National Measurement Office Certification

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

OIML Certificate No
R51/2006-GB1-09.04
Revision 2

OIML CERTIFICATE OF CONFORMITY

Issuing authority:	**National Measurement Office**
Person responsible:	**Paul Dixon – Product Certification Manager**
Applicant:	**Thermo Ramsey Italia S.R.L.** **Strada Rivoltana km 6/7 Rodano (MI)** **20090** **Italy**
Manufacturer:	**The applicant**
Identification of the certified pattern:	**VersaWeigh, VersaGP, Versa RxC, Versa RxM and Teorema Checkweighers**

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 51 - 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.

This revision replaces previous versions of the certificate.

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.

Issue Date: **28 July 2014**
Reference No: **T1108/0053**

Signatory: **P R Dixon**
for **Chief Executive**

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National Measurement Office

The conformity was established by tests and examination described in the associated pattern evaluation report P01088 which includes 12 pages.

Characteristics of the instrument:

Mains-powered automatic checkweighing instrument designated the VersaWeigh, VersaGP, Versa RxC, Versa RxM and Teorema Checkweighers**,** which operate as automatic checkweighers (Category X).

Technical data:

Maximum capacity (Max):	1 200 g	2 400 g	48 00 g	12 000 g	24 000 g	48 000 g
Minimum capacity (Min):	35 g	70 g	140 g	350 g	700 g	1400 g
Scale interval (e =):	≥ 0.5 g	≥ 1 g	≥ 2 g	≥ 5 g	≥ 10 g	≥ 20 g
Maximum number of scale intervals (n):	2400					
Load cell E_{max}:	10 kg	20 kg	30 kg	100 kg	100 or 200 kg	100 or 300 kg
Tare (T):	- 500 e (single-range instruments) - 500 e_1 (multi-range instruments)					
Belt speed:	1.2 m/s					
Climatic environment	0°C to +40 °C					
	Non-condensing (closed)					
Power supply	115 - 250 Va.c. 50 Hz					
Accuracy class	XIII(1)					

Other E_{max} values may be chosen provided the sensitivity is greater than 1 µV/e.

Load cell:

The load cell type may be as follows: Tedea Huntleigh 1042 or 1250 C3, capacity according to above table.

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.
- 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 that the load cell tested dynamically (Tedea 1042 C3, capacity 10 kg)
- The design of the load cells and the material are the same
- No oil damper is used

Interfaces:

- RS 232
- USB

- Ethernet
- Parallel

Devices:

- Initial zero-setting
- Zero-tracking
- Automatic alarm device active during automatic operation (requests a zero setting at least every 11 min)
- Pre-set tare device (subtractive)
- Multi-range operation
- Static calibration not accessible to the user
- Dynamic calibration accessible to the user and recorded
- Internal memory for storage of batch reports
- Device that acts upon significant faults
- Screen check at power-up

Software:

The general software is designated V312 Version 37.00.01.xx, the legally relevant module is designated MID Module. These software designations are shown in Menu \ Tools \ Versions and can also be displayed at any time upon command. The software is held in the Weigh Engine and partially on the HMI, and can only be changed at factory level via Ethernet.

The version number is designated 37.00.01.xx, with:

37: Standard Versa software
Following 2 digits (00): Custom made version
Following 2 digits (01): Major release
Last 2 digits (x) is Minor release (not legally relevant)

Alternatives:

- Having the instrument designated the VersaGP of a different construction: the instrument has an integrated frame and supports of adjustable height on the side of the cabinet, on which the conveyors and weigh platform are mounted.

- Having the instrument using the Slack Conveyor, non-powered weighing system, having a belt or chain or similar carrier sliding across the weighing plate using an aligned in-feed and out-feed dead plate. This weighing sytem may be used with the Versa Weigh and Versa GP constructions.

  The load cell type may be as follows: Vishay Celtron LPS, capacity according to table below.

  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.
  - 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 that the load cell tested dynamically (Vishay Celtron LPS, capacity 2 kg)
- The design of the load cells and the material are the same
- No oil damper is used

The instruments have the following technical characteristics.

Maximum capacity (Max) (g):	300	300	300	600	1500
Minimum capacity (Min):	4.5 g	10 g	10 g	20 g	50 g
Scale interval (e =):	≥ 0.1 g	≥ 0.2 g	≥ 0.5 g	≥ 0.2 g	≥ 0.5 g
Load cell E_{max}:	2 kg	2 kg, 3 kg	2 to 10 kg	3 kg	10 kg

Maximum capacity (Max):	3000 g	6000 g	15000 g
Minimum capacity (Min):	100 g	200 g	500 g
Scale interval (e =):	≥ 1 g	≥ 2 g	≥ 5 g
Load cell E_{max}:	20 kg	35 kg	100 kg

Other E_{max} values may be chosen provided the sensitivity is greater than 1 µV/e.

Maximum number of scale intervals (n):	3000
Tare (T):	T ≤ 30 % Gross for Gross ≤ 500e T ≤ 50% Gross for 500e < Gross ≤ 3000e for speed ≤ 1.8 m/s T ≤ 15% Gross for 500e < Gross ≤ 2000e for speed ≥ 1.8 m/s T ≤ 50% Gross for 2000e < Gross ≤ 3000e (with e_1 replacing e for multi-range instruments)
Climatic environment	0°C to +40 °C
	Non-condensing (closed)
Electromagnetic environments	E1 and E2
Power supply	115 - 230 Va.c. 50/60 Hz
Accuracy class	XIII(1)

Number of scale interval	Maximum conveyor speed
Min - 100	1.6 m/s
100 – 2000	2.0 m/s
2000 - 3000	1.6 m/s

– Having a modified construction. The instrument is constructed in stainless steel and part of an integrated self-carrying cabinet on adjustable feet, with a see through door.

The model Versa RxC uses this construction with the standard weighing system.

The models Versa RxM and Versa Chain use this construction with the Slack Conveyor weighing system.

Software alternative:

Having modified software, designated V312 Version 2.0. The version number is displayed in the Weigh menu 'Run Screen'. The software is held in the Weigh Engine and partially on the HMI, and can only be changed at factory level via Ethernet.

The available versions are:

V312 2.0 (37.00.02.xx): Standard version as Software section, with selectable options or settings for:

- Multi-Lane applications
- Intermittent Checkweigher (Static-Weigh) applications (static weighing, restricted to Slack Conveyor weighing systems, and to maximum capacities ≤ 1500 g
- Data Matrix applications
- OEM applications
- Teorema applications

V312 2.0: Dedicated version for:

- Tare/Gross applications (39.00.01.xx)
- Multiproduct applications (41. 00.01.xx)
- Twin application (42. 00.01.xx)

The legally relevant part in the HMI is identified in three software modules:

Designation	Version number	Checksum
MIDModule.dll	100.0.2.0	4000DE8A
DataProcessing.dll	32.0.2.0	4000DE8A
VW_Controls.dll	35.0.2.0	4000DE8A

Having the instrument running an e-mark control and registration software.

Teorema:

The conveyor is supported by fabricated floor standing steel frame on adjustable feet, and comprises the infeed section (chain, slider bed or any other type) driven by motor(s), adjustable pack guides and electrical cabinet. The conveyor is connected to the main electrical cabinet via a conduit.

The weigh unit is supported by a steel block on adjustable feet. It comprises the strain gauge load cell, infeed plates or skates, weigh plates or skates and sensors for pack detection. The load cell is connected to the remote electrical cabinet, using a metal conduit.

The load cell type may be as follows: Tedea Huntleigh 1130 C3, capacity according to section below.

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.
- 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 that the load cell tested dynamically (Tedea Huntleigh 1130 C3, capacity 30 kg)
- The design of the load cells and the material are the same
- No oil damper is used

The remote control cabinet houses the electrical hardware (identical to VersaWeigh), including the control and display unit (HMI).

The instruments have the following technical characteristics.

Maximum capacity (Max):	800 g	1600 g	3200 g
Minimum capacity (Min):	42 g	84 g	168 g
Scale interval (e =):	≥ 0.5 g (42 to 125 g) ≥ 1 g (125 to 250 g) ≥ 2 g (250 to 800 g)	≥ 1 g (84 to 250 g) ≥ 2 g (250 to 500 g) ≥ 5 g (500 to 1600 g)	≥ 2 g (168 to 500 g) ≥ 5 g (500 to 1000 g) ≥ 10 g (1000 to 3200 g)
Load cell E_{max}:	30 kg	50 kg	100 kg

Other E_{max} values may be chosen provided the sensitivity is greater than 0.33 μV/div.

Maximum number of scale intervals (n):	1600
Tare (T):	T ≤ 30 % Gross
Climatic environment	5°C to +40 °C
	Non-condensing (closed)
Electromagnetic environments	E1 and E2
Power supply	230 Va.c. 50/60 Hz
Accuracy class	XIII(1)

Weighing range	Maximum conveyor speed
W1	1.6 m/s
W2	2.6 m/s
W3	2.6 m/s

The frequency of automatic zero-setting is 7 min 25 s.

The software is as described in the certificate.

The interfaces and peripheral devices are as described the certificate.

Derived alternatives:

The combination of the Teorema load cells in the above table and Weighing engine may be used in the VersaWeigh, Versa GP and Versa Rx constructions, provided the E_{max} value for the load cell is such that the sensitivity is equal to or greater than 1 μV/div.

Remote cabinets:

Having the VersaWeigh and Versa GP instruments fitted with remote cabinets, provided the load cell is connected to the cabinet using a metal conduit.

CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
R51/2006-GB1-09.04	22 July 2009	Certificate first issued.
R51/2006-GB1-09.04 revision 1	25 January 2012	Versa GP, Versa RxC and Versa RxM models added. Software options added.
R51/2006-GB1-09.04 revision 2	28 July 2014	Software section added, software options section replaced by Alternative software section. Teorema instrument and Derived alternative sections added. Remote cabinets section added. Certificate history added.