

Nederlands Meetinstituut

Test certificate

Number **TC5703** revision 3
 Project number 311872
 Page 1 of 4

Issued by NMI Certin B.V.
 Hugo de Grootplein 1
 3314 EG Dordrecht
 The Netherlands

Notified Body Number 0122

In accordance with Paragraph 8.1 of the European Standard on Metrological aspects of non-automatic weighing instruments EN 45501:1992/AC:1993 and by application of the OIML International Recommendation R 60 (Edition 2000). The applied error fraction p_1 , meant in the paragraph 3.5.4. of the standard is 0.7.

Applicant Vishay TedeA-Huntleigh Ltd.
 5a Hatzoran St.,
 Netanya, 42506
 Israel

In respect of **A bending beam load cell**, with strain gauges, tested as a part of a weighing instrument.
 Manufacturer : TedeA-Huntleigh
 Type : 1130

Characteristics

Maximum capacity (E_{max})	7 kg up to and including 75 kg		7 kg up to and including 35 kg	
Accuracy class	C			
Maximum number of load cell verification intervals (n_{max})	1000	2000	3000	6000
Ratio of minimum LC verification interval $Y = E_{max} / V_{min}$	2000	4000	15000	15000
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	----			14000

In the description number TC5703 revision 3 further characteristics are described.

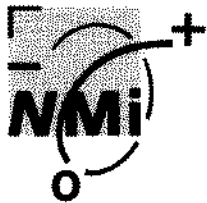
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NMI B.V.
 (Chamber of Commerce no.27.228.701)

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Test certificate

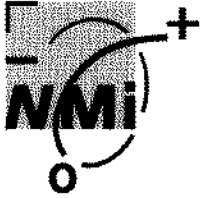
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Description and documentation The load cell is described in the description number TC5703 revision 3 and documented in the documentation folder TC5703-3, appertaining to this test certificate.

Remarks Summary of the test involved: see Appendix number TC5703 revision 3
This revision test certificate replaces the earlier version(s), including its documentation folder.

Delft, 24 November 2003
NMI Certin B.V.

P.P.M. van Enkevort
Manager Certification Delft



1 General information about the load cell

All properties of the load cell, whether mentioned or not, may not be in conflict with the standard mentioned in the test certificate.

1.1 Essential parts

Description	Drawing number	Rev.	Remarks
General dimensions	196.000.00-3	E	Mechanical
General dimensions	196.001.00-3	A	Mechanical
Wiring Schematic diagram	196.200.00-2	F	Electrical

Cable:

- The load cell is provided with a 4- or 6-wire system.
Because no "remote-sensing" is used by the 4-wire system that cable length has to correspond with the cable length mentioned on the descriptive plate of the load cell.
- The cable should be a shielded cable, the shield may be connected to the load cell.

1.2 Essential characteristics

Minimum dead load	: 0 kg
Safe overload	: 150 % of E_{max}
Rated Output	: 2 mV/V \pm 0.2 mV/V
Input impedance	: 385 Ω \pm 10 Ω
Output impedance	: 351 Ω \pm 5 Ω
Recommended excitation	: 10 V DC/AC
Excitation maximum	: 15 V DC/AC
Transducer material	: Stainless Steel
Atmospheric protection	: Adhesive Silicone Rubber (IP66 or IP67)

1.3 Essential shapes

The load cell is built according to the drawings:

- General dimensions, drawing number 196.000.00-3;
- General dimensions, drawing number 196.001.00-3;
- Wiring Schematic diagram, drawing number 196.200.00-2.

The data plate is secured against removal by sealing or will be destroyed when removed. The data plate mentions at least the information and markings as described in the OIML R60 document. In the countries where it is mandatory the load cell should bear this test certificate number: TC5703.

Securing:

The connecting cable of the load cell or the junction box is provided with possibility to seal.



Tests performed for this test certificate:

Test	Institute	type, version, remarks
Temperature test and repeatability (20, 40, -10 and 20 °C)	NMi Certin B.V	Model 1130 7 kg C3 and 15 kg C3
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V	Model 1130 7 kg C3 and 15 kg C3
Creep (20, 40 and -10 °C)	NMi Certin B.V	Model 1130 7 kg C3 and 15 kg C3
Minimum dead load output return (20, 40 and -10 °C)	NMi Certin B.V	Model 1130 7 kg C3 and 15 kg C3
Barometric pressure effects at room temperature	NMi Certin B.V	Model 1130 15 kg C3
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	Model 1130 7 kg C6 and 15 kg C3



Nederlands Meetinstituut

OIML Member State
The Netherlands

OIML Certificate N° R60/2000-NL1-03.27

Project number 311872

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OIML CERTIFICATE OF CONFORMITY

Issuing Authority

Name: NMI Certin B.V.
Address: Hugo de Grootplein 1, Dordrecht
Person responsible: P.P.M. van Enkevort

Applicant

Name: Vishay Tedea-Huntleigh Ltd.
Address: 5a Hatzoran St.,
Netanya, 42506
Israel

Manufacturer of the certified type

Name: Vishay Tedea-Huntleigh Ltd.
Address: 5a Hatzoran St.,
Netanya, 42506
Israel

Identification of the certified type

Type : 1130
Fraction : $P_i = 0.7$
Temperature range $-10\text{ °C} / +40\text{ °C}$

Maximum capacity (E_{max})	7 kg up to and including 75 kg			7 kg up to and including 35 kg
Accuracy class	C			
Maximum number of load cell verification intervals (n_{max})	1000	2000	3000	6000
Ratio of minimum LC verification interval $Y = E_{max} / V_{min}$	2000	4000	15000	15000
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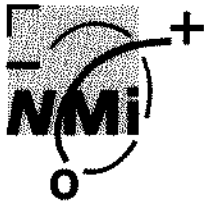
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OIML Certificate N° R60/2000-NL1-03.27
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This Certificate attests the conformity of the above identified type (represented by the sample or samples identified in the associated Test Report, the test certificate and the description with number TC5703 and the appertaining documentation folder), with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

R60
Edition 2000 (E)
for accuracy class C

This Certificate relates only to the metrological and technical characteristics of the type of the instrument covered by the relevant OIML International Recommendation identified above.

This Certificate does not bestow any form of legal international approval.

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

N° R60/2000-NL-00.06, that includes 38 pages;
N° R60/2000-NL-01.02, that includes 37 pages;
N° R60/2000-NL-01.09, that includes 38 pages.

The Issuing Authority
P.P.M. van Enckevort
Manager Certification Delft

24 November 2003

The OIML Member
G.J. Faber

24 November 2003

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