NATIONAL WEIGHTS AND MEASURES LABORATORY

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

OIML Certificate No
R51/2006-GB1-09.02

OIML CERTIFICATE OF CONFORMITY

Issuing authority
Name: **National Weights and Measures Laboratory**
Address: **Stanton Avenue**
Teddington
Middlesex
TW11 0JZ
United Kingdom

Person responsible: **Gavin Stones**
Deputy Product Certification Manager

Applicant
Name: **Sparc Systems Ltd**
Address: **Merebrook Industrial Estate**
Hanley Road
Malvern
Worcestershire
WR13 6NP

Manufacturer of the certified pattern is the Applicant.

Identification of the certified pattern:

TS 310 checkweigher
Further characteristics see page 2

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 Organization of Legal Metrology (OIML):

OIML:	**R51**
Edition:	**2006 (E)**
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.

The conformity was established by tests described in the associated:

Test report: TR 545 having 39 pages
Pattern evaluation checklist: P00086 (T1108/0051/0075) having 11 pages

The issuing authority

Mr G Stones

The CIML member

Mr P Mason

Date: 08 April 2009
Ref: T1108/0051

Characteristics: Mains-powered automatic checkweighing instrument designated the TS310.

Designation	TS310 – 3 kg	TS310 – 6 kg	TS310 – 15 kg
Maximum capacity:	3000 g	6000 g	15000 g
Minimum capacity (Min):	50 g	100 g	250 g
Scale interval:	1 g	2 g	5 g
Maximum number of scale intervals:	3000		
Load cell excitation voltage	4.7 Vdc		
Tare:	- 500 g	- 1000 g	- 2500 g
Accuracy class	XIII(1)		
Maximum rate operation	50-150 g: 104 packs/min 151 – 3000 g: 132 packs/min	100-300 g: 104 packs/min 302 – 6000 g: 132 packs/min	250-750 g: 104 packs/min 755 – 15000 g: 132 packs/min
Maximum belt speed:	50-150 g: 26 m/min 151 – 3000 g: 33 m/min	100-300 g: 26 m/min 302 – 6000 g: 33 m/min	250-750 g: 26 m/min 755 – 15000 g: 33 m/min
Climatic environment	0°C to +40 °C		
	Non-condensing (closed)		
Electromagnetic environments	E1 and E2		
Power supply	230 Va.c. - 50 Hz		
Pneumatic pressure	6 bar		

Load cell:

The load cell may be one of the following:

Designation	TS310 – 3 kg	TS310 – 6 kg		TS310 – 15 kg
Load cell	HBM PW22C3	HBM PW22C3	HBM PW16AC3	HBM PW16AC3
Emax	20 kg	30 kg	30 kg	50 kg

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.
- 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 (HBM PW22 C3, capacity 20 kg)
- The design of the load cells and the material are the same
- No oil damper is used

Devices:

- Automatic zero setting device active during automatic operation (at least every 7 min if no zero-tracking can take place) (≤ 4% max)
- Semi-automatic zero-setting (≤ 4% max)
- Initial zero-setting (≤ 4% max)
- Zero tracking (≤ 4% max)
- Pre-set tare device (subtractive)
- Static calibration, not accessible to the user
- Belt speed setting, accessible to the user (access password protected)
- Internal memory for storage of batch data
- Screen check at power-up
- High resolution mode (0.1e) for testing purposes, not accessible to the user

Interfaces:

- Ethernet