Nederlands **Meetinstituut**

Test certificate

Number **TC6869** revision 0
Project number 510116

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_i, meant in the paragraph 3.5.4. of the standard is 0.7.

Applicant

Vishay Tedea-Huntleigh International Ltd.
5 Hazoran Street
New Industrial Zone Netanya
42506 ISRAEL

In respect of

A **single point load cell**, with strain gauges, tested as a part of a weighing instrument.
Manufacturer : Vishay-Transducers
Type : 1004

Characteristics

Maximum capacity (E_{max})	0.3 kg up to and including 3 kg
Accuracy class	C
Maximum number of load cell verification intervals (n_{max})	3000
Ratio of minimum LC verification interval $Y = E_{max} / V_{min}$	5000

Temperature range +5 °C / +40 °C

In the description number TC6869 revision 0 further characteristics are described.

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

Subsidiary companies:
NMi Van Swinden Laboratorium B.V. (27228703)
NMi Certin B.V. (27.233.418)
Verispect B.V. (27.228.700)

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Number **TC6869** revision 0
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Description and documentation	The load cell is described in the description number TC6869 revision 0 and documented in the documentation folder TC6869-1, appertaining to this test certificate.
Remarks	Summary of the test involved: see Appendix number TC6869 revision 0.

Dordrecht, 27 December 2005
NMi Certin B.V.

Ing. C. Oosterman
Manager Product Certification

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
Model 1004 Single Point Load Cell	273.000.00-3	0	Mechanical
Model 1004 Load Cell	273.200.00-3	0	Electrical

Cable:
- The load cell is provided with a 4-wire system.
  The cable length has to be approximately 0.4 meters.
  The cable length shall not be modified.
- The cable should be a shielded cable, the shield is not connected to the load cell.

1.2 Essential characteristics

Minimum dead load	:	0 kg
Safe overload	:	150 % of E_{max}
Rated Output	:	0.9 mV/V ± 0.1 mV/V
Input impedance	:	415 Ω ± 20 Ω
Output impedance	:	350 Ω ± 3 Ω
Recommended excitation	:	10 V DC/AC
Excitation maximum	:	15 V DC/AC
Transducer material	:	Aluminum
Atmospheric protection	:	Silicone rubber

1.3 Essential shapes

The load cell is built according to drawings:
- Model 1004 Single Point Load Cell, drawing number 273.000.00-3;
- Model 1004 Load Cell, drawing number 273.200.00-3.

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: TC6869.

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

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Appendix

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.	1004 0.3 kg C3 and 1004 3 kg C3
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	1004 0.3 kg C3 and 1004 3 kg C3
Creep (20, 40 and –10 °C)	NMi Certin B.V.	1004 0.3 kg C3 and 1004 3 kg C3
Minimum dead load output return (20, 40 and –10 °C)	NMi Certin B.V.	1004 0.3 kg C3 and 1004 3 kg C3
Barometric pressure effects at room temperature	NMi Certin B.V.	1004 0.3 kg C3
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	1004 0.3 kg C3

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OIML Member state
The Netherlands

OIML Certificate N° R60/2000-NL1-05.23
Project number 510116

OIML CERTIFICATE OF CONFORMITY

Issuing authority

Name: NMi Certin B.V.

Address: Hugo de Grootplein 1
3314 EG Dordrecht
The Netherlands

Person responsible: Ing. C. Oosterman

Applicant

Name: Vishay Tedea-Huntleigh International Ltd.

Address: 5 Hazoran Street
New Industrial Zone Netanya
42506 ISRAEL

Manufacturer of the certified type

Name: Vishay-Transducers

Address: 5 Hazoran Street
New Industrial Zone Netanya
42506 ISRAEL

Identification of certified type

Type : 1004
Fraction : $P_i = 0.7$
Temperature range +5 °C / +40 °C

Maximum capacity (E_{max})	0.3 kg up to and including 3 kg
Accuracy Class	C
Maximum number of load cell intervals (n)	3000
Ratio of minimum LC Verification interval $Y = E_{max} / V_{min}$	5000

NMi Certin B.V.
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Nederlands Meetinstituut

OIML Certificate N° R60/2000-NL1-05.23

OIML Member state
The Netherlands

Project number 510116

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 TC6869 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 instrument covered by the relevant OIML 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-NL1-05.23A that includes 40 pages;
N° R60/2000-NL1-05.23B that includes 37 pages.

The Issuing Authority
Ing. C. Oosterman
Manager Product Certification

27 December 2005

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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.