

Number **TC8012** revision 0

Project number 11200684

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Issued by NMI Certin B.V.
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The Netherlands

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).

Manufacturer Zhonghang Electronic Measuring Instruments Co., Ltd.(ZEMIC)
XinYuan Rd. North Zone of EDZ, Hanzhong,
723000 Shaanxi
China

In respect of **A bending beam or shear beam Load Cell**, with strain gauges, tested as a part of a weighing instrument.
Manufacturer : Zhonghang Electronic Measuring Instruments Co., Ltd. (ZEMIC)
Type : H8C -xx-xx-xxx-xx Series

Characteristics E_{max} : 100 kg up to and including 250 kg for bending beam
1000 kg up to and including 15000 kg for shear beam
Accuracy class : C

In the description number TC8012 revision 0 further characteristics are described.

Description and documentation The load cell is described in the description number TC8012 revision 0 and documented in the documentation folder TC8012-1, appertaining to this test certificate.

Remarks Summary of the test involved: see Appendix number TC8012 revision 0.

Issuing Authority

NMI Certin B.V. Notified Body number 0122
24 October 2011



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Head Certification Board

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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
H8C Load Cells Catalogue for using	8012/0-01	0	Mechanical/ Electrical 6 pages

Cable:

- The load cell is provided with a 4-wire system:
 - The cable length is mentioned on the load cell, see chapter "Naming example" in the H8C Load cells Catalogue for using;
 - The cable length shall not be modified.
- The load cell is provided with a 6-wire system (= "Remote-sensing"):
 - The cable length is not limited.
- The cable should be a shielded cable, the shield is not connected to the load cell.

1.2 Essential characteristics

Type	H8C-xx-xxx-xxx-xx Series		
Load cell construction	Bending beam	Shear beam	
Humidity classification	CH	CH	
Fraction p_{ic}	0,7	0,7	
Temperature range	-10 °C / +40 °C	-10 °C / +40 °C	
Maximum capacity E_{max}	100 kg up to and including 250 kg	1000 kg up to and including 2500 kg	3000 kg up to and including 15000 kg
Accuracy class	C	C	
Maximum number of load cell verification intervals n_{max}	5000	5000	
Ratio of minimum LC verification interval $Y = E_{max} / v_{min}$	20000	20000	18000
Ratio of minimum dead load output return $Z = E_{max} / 2 * DR$	5000	5000	



Description

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The characteristics for n_{\max} and Y can be reduced separately. Z is proportional or equal to n_{\max} . Each produced load cell is supplied with information about its characteristics.

Minimum dead load	: 0 kg
Safe overload	: 150% of E_{\max}
Rated Output	: 3 mV/V \pm 0,03 mV/V
Input impedance	: 350 Ω \pm 3,5 Ω
Output impedance	: 350 Ω \pm 3,5 Ω
Recommended excitation	: 5-12 V DC/AC
Excitation maximum	: 18 V DC/AC
Transducer material	: Alloy steel
Atmospheric protection	: Silicon rubber

1.3 Essential shapes

The load cell is built according to drawing:

- H8C Load Cells Catalogue for using, drawing number 8012/0-01.

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: TC8012.

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.	H8C-C5- 100 kg-4B H8C-C5 -1000 kg-4B H8C-C5 -3000 kg -6B
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	H8C-C5- 100 kg-4B H8C-C5 -1000 kg-4B H8C-C5 -3000 kg -6B
Creep (20, 40 and -10 °C)	NMi Certin B.V.	H8C-C5- 100 kg-4B H8C-C5 -1000 kg-4B H8C-C5 -3000 kg -6B
Minimum dead load output return (20, 40 and -10 °C)	NMi Certin B.V.	H8C-C5- 100 kg-4B H8C-C5 -1000 kg-4B H8C-C5 -3000 kg -6B
Barometric pressure effects at room temperature	NMi Certin B.V.	H8C-C5- 100 kg-4B
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	H8C-C5- 100 kg-4B H8C-C5 -1000 kg-4B H8C-C5 -3000 kg -6B