

OIML Member State
The Netherlands

Number R60/2000-NL1-15.04
Project number SO15201091
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Issuing authority	NMi Certin B.V. Person responsible: C. Oosterman
Applicant and Manufacturer	Balanças Marques, Lda Parque Industrial de Celeirós 2a fase Apartado 2376 – 4701 Braga Portugal
Identification of the certified type	A single point load cell , with strain gauges. Type : MLC 1A / MLC 1A MG
Characteristics	See next page

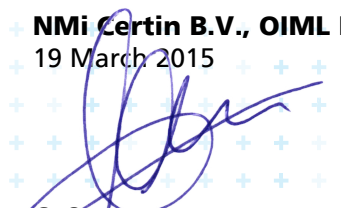
This Certificate attests the conformity of the above identified Type (represented by the sample(s) identified in the OIML Test Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML R60 - Edition 2000 (E) for accuracy class C

This Certificate relates only to the metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML International Recommendation above-identified.
This Certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate was issued, partial quotation of the Certificate and of the associated OIML Test Report(s) is not permitted, although either may be reproduced in full.

Issuing Authority **NMi Certin B.V., OIML Issuing Authority NL1**
19 March 2015



C. Oosterman
Head Certification Board

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This document is issued under the provision that no liability is accepted and that the applicant shall indemnify third-party liability.

The notification of NMi Certin B.V. as Issuing Authority can be verified at www.oiml.org

Parties concerned can lodge objection against this decision, within six weeks after the date of submission, to the general manager of NMi (see www.nmi.nl).



The conformity was established by the results of tests and examinations provided in the associated OIML Test Reports:

- No. NMI-11200434-01 dated 26 November 2012 that includes 25 pages;
- No. NMI-11200434-02 dated 26 November 2012 that includes 27 pages.

Characteristics of the load cell:

Maximum capacity (E_{max})	3 kg up to and including 7 kg	10 kg up to and including 50 kg
Minimum dead load	0 kg	
Accuracy Class	C	
Rated Output	2,00 mV/V	
Maximum number of load cell intervals (n)	3000	6000
Ratio of minimum LC Verification interval $Y = E_{max} / V_{min}$	9000	20000
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	4500	7500
Input impedance	406 $\Omega \pm 15 \Omega$	
Temperature range	-10 °C / +40 °C	
Fraction p_{LC}	0,7	
Humidity Class	CH	
Safe overload	150% of E_{max}	
Output impedance	350 $\Omega \pm 3 \Omega$	
Recommended excitation	5 - 10 V AC/DC	
Excitation maximum	15 V AC/DC	
Transducer material	Aluminium	
Atmospheric protection	IP65	

The characteristics for n_{max} and Y can be reduced separately. Z is proportional or equal to n_{max} .

Each produced load cell is provided with an accompanying document with information about its characteristics.