

Issued by	NMi Certin B.V. Hugo de Grootplein 1 3314 EG Dordrecht 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 <b>bending beam</b> or <b>shear beam load cell</b> , 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 500 kg up to and including 15 t for shear beam Accuracy class : C In the description number TC8012 revision 1 further characteristics are described.
Description and documentation	The load cell is described in the description number TC8012 revision 1 and documented in the documentation folder TC8012-2, appertaining to this test certificate.
Remarks	Summary of the test involved: see Appendix number TC8012 revision 1. This revision test certificate replaces the earlier version, including its documentation folder.

Issuing Authority **NMi Certin B.V. Notified Body number 0122**  
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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	8012/1-01	1	Mechanical/ Electrical

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			
Fraction $p_{lc}$	0,7			
Temperature range	-10 °C / +40 °C			
Maximum capacity $E_{max}$	100 kg up to and including 250 kg	500 kg up to and including 2500 kg	3000 kg up to and including 15000 kg	
Accuracy class	C			
Maximum number of load cell verification intervals $n_{max}$	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			

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	: 2,0 mV/V $\pm$ 0,002 mV/V 3,0 mV/V $\pm$ 0,003 mV/V
Input impedance	: 350 $\Omega$ $\pm$ 3,5 $\Omega$
Output impedance	: 350 $\Omega$ $\pm$ 3,5 $\Omega$
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 drawings:

- "H8C Load Cells Catalogue for using", drawing number 8012/1-01;

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-C5-100kg-4B H8C-C5-500kg-4B H8C-C5-1000kg-4B H8C-C5-3000kg-6B
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	H8C-C5-100kg-4B H8C-C5-500kg-4B H8C-C5-1000kg-4B H8C-C5-3000kg-6B
Creep (20, 40 and -10 °C)	NMi Certin B.V.	H8C-C5-100kg-4B H8C-C5-500kg-4B H8C-C5-1000kg-4B H8C-C5-3000kg-6B
Minimum dead load output return (20, 40 and -10 °C)	NMi Certin B.V.	H8C-C5-100kg-4B H8C-C5-500kg-4B H8C-C5-1000kg-4B H8C-C5-3000kg-6B
Barometric pressure effects at room temperature	NMi Certin B.V.	H8C-C5-100kg-4B H8C-C5-500kg-4B
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	H8C-C5-100kg-4B H8C-C5-500kg-4B H8C-C5-1000kg-4B H8C-C5-3000kg-6B