

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

OIML Certificate No
R51/2006-GB1-17.04
Revision 1

OIML CERTIFICATE OF CONFORMITY

Issuing authority: **NMO**
Person responsible: **Mannie Panesar – Head of Technical Services**
Applicant: **Ishida Europe Ltd
11 Kettles Wood Drive
Woodgate Business Park
Birmingham, B32 3DB
United Kingdom**
Manufacturer: **The applicant**
Identification of the certified pattern: **DACS-GN-SE012 and DACS-GN-SE050**

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 R51 - Edition 2006(E) for accuracy class: XIII(1)

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 previous versions of the certificate.

Issue Date: **27 November 2017**



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



0135

The conformity was established by testing and examinations described in the associated Evaluation Report P02028 which includes 13 pages.

Characteristics of the instrument:

This family of mains-powered, single-range, automatic weighing instruments is designated the DACS-GN-SE012 and DACS-GN-SE050 Series, the instruments operate as automatic checkweighers (Category X).

The instruments comprise a cabinet, user interface, in-feed and out-feed conveyors, weighing unit with weigh conveyor, printer (optional), mechanical handling facilities and reject device (optional). The instruments are designed to weigh packs dynamically.

The models are designated DACS-GN-SE012-xx/xx-x-x and DACS-GN-SE050-xx/xx-x-x, with x reflecting the various configurations.

Construction:

The instruments are constructed in stainless steel. The framework is a fabricated floor standing stainless steel frame on adjustable feet. On the frame are mounted the conveyors (in-feed, weigh and out-feed). The conveyors' type and size are not restricted.

The control cabinet is located behind of the conveyors and houses the electrical hardware. An enclosure located below the weigh conveyor houses the AD. The Remote Control Unit is mounted in the upper part of the control cabinet. Photocells mounted on the frame are used for pack detection. A printer is located on the side of the cabinet (optional).

Weighing unit:

The weighing device comprises a strain gauge load cell located below the centre of the weigh conveyor.

DACS-GN-SE012 Series: Ishida Japan load cell type TLC-9LT, $E_{\max} = 9 \text{ kg}$

DACS-GN-SE050 Series: Ishida Japan load cell type TLC-60LT, $E_{\max} = 60 \text{ kg}$

Alternatively, any compatible load cell 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.
- It is not a load cell with digital output
- The characteristics of the replacement load cell such as n_{lc} , Y, Z are the same or better than the load cell tested dynamically (TLC-9LT, $E_{\max} = 9 \text{ kg}$)
- The design of the load cells and the material are the same
- No oil damper is used

Packs are weighed as they pass over the weigh head conveyor which runs continuously at the speed of the in-feed and out-feed conveyors.

Electrical:

The weighing controller comprises the A/D converter located on the weigh board, and processes the load cell signal. The controller send the processed weigh signal and photo cell unit signal the DRV board which controls the infeed/outfeed conveyors.

The instruments are fitted with an RCU, comprising an LED display, function and numerical keys.

Devices:

The instrument is provided with the following devices:

- Semi-automatic zero-setting device ($\leq 4\%$ Max)
- Automatic zero-setting devices ($\leq 4\%$ Max)
 - o Every 75 min
 - o When no pack has been detected
- Initial zero-setting ($\leq 20\%$ Max)
- Zero-tracking
- Determination of stability of equilibrium
- Preset tare device
- Static calibration (not available to the user)
- Dynamic calibration (available to the user, recorded)
- Belt speed set up (available to the user, not greater than max)
- Dynamic setting (available to the user, range = $\pm 20\%$ of nominal weight)
- Events log
- Printing of batch data
- Display check at power up
- e/10 resolution for testing purposes (not available to the user)
- Extended indicating device with e/10 resolution (d) available for up to 5 s upon command (available to the user)

Technical data:

Model	DACS-GN-SE012	DACS-GN-SE050
Maximum capacity (Max):	1250 g	5000 g
Minimum capacity (Min):	8 g	32 g
Scale interval (e =):	0.5 g	2 g
Maximum number of scale intervals (n):	2500	2500
Preset-tare (PT):	PT \leq Max	PT \leq Max
Belt speed:	8 - 35 g: 50 m/min 35 - 1250 g: 90 m/min	32 - 140 g: 50 m/min 140 - 5000 g: 90 m/min
Climatic environment:	-5 °C to +40 °C	
Electromagnetic environments	E1 and E2, Non-condensing (closed)	
Power supply	220 - 240 V A.C. 50/60Hz	
Accuracy class	XIII(1)	

Software:

Software is separated over three boards: The ADC board filters and converts load cell signals, this software is fixed and will not be modified. The DRV board further processes weight values, carries out span adjustments etc. The MCU carries out all further processing including setting limit definitions, recording batch data etc.

The legally relevant software shall be as follows:

ADC SW Version Number: N52001B
MCU/DRV Checksum (WM-CHK): 5B3A-6548

The checksum, (WM-CHK) 5B3A – 6548, is split into 2 parts, where 5B3A is the checksum of the MCU separated software, and 6548 is the checksum of the separated software on the DRV.

This information can be displayed by navigating: Setup > System > Program version information.

The number of times span adjustment is carried out and date of adjustment is displayed on available record. This counter is non-resettable.

The span adjustment count can be displayed by navigating to: Setup > System > View Span Data.

Every time dynamic calibration is altered, the “dynamic calibration coefficient” and “dynamic calibration date-stamp” is incremented. If any product specific parameters are changed, the dynamic calibration will be lost.

The dynamic calibration coefficient and date-stamp are included on all batch data and can be displayed by navigating to Setup > Preset > View Dynamic Calibration Data.

Interfaces:

- Ethernet
- RS232
- Relay signal
- USB (for extraction of stored data onto memory stick only)

Sealing:

The load cell is secured via tamper evident sticker across the load cell fixing cap head screws, the load cell serial number will be written on the tamper evident sticker.

Access to the ADC board is prevented via a tamper evident label across a seam of the ADC board cover.

Alternatives:

The instrument may be fitted internally with a single board computer connected to an approved interface and using its own power supply.

CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
R51/2006-GB1-17.04	10 July 2017	Certificate first issued.
R51/2006-GB1-17.04 Revision 1	27 November 2017	Printer and reject device noted as "optional" under Characteristics and Construction. Compatibility of load cell wording amended. Added the optional single board computer to Alternatives