of a family of Non-Automatic Weighing Instruments designated the 3590E, CPWE, DFW and DGT Series having the following characteristics:

$n \leq 10,000$ for single-interval, multi-interval or multi-range, Class III
 $n \leq 1,000$ for single-interval, multi-interval or multi-range, Class IIII

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: 25 June 2018
Valid until: 20 September 2022



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



0135

Descriptive Annex

1 NAME AND TYPE OF INSTRUMENT

The designated certified weight indicators are designed to be connected to a load receptor to form a Class III and IIII, Non-Automatic Weighing Instrument. The instruments can either be mains or DC battery-powered, self indicating, Non Automatic Weighing Instruments.

The indicators consists of analogue to digital conversion circuitry, microprocessor control circuitry, power supply, keyboard, non-volatile memory for storage of calibration and setup data, and a weight display contained within a single enclosure.

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

2 DESCRIPTION

2.1 Construction and devices

The digital weight indicators are fully described in Parts (Test) Certificate GB-1461.

2.2 Load cell

Any compatible load cell(s) may be used providing the following conditions are met:

- There is a respective OIML Certificate of Conformity (R60), or a test or parts certificate (EN: 45501) issued for the load cell by a Notified Body responsible for type examination under Directive 2014/31/EU.
- The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules (WELMEC 2, 2015, No 10), and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to EN45501 has been conducted on this load cell.
- The compatibility of the load cells and indicator is established by the manufacturer by means of the compatibility of modules calculation, contained in the above WELMEC 2 document, at the time of verification or declaration of EU conformity of type.
- The load cell transmission must conform to one of the examples shown in the WELMEC Guide 2.4, "Guide for Load cells".

2.3 Digital load cells

The 3590 or 3590E indicators may be connected through the serial line with up to 64 digital cells which may be of the following:

| Manufacturer | Model | Test Certificate | Issued by |
|--------------|----------|------------------|-----------|
| Flintec | RC3D | TC6586 | NMi |
| HBM | C16i | D09-00.46 | PTB |
| Scaime | CB50X-DL | TC7078 | NMi |
| Dini Argeo | RCD | TC7547 | NMi |

When digital load cells are used the number of verification scale intervals is limited to the number specified in the applicable Test or Parts Certificate.

3 TECHNICAL DATA

3.1 Technical data for the indicator is provided in Parts (Test) Certificate GB-1461.

4 PERIPHERAL DEVICES AND INTERFACES

4.1 Interfaces

- 4 or 6 wire load cell connection
- DC voltage input
- RS-232
- RS-485
- Control inputs/outputs
- USB
- Ethernet
- Bluetooth
- RF (Radio frequency)
- WiFi

4.2 Peripheral devices

The instrument may be connected to any peripheral device that has been issued with Parts (Test) Certificate by a Notified Body responsible for Module B under Directive 2014/31/EU and bears the CE marking of conformity to the relevant directives; or

A peripheral device without a Parts (Test) certificate may be connected under the following conditions:

- it bears the CE marking for conformity to the EMC Directive;
- it is not capable of transmitting any data or instruction into the weighing instrument, other than to release a printout, checking for correct data transmission or validation;
- it prints weighing results and other data as received from the weighing instrument without any modification or further processing; and
- it complies with the applicable requirements of EN45501, i.e. 4.2, 4.4, 4.6 and 4.7.

A printing device may print additional information such as date or number to identify the printed weighing result(s) or sets of weighing results.

5 APPROVAL CONDITIONS

This certificate is issued subject to the following conditions:

5.1 Inscriptions

5.1.1 The instrument shall bear the following inscriptions on or near the display:

- Max
- Min
- e =

5.1.2 The instrument shall bear the following inscriptions:

- 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 $d = \dots$;
- maximum additive tare effect, in the form $T = + \dots$;
- maximum subtractive tare effect if it is different from Max , in the form $T = - \dots$;
- tare interval if it is different from d , in the form $d_T = \dots$;
- maximum safe load if it is different from Max , in the form $Lim \dots$;
- the special temperature limits, in the form $\dots \text{ }^\circ\text{C}/\dots \text{ }^\circ\text{C}$;
- 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 Components that may not be dismantled or adjusted by the user must be secured. Common serial numbers, a wire and seal solution or a suitable mark may be used. The securing mark may be either:

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

6.3 Verification marks and CE-marking shall be grouped together.

6.4 When software sealing is used, the CONFIG and CAL counters' values shall be written on a tamper-evident label on or near the rating plate.

