

**OIML Member State**

United Kingdom of Great Britain
and Northern Ireland

OIML Certificate No.
R76/2006-A-GB1-19.05

OIML CERTIFICATE ISSUED UNDER SCHEME A

OIML Issuing Authority **NMO**
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United Kingdom

Person responsible: **Mannie Panesar – Head of Technical Services**

Applicant **Dini Argeo S.r.l.**
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Manufacturer **The applicant**

Identification of the certified type **3590E, CPWE, DFW and DGT Series**
(the detailed characteristics are defined in the Descriptive Annex)

This OIML Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML type evaluation report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML R76 Edition: 2006

For accuracy class: III and IIII

Issue date: 05 February 2019

The OIML Issuing Authority

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

This OIML Certificate relates only to metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML Recommendation identified above.

This OIML Certificate does not bestow any form of legal international approval.

The conformity was established by the results of tests and examinations provided in the associated OIML type evaluation report:

No. P02483 dated 05 February 2019 that includes 17 pages

The technical documentation relating to the identified type is contained in documentation file:

No. P02483-D dated 05 February 2019

OIML Certificate History

Revision No.	Date	Description of the modification
0	05 February 2019	OIML Certificate first issued.
-	-	-

No revisions have been issued.

Important note:

Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate is issued, partial quotation of the Certificate and of the associated OIML type evaluation report(s) is not permitted, although either may be reproduced in full.

DESCRIPTIVE ANNEX

Characteristics of the instrument:

The family of weight indicating devices is designed to be connected to a load receptor to form a Class III or IIII, Non-automatic Weighing Instrument. These instruments may be fitted with a built-in printer and WiFi connectivity (optional). These instruments can be configured with single-interval, multi-interval, or multi-range weighing options, an external or internal AC mains adapter, and an internal rechargeable battery.

The instruments are not designed for direct sales to the public.

Construction

The above named indicators have the following features:

- ABS plastic or stainless steel enclosure
- LCD, LED or touchscreen display
- Functions keys
- Connections and ports located at the back

The indicator construction is dependent on the model number; the designation follows the following format: "Family"+"suffix":

Family: 3590E, CPWE, DFW, DGT series

Suffix: being alphanumeric characters used to identify different variants.

The variants include various keypads (5 to 59 keys), functional waterproof keypad, number of weighing channels, ABS, painted steel or stainless steel case in different sizes, communication ports, devices (see Section Devices) and permitted interfaces (see Section Interfaces).

Devices:

- Initial zero setting device ($\leq 20\%$ of Max)
- Semi-automatic zero setting ($\leq 4\%$ Max)
- Zero tracking ($\leq 4\%$ Max)
- Semi-automatic subtractive tare weighing
- Pre-set tare
- Recall of Gross indication when tare is active
- Determination of stability of equilibrium
- Indication of stability of equilibrium
- Multi-range and multi-interval function
- Checking of display
- Printing
- Alibi storage device
- Gravity compensation
- Checkweighing
- Real time clock
- Counting
- Command via external device (PC)
- Accumulation
- Battery level indicator
- Remote control
- LCD or LED

- Peak Hold
- Gross, Net, Tare, Preset tare, Print, Zero, Motion, Accumulation, Over/Under weight and Network indicators

Technical characteristics:

Power supply	3590E Series: 6V battery, 8-24 V DC, External/Internal 110-240 V AC 50/60 Hz
	CPWE Series: 6V battery, 8-24 V DC
	DGT Series: 6V battery, 12-24 V DC, External/Internal 110-240 V AC 50/60 Hz
	DFW Series: 6V battery, 12 V DC, External/Internal 110-240 V AC 50/60 Hz
Maximum number of scale intervals	10 000
Load cell excitation voltage	5 V DC
Minimum load cell impedance	20 Ω
Maximum load cell impedance	10 k Ω
Minimum input voltage per verification scale interval	0.3 μ V/div
Measuring range minimum voltage	0 mV
Measuring range maximum voltage	30 mV
Fraction of maximum permissible error	$P_{ind} = 0.5$ ($P_{ind} = 0$ for digital load cells) ($P_{ind} = 0$ for analogues load cells with junction box)
Operating temperature range	-10 / + 40 $^{\circ}$ C
Load cell connection	4 or 6 wire
Maximum Load cell cable length (junction box to indicator)	200 m/mm 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) issued for the load cell.
- The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules, and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to R76 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 at the time of verification.
- The load cell transmission conforms to a standard type.

Software:

The software is held on the Flash Memory and cannot be modified by the user. The calibration and legally relevant parameters are protected via physical or software means. A jumper located on the main board prevents all access to the legally relevant parameters. Alternatively, software sealing may be used to protect the calibration and legally relevant parameters. Two non-editable counters, designated CAL and CONFIG, are incremented each time the calibration and legally relevant parameters respectively are modified, with access to these parameters being password-protected. The counters' values and designations must be written on a tamper-evident label on or near the rating plate.

The software identification is fully described in the user manual, and can be displayed at power up or via the software menu.

The legally relevant software is identified by two parts: **prefix/version**.

The **prefix** shows the instrument model and shall be, for example:

3590E: 01, CPWE: 01, DFW: 02, DGT: 09

The **version** shows the legally relevant software version shall be 01 for all series.

The **prefix/version** may be followed by a suffix indicating the software program version and other options installed which may be freely modified and is regarded as the non-legally relevant software.

Since the code may be longer than the digits available on the display, it is shown in two parts.

The programming and calibration of the instrument may be done through the keyboard of the indicator module if a specific jumper inside the indicator on the CPU board has been activated. Once the function has been enabled one accesses the general set-up menu where steps are shown on the display to help guide the operator. The calibration data is stored in a non-volatile manner in the FLASH memory and is protected by a checksum which ascertain the integrity; in case of error the instrument's functioning is blocked. If an indicator repeater is remotely connected, the programming and calibration function is only possible on the main indicator.

Interfaces

The instrument may have the following protected interfaces:

- 4 or 6 wire load cell connection
- DC voltage input
- RS-232
- RS-485
- Control inputs/outputs
- USB
- Ethernet
- Ethernet IP
- Bluetooth
- Optoisolated inputs
- Photomosfet outputs
- SENSOR (Digital in)
- RF (radio frequency)
- WiFi
- Anologue ouput and input
- Profibus
- Profinet
- DeviceNet
- CANopen
- Ethercat

Sealing:

The software is held on the Flash Memory and cannot be modified by the user. The calibration

and legally relevant parameters are protected via physical or software means.

A jumper located on the main board prevents all access to the legally relevant parameters.

Alternatively, software sealing may be used to protect the calibration and legally relevant parameters. Two non-editable counters, designated CAL and CONFIG, are incremented each time the calibration and legally relevant parameters respectively are modified, with access to these parameters being password-protected. The counters' values and designations must be written on a tamper-evident label on or near the rating plate.

Access to the electronics and lod cell connection(s) are prevented by mechanical sealings.

Alternatives:

Having the following set of peripheral devices "printers" which can be used in conjunction with any of the approved indicators covered by this Certificate. The peripheral devices can be connected via the radio-frequency (RF) interfaces or through a serial port.

- DP24, DP24S1N, DP190.
- LP542, LP542S, LP542Plus, LP842Plus, LP942Plus, LP1042Plus (also called LPxx).
- TDP248M, TDP643Plus, TDP245, TTP244MEPlus, TT246MPlus (also called SMTxx).
- TM295, LX300, LX350.
- TG2460H.
- CUSTOM PLUS or TPR.
- DATAMAX: DMXM4206 e EX2.
- PR80 (alternative designation PRINT).

Having a modified instrument, designated the KS series.

Having a modified 3590E instrument, with stainless steel case and graphic touch.

Having a modified CPWE instrument, with stainless steel case.

Having the indicator connected via RS485 to a secondary display, designated the GLR100. The secondary display repeats the weighing result and any other primary indication, and provides further, non-metrological information.

Having the indicator connected to a compatible Non-automatic Weighing Instrument via RS232, RS485 or USB. The indicator shall be located in proximity of the NAWI to ensure the weighing platform is visible to the operator. The indicator must be configured with the same metrological characteristics as the NAWI and be sealed as described in Sealing section. The Alibi memory function on the indicator can only be used if the identification of the connected NAWI is recorded as part of the measurement data. This configuration shall not be used for direct sales to the public. The following functions of this indicator shall be disabled:

- Pre-set tare
- Peak Hold
- Gravity compensation