

Member State of OIML
United Kingdom of Great Britain
and Northern Ireland

OIML Certificate No
R76/2006-GB1-12.14
Revision 2

OIML CERTIFICATE OF CONFORMITY

Issuing authority: **National Measurement Office**

Person responsible: **Paul Dixon – Product Certification Manager**

Applicant: **Società Cooperativa Bilanciali a.r.l.
Via S. Ferrari No 16
41011 Campogalliano
Modena
Italy**

Manufacturer: **The applicant**

Identification of the certified pattern: **DD1010, DD1010IC, DD1010I,
DD1010H, DD1010ICH, DD1010IH**

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report) with the requirements of the following Recommendation of the International Organisation of Legal Metrology (OIML):

OIML R 76 - Edition 2006(E) for accuracy class: [III] and [IIII]

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation.

This certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the certificates reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated test report is not permitted, though they may be reproduced in full.

This revision replaces earlier versions of the certificate.

Issue Date: 20 March 2014
Reference No: TS1201/0048



Signatory: G Stones

The conformity was established by tests described in the associated pattern evaluation report P01256 which includes 13 pages.

Characteristics of the instrument:

Characteristics:

The indicating devices are designated the DD1010, DD1010I, DD1010IC, DD1010H, DD1010IH, and DD1010ICH indicators. The indicators are self-indicating, mains or DC-powered, and are designed to be used as part of a Class III or IIII, non-automatic weighing instrument.

Main features (desktop and wall-mounted versions):

DD1010:

- ABS enclosure
- 5.7" graphic LCD display
- A/D conversion module 5 VDC (up to 2)
- Main board with processor

DD1010H:

- ABS enclosure
- 5.7" graphic LCD display
- A/D conversion module 10 VDC (up to 2)
- Main board with processor

DD1010I:

- Stainless steel enclosure with cable glands
- 5.7" graphic LCD display
- A/D conversion module 5 VDC (up to 2)
- Main board with processor
- Internal main power supply

DD1010IH:

- Stainless steel enclosure with cable glands
- 5.7" graphic LCD display
- A/D conversion module 10 VDC (up to 2)
- Main board with processor
- Internal main power supply

DD1010IC:

- Stainless steel enclosure with connectors
- 5.7" graphic LCD display
- A/D conversion module 5 VDC (up to 2)
- Main board with processor

DD1010ICH:

- Stainless steel enclosure with connectors
- 5.7" graphic LCD display
- A/D conversion module 10 VDC (up to 2)
- Main board with processor

Devices:

- Initial zero setting
- Semi-automatic zero setting
- Zero tracking
- Automatic zero setting (negative load indications for more than 5 s)
- Semi-automatic subtractive tare weighing
- Determination of stability of equilibrium
- Indication of stability of equilibrium
- Zero indicator
- Preset tare
- MPP Alibi storage device
- Up to 2 load receptors
- Load receptors summation
- "Weighbridge modes":
 - AdR (or RDA): stores vehicle information except weights IN and OUT
 - RcD: unknown vehicles, stores weight IN until weight OUT captured, record then deleted
 - RpD (or RCP): stores vehicle information including weight IN
- Identification and recognition of the weighing board(s): the instrument records the A/D Converter unique identification number for each weighing channel, a new calibration is required if that number is not recognised at power up
- Identification and recognition of the digital load cells and junction box type DILINK: the instrument records the unique S/N of each digital load cell and/or the A/D Converter unique identification number of DILINK junction box for each weighing channel, a new calibration is required if these numbers are not recognised at power up
- Weight data transmission in open networks or wireless transmission in protected mode utilising protocols complying with Welmec 7.2 (encrypted transmission of weight data to a remote indicator).The load receptor and the indicator displaying the weighing result must be simultaneously visible to the operator (directly or indirectly) in this configuration.
- Optional connection to an external PC and subsequent printing of measurement data from the PC using the data from the MPP Alibi storage device on the indicator
- Optional connection to an external PC allowing printing of measurement data stored on an external PC using the data from the MPP Alibi storage device on the indicator
- Connection to digital load cells type CPD-M
- Connection to smart junction box type DILINK

Interfaces:

- Load cell 6-wire shielded connection (analogue/digital)
- RS232/422/485
- Ethernet
- Wi-Fi communication on core module (internal antenna)
- 0-10 V / 0-20 mA analogue input/output
- Digital I/O
- Field bus (Profibus...)
- USB host
- SD Card
- Audio

Technical data:

Power supply	110 – 240 VAC, 50 / 60 Hz 12 VDC
Maximum number of scale intervals	6000 for single interval, Class III 4000 for multi-interval/range (2 partial ranges), Class III 3000 for multi-interval/range (3 partial ranges), Class III 1000 for single and multi-interval/range (2 and 3 partial ranges), Class III
Maximum tare	- Max
Maximum Preset Tare	- Max (single and multi-range) - Max ₁ (multi-interval)
Load cell excitation voltage Models DD1010, DD1010I, DD1010IC	4.5-5 VDC (10-18 VDC for digital load cells)
Load cell excitation voltage Models DD1010H, DD1010IH, DD1010ICH	9-10 VDC (10-18 VDC for digital load cells)
Minimum load cell impedance	29 Ω (per weighing module)
Maximum load cell impedance	1100 Ω
Minimum input voltage per scale interval Model DD1010, DD1010I, DD1010IC	0.5 μV
Minimum input voltage per scale interval Model DD1010H, DD1010IH, DD1010ICH	0.6 μV
Measuring range minimum voltage	0 mV
Measuring range maximum voltage	27-30 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 DILINK)
Operating temperature range	-10°C / +40°C
Load cell connection (analogue load cells) Models DD1010H, DD1010IH, DD1010ICH	6-wire shielded Max length 3,358 m/mm ²
Load cell connection (analogue load cells) Models DD1010, DD1010I, DD1010IC	6-wire shielded Max length 15,162 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.

Digital load cells type CPD-M and junction box type DILINK may be connected to the indicator.

Sealing (physical or software means):

- Physical sealing: access to the calibration and metrological configuration is only possible via a protected switch located on the instrument.
- Software sealing: access to the calibration and metrological configuration shall be password protected, with any change to the calibration and metrological parameters incrementing a non-resettable counter. The counter is designated “SW seal counter” and can be displayed via the software menus. Changes are also logged on the instrument and can be viewed by the user.

Alternatives:

- Having the instrument fitted with a TTL 5V interface type, in which case the instrument shall not be fitted with an analogue load cell connection port.
- Having a modified construction, designated the Rack version.

Certificate History

ISSUE NO.	DATE	DESCRIPTION
R76/2006-GB1-12.14	19 December 2012	Certificate first issued
R76/2006-GB1-12.14 rev 1	02 May 2013	Cable length modified in technical data table.
R76/2006-GB1-12.14 rev 2	20 March 2014	Alternatives section added.