7 AUTHORISED ALTERNATIVES

7.1. Combined multi-platform weighing system

The following weighing system is assembled by using a series of approved digital platforms/load cells and weight repeaters connected to form a single weighing instrument. The indicator/display receives the weight information from the digital platforms/load cells via a hard-wired connection or by utilising RF transmission. The indicator/display can be used in a fixed position or it can be used as a portable device staying within the permitted RF range of up to 100 m (according to environment conditions).

The weighing system can be configured to use up to 32 digital platforms/load cells which are

all connected to the digital indicator/display. The indicator/display receives the weight data from each digital platform/load cell, with the total weight value displayed on the primary digital indicator/display. If any of the other platforms within this weighing instrument has its own weight display then these must be disabled when used in this configuration.

When configuring/calibrating/verifying/using the instrument in this configuration the digital platforms/load cells are to be treated as a single load receptor with the load applied simultaneously to all platforms/load cells.

7.2 Alternative digital load cells

The indicators may be connected through the serial line to up to 64 digital cells which may be of the following:

| Manufacturer | Model | Test Certificate | Issued by |
|-----------------------|------------|------------------|------------------------------------|
| Dini Argeo | RCPTD | TC8786 | NMi |
| Utilcell / Dini Argeo | 740D/ RCUD | E-04.02.C06 | Departament de Treball I Industria |

7.3 Alternative digital load cells

The indicators may be connected through the serial line to up to 64 digital cells which may be of the following:

| Manufacturer | Model | Test Certificate | Issued by |
|---------------|-------|---|---------------------|
| Sensocar S.A. | SP-D | E-02.02.C02 5 th addition | Applus Laboratories |

8 ILLUSTRATIONS

- Figure 1 3590E Indicator
- Figure 2 CPWE Indicator
- Figure 3 DGT Indicator
- Figure 4 DFW Indicator
- Figure 5 Example of legal markings
- Figure 6 Examples of connections between indicators and load cells
- Figure 7 Examples of Combined multi-platform weighing system

CERTIFICATE HISTORY

| ISSUE NO. | DATE | DESCRIPTION |
|--------------------|-------------------|---|
| UK 2931 | 21 September 2012 | Type approval first issued. |
| UK 2931 Revision 1 | 12 April 2013 | Creation of section 2.3 Digital load cells. Table in section 1 removed. Figures 6 to 23 added. |
| UK 2931 Revision 2 | 01 November 2013 | Creation of section 7.1 and amendments to section (Figures 6 to 23 removed, new Figures 6 & 7) |
| UK 2931 Revision 3 | 11 April 2016 | Section 7.2 added. |
| UK 2931 Revision 4 | 12 May 2016 | Section 5.1.2: Green M replaced by Supplementary metrology marking, postal address added. References to 2009/23/EC replaced by 2014/31/EU. |
| UK 2931 Revision 5 | 23 June 2016 | Editorial change to Figure 5 |
| UK 2931 Revision 6 | 25 June 2018 | Addition of Section 7.3. |



Figure 1 3590E family of indicators



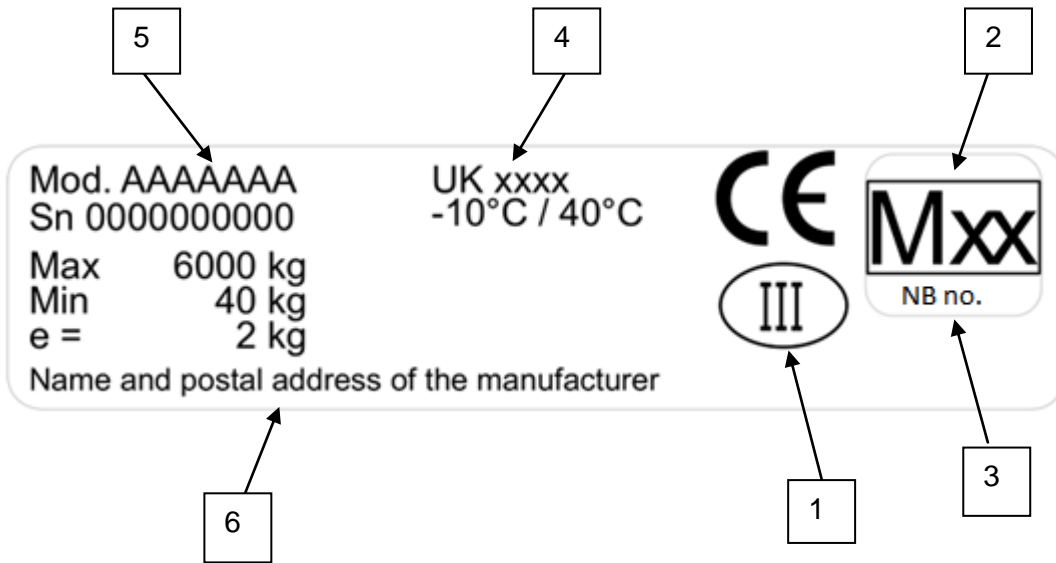
Figure 2 CPWE family of indicators



Figure 3 DFW family of indicators



Figure 4 DGT family of indicators

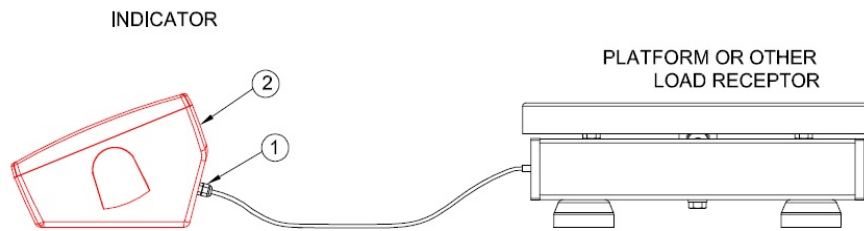


1. Accuracy class
2. Rectangle containing last 2 digits of the year of affixing CE mark (XX)
3. Number of notified body
4. TEC number
5. Indicator model
6. Name of the manufacturer and postal address

N.B.: the marks used are the type ultra destructive label.

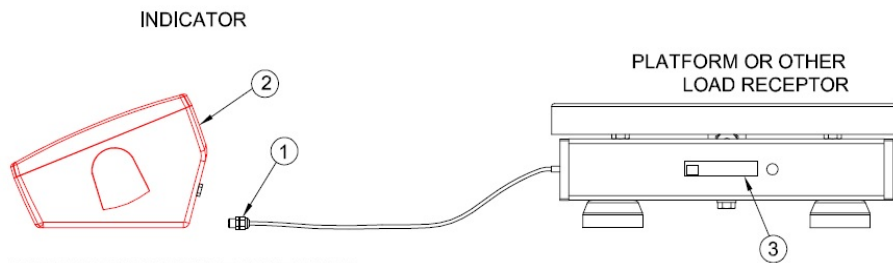
Figure 5 Example of legal markings

A) CONSTRAINED CONNECTIONS

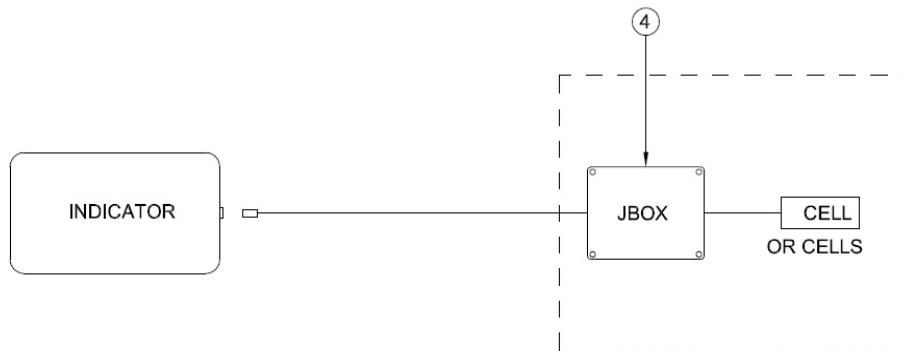


- ① CONNECTION WITH COSTRAINT
- ② LEGISLATION LABEL AND PROTECTION SEAL ON THE INDICATOR

B) UNCONSTRAINED CONNECTION



- ① CONNECTION WITHOUT COSTRAINT
- ② LEGISLATION LABEL AND PROTECTION SEAL ON THE INDICATOR
- ③ LABEL WITH IDENTIFYNG MARK IF THE LINKED INDICATOR
- ④ EVENTUAL CONSTRAINED JUNCTION OR DISTRIBUTION BOX



WITHOUT JBOX THE LOAD CELL WILL BE COSTRAINED TO LOAD RECEPTOR

Figure 6 Examples of connections between indicators and load cells

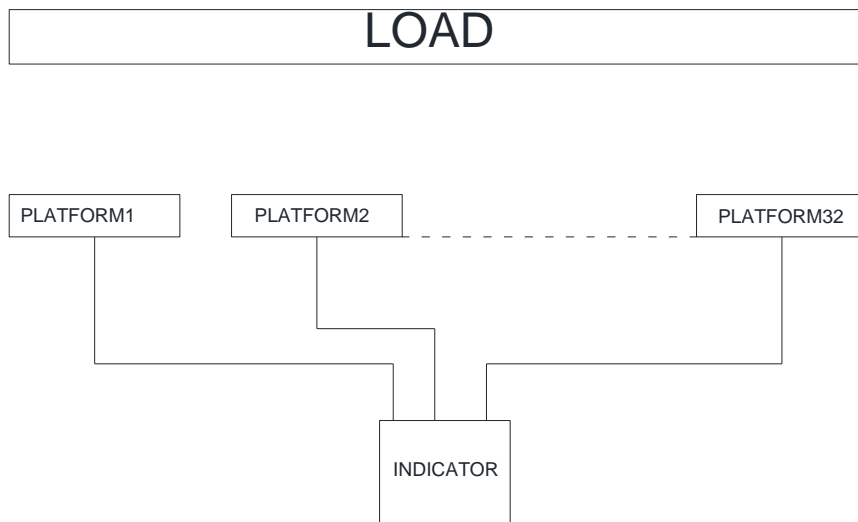
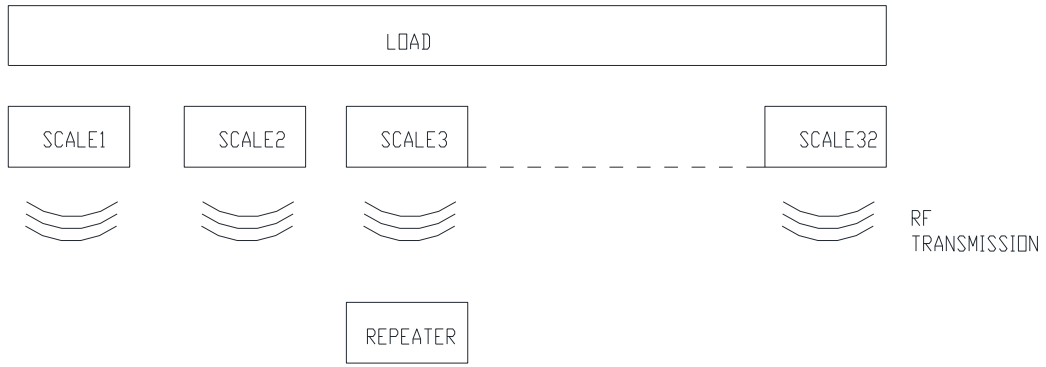


Figure 7 Examples of Combined multi-platform weighing system