

OIML Member State
The Netherlands

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Project number 3606849
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Issuing authority

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

Applicant and
Manufacturer

Vishay Precision Group – force sensors
2 Felix Zandman street
Holon, 5881419
Israel

Manufacturer

Vishay Precision Transducers India Ltd.
OZ-22 Hi-Tech SEZ
Kancheepuram 602105 Tamil Nadu
India

Identification of the
certified type

A **shear beam load cell**, with strain gauges.
Registered trade name : Tedeo-Huntleigh or vpg force sensors
Type : 3410 and 3411

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 60-1:2017 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.

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Issuing Authority

NMi Certin B.V., OIML Issuing Authority NL1
24 January 2023

Certification Board

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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 OIML Reports:

- No. R60/2000-NL-01.18 dated 5 September 2001 that includes 40 pages;
- No. R60/2000-NL-02.01 dated 3 January 2002 that includes 39 pages.
- No. NMI-3606849-01 dated 24 January 2023 that includes 26 pages.

Characteristics of the load cell:

Characterization of load cell capabilities	Analog-passive load cell			
Maximum capacity (E_{max})	550 lb up to and including 11025 lb 250 kg up to and including 5000 kg			
Minimum dead load	0 kg			
Accuracy Class	C			
Rated Output	2 mV/V \pm 0,1% (for 550, 1100, 2200, 4400, 11025 lb and 250, 500, 1000, 2000, 5000 kg)		3 mV/V \pm 0,1% (for 1000, 1500, 2000, 2500, 4000 lb and 450, 680, 907, 1130, 1800 kg)	
Maximum number of load cell intervals (n) ⁽¹⁾	700	1000	2000	3000
Ratio of minimum LC Verification interval ⁽¹⁾ $Y = E_{max} / V_{min}$	2333	3333	6667	10000
Ratio of minimum dead load output return ⁽¹⁾ $Z = E_{max} / (2 * DR)$	10000			
Input impedance	380 Ω \pm 10 Ω or 1100 Ω \pm 30 Ω			
Temperature range	-10 °C / + 40 °C			
Humidity Class	CH			
Safe overload	150 % of E_{max}			
Output impedance	355 Ω \pm 50 Ω or 1025 Ω \pm 25 Ω			
Recommended excitation	10 V DC / AC			
Excitation maximum	15 V DC / AC			
Transducer material	Electroless Nickel Plated Steel or Stainless Steel			
Atmospheric protection	Potted or IP 67			

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.



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Revision History

Revision	Date	Change
0	2023-01-24	Initial issue.