

**OIML Member State**  
The Netherlands

Number R60/2000-NL1-15.19  
Project number 15200513  
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|                                      |   |
|--------------------------------------|---|
| Issuing authority                    | NMi Certin B.V.<br>Person responsible: C. Oosterman   |
| Applicant and Manufacturer           | Vishay Celtron (Tianjin) Technologies<br>No. 5 Binguan Nan Dao Youyi Road<br>Hexi District, Tianjin 300061<br>China |
| Identification of the certified type | A <b>tension load cell</b> , with strain gauges,<br>Type : STC  |
| Characteristics                      | See next page   |

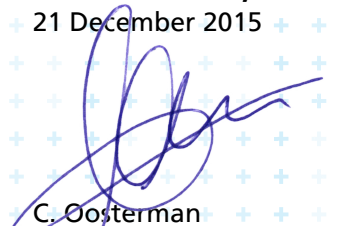
This Certificate attests the conformity of the above identified Type (represented by the sample(s) identified in the OIML Test Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

**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**  
21 December 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](http://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](http://www.nmi.nl)).





# OIML Certificate of Conformity

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The conformity was established by the results of tests and examinations provided in the associated OIML Test Report(s):

- No. NMI-15200513-01 dated 21 December 2015 that includes 51 pages;
- No. NMI-15200513-02 dated 21 December 2015 that includes 46 pages;
- No. NMI-15200513-03 dated 21 December 2015 that includes 46 pages.

**Characteristics of the load cell:**

|  |                                     |                     |                                    |
|--|-------------------------------------|---------------------|------------------------------------|
| Maximum capacity ( $E_{max}$ )                                       | 25 kg up to 100 kg                  | 100 kg up to 500 kg | 500 kg up to and including 2500 kg |
| Minimum dead load  | 0 kg                                |                     |                                    |
| Accuracy Class   | C                                   |                     |                                    |
| Rated Output   | 2,0 mV/V $\pm$ 10%                  | 3,0 mV/V $\pm$ 10%  | 3,0 mV/V $\pm$ 10%                 |
| Maximum number of load cell intervals (n)                            | 3000                                |                     |                                    |
| Ratio of minimum LC Verification interval<br>$Y = E_{max} / V_{min}$ | 15000                               | 7800                | 15000                              |
| Ratio of minimum dead load output return<br>$Z = E_{max} / (2 * DR)$ | 3000                                | 12000               | 3800                               |
| Input impedance  | 385 $\Omega$ $\pm$ 30 $\Omega$      |                     |                                    |
| Temperature range  | -10 $^{\circ}$ C / +40 $^{\circ}$ C |                     |                                    |
| Fraction $p_{LC}$  | 0,7                                 |                     |                                    |
| Humidity Class   | CH                                  |                     |                                    |
| Safe overload  | 150 % of $E_{max}$                  |                     |                                    |
| Output impedance   | 350 $\Omega$ $\pm$ 5 $\Omega$       |                     |                                    |
| Recommended excitation   | 10 V AC / DC                        |                     |                                    |
| Excitation maximum   | 15 V AC / DC                        |                     |                                    |
| Transducer material  | Alloy steel or stainless steel      |                     |                                    |
| Atmospheric protection   | IP67                                |                     |                                    |

The characteristics for  $n_{max}$ , Y and Z can be reduced separately.

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

The above identified Type (represented by the sample(s) identified in the OIML Test Report) have been found to comply with the additional national requirements established by the United States of America (NIST Handbook 44 and NCWM Publication 14), included in the MAA Declaration of Mutual Confidence:

- R 60 DoMC-01 rev.0, Additional requirements from the United States;
- R 60 DoMC-02 rev.0, Additional requirements from the United States.