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

OIML Certificate No
R51/2006-GB1-14.04
Revision 3

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-G-S015 and DACS-G-S060 Series**

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 October 2017**

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

UKAS PRODUCT CERTIFICATION
0135

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The conformity was established by testing and examinations described in the associated Evaluation Report P01265 which includes 13 pages.

Characteristics of the instrument:

This family of mains-powered, dual-range, automatic weighing instruments is designated the DACS-G-S015 and DACS-G-S060 Series, the instruments operate as automatic checkweighers (Category X).

The models are designated DACS-G-S015-xx/xx-xx-x and DACS-G-S060-xx/xx-xx-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, including the ADC board and the Dip-Switches protecting the legally-relevant parameters. 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 control cabinet.

Weighing unit:

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

DACS-G-S015 Series: Ishida Japan load cell type QLC-12L, E_{max} = 12 kg
DACS-G-S060 Series: Ishida Japan load cell type QLC-60L, E_{max} = 60 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.
- It is not a load cell with digital output
- The characteristics of the replacement load cell such as nlc, Y, Z are the same or better than the load cell tested dynamically (QLC-12L, E_{max} = 12 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 a jog-dial RCU comprising an LED display, function and numerical keys, jog-dial.

Devices:

- Semi-automatic zero-setting device (≤ 4% Max)
- Automatic zero-setting devices (≤ 4% Max)
  - Every 26 min (Range 1) or 65 min (Range2)
  - When no pack has been detected
- Initial zero-setting (≤ 20% Max)
- 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)
- Dynamic setting (available to the user, range +/ 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)
- e/10 resolution (d) available for up to 5s upon command (available to the user)

Technical data:

DACS-G-S015 Series:

Range	Range 1 (High Precision)	Range 2 (Standard)	
Maximum capacity (Max):	600 g	1500 g	2500 g
Minimum capacity (Min):	8.2 g	35 g	
Scale interval (e =):	0.2 g	0.5 g	
Maximum number of scale intervals (n):	3000		5000
Preset Tare (PT):	≤ Max		
Belt speed:	8.2 - 15 g: 35 m/min 15 - 30 g: 60 m/min 30 - 600 g: 100 m/min	100 m/min	
Climatic environment	-5 °C to +40 °C		
	Non-condensing (closed)		
Electromagnetic environments	E1 and E2		
Power supply	240 Va.c. 50 Hz		
Accuracy class	XIII(1)		

DACS-G-S060 Series:

Range	Range 1 (High Precision)	Range 2 (Standard)
Maximum capacity (Max):	3000 g	6000 g
Minimum capacity (Min):	125 g	350 g
Scale interval (e =):	1 g	2 g
Maximum number of scale intervals (n):	3000	
Preset Tare (PT):	≤ Max	
Belt speed:	125 - 500 g: 60 m/min 500 - 3000 g: 100 m/min	
Climatic environment	-5 °C to +40 °C	
	Non-condensing (closed)	
Electromagnetic environments	E1 and E2	
Power supply	240 Va.c. 50 Hz	
Accuracy class	XIII(1)	

Interfaces:

- Ethernet
- USB (for extraction of stored data only)

Sealings:

The load cell and dip-switches (on the ADC or MCU board) are sealed via a tamper-evident solution.

Software:

The legally relevant software shall be as follows:

ADC Version number (ADC):	N-51002D or N-51002F
MCU Checksum (WM-CHK):	DA06-YYYY

Or (DACS-G-S015, Max = 2500 g and MCU sealing method):

ADC Version number (ADC):	N-51002E or N-51002F
MCU Checksum (WM-CHK):	C131-YYYY

Alternatives:

The jog-dial RCU may be replaced by a colour touch screen RCU.
The USB port may in this case be used for the connection of a remote device.
The legally relevant software shall be as follows:

ADC Version number (ADC1):	N-51002F
MCU Checksum (W&M - Check Sum):	DA06-YYYY
RCU Checksum (W&M - RCU Check Sum):	9A794819

Or:

ADC Version number (ADC1):	N-51002F
MCU Checksum (W&M - Check Sum):	C131-YYYY
RCU Checksum (W&M - RCU Check Sum):	9A794819

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

The instrument may be provided without a printer if the measurement data is stored on a data storage device.

The instrument may have alternative MCU software. The software information is as follows:

MCU Checksum (W&M - Check Sum): 0548-YYYY

Or: MCU Checksum (W&M - Check Sum): F48E-YYYY

All other software information remains unchanged.

CERTIFICATE HISTORY

ISSUE NO.	**DATE**	**DESCRIPTION**
R51/2006-GB1-14.04	19 September 2014	OIML certificate first issued.
R51/2006-GB1-14.04 Rev 1	09 July 2015	e/10 resolution modes added to the devices section. Max = 2500 g added to the technical data for the DACS-G-S015 Series. MCU Checksum corrected (from E0E1-YYYY). Alternative software verification information added. MCU dip-switch sealing method added.
R51/2006-GB1-14.04 Rev 2	25 February 2016	N-51002F added to the Software section. Alternatives section added.
R51/2006-GB1-14.04 Rev 3	27 October 2017	Preset Tare limits corrected (≤ Max) under Technical Data. Removed MCU software (e-prepackaged) version number (W&M-ID) from Technical Data and Alternatives. Added the optional single board computer to Alternatives. Added option to replace printer with data storage device to Alternatives. MCU checksums 0548-YYYY and F48E-YYYY added to Alternatives.