



OIML Certificate

OIML Member State
The Netherlands

Number R60/2017-A-NL1-19.29
Project number 2422123
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Issuing authority NMI Certin B.V.
Person responsible: F. van Booma – de Smit

Applicant and Manufacturer Ningbo Hechang Electric Co.,LTD
No.66 Yongmao West Road
Ningbo
China

Identification of the certified type A **shear beam load cell**, with strain gauges.
Registered trade name : Hechang Electric
Type : HCQB

Characteristics See next page

This OIML Certificate is issued under scheme A.

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 R 60 - Edition 2017 (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**
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Certification Board

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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-15200654-02 dated 11 December 2015 that includes 51 pages.

Characteristics of the load cell:

| | |
|--|------------------------------------|
| Characterization of load cell capabilities | Analog-passive load cell |
| Maximum capacity (E_{max}) | 500 kg up to and including 2500 kg |
| Minimum dead load | 0 kg |
| Accuracy Class | C |
| Rated Output | $3,000 \pm 0,003$ mV/V |
| Maximum number of load cell intervals (n) | 4000 |
| Ratio of minimum LC Verification interval $Y = E_{max} / V_{min}$ | 10000 |
| Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$ | 4000 |
| Input impedance | $400 \Omega \pm 20 \Omega$ |
| Temperature range | -10 °C / +40 °C |
| Fraction p_{LC} | 0,7 |
| Humidity Class | CH |
| Safe overload | 150 % of E_{max} |
| Output impedance | $352 \Omega \pm 3 \Omega$ |
| Recommended excitation | 10 - 12 V AC / DC |
| Excitation maximum | 15 V AC / DC |
| Transducer material | Alloy steel |
| Atmospheric protection | Hermetically welded |

Remark:

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

Each load cell produced 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 Utilizer Declaration:

- R 60 OIML-CS rev.2 Additional requirements from the United States Accuracy class III L;
- R 60 OIML-CS rev.2 Additional requirements from the United States Marking requirements.