

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>S-beam compression load cell</b> , with strain gauges, tested as a part of a weighing instrument. Manufacturer : Zhonghang Electronic Measuring Instruments Co., Ltd. (ZEMIC) Type : HM3Q-Cx-xt-xx x-xx Series
Characteristics	$E_{max}$ : 6 t up to and including 30 t Accuracy class : C  In the description number TC8102 revision 0 further characteristics are described.
Description and documentation	The load cell is described in the description number TC8102 revision 0 and documented in the documentation folder TC8102-1, appertaining to this test certificate.
Remarks	Summary of the test involved: see Appendix number TC8102 revision 0.

Issuing Authority **NMi Certin B.V. Notified Body number 0122**  
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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
HM3Q Load Cells Catalogue for using	8102/0-01	0	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 BM8H 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		HM3Q-Cx-xt-xx x-xx Series
Load cell construction		S-beam compression
Humidity classