



OIML Certificate

OIML Member State
The Netherlands

Number R60/2021-A-NL1-25.14 revision 0
Project number 4005439
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Issuing authority

NMi Certin B.V.
Person responsible: M.Ph.D. Schmidt

Applicant and
Manufacturer

Vagar
Office 35, 3 Franchischkansa Street
00-233, Warsaw
Poland

Identification of the
certified type

A **shear beam load cell**, with strain gauges.
Registered trade name : Vagar
Type : V4A

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 60-1:2021 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.

This certificate and supporting reports comply with the requirements of OIML-CS-PD-07 clause 6.2.

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
10 September 2025

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

This document is digitally signed and sealed. The digital signature can be verified in the blue ribbon on top of the electronic version of this certificate.





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The conformity was established by the results of tests and examinations provided in the associated reports:

- No. NMI-11200482-01 revision 1 dated 5 October 2017 that includes 51 pages;
- No. NMI-3626916-01 revision 1 dated 23 December 2024 that includes 74 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 10000 kg
Minimum dead load	10 kg
Accuracy Class	C
Rated Output	2 mV/V or 3 mV/V
Maximum number of load cell intervals (n) ⁽¹⁾	3000
Ratio of minimum LC Verification interval ⁽¹⁾ $Y = E_{\max} / v_{\min}$	10000
Ratio of minimum dead load output return ⁽¹⁾ $Z = E_{\max} / (2 * DR)$	3000
Input impedance	$385 \Omega \pm 10 \Omega$
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 - 12 V AC / DC
Excitation maximum	15 V AC / DC
Transducer material	Alloy steel or stainless steel
Atmospheric protection	Silicon rubber

Remarks:

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.



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Revision History

Revision	Date	Change(s)
0	2025-09-10	Initial issue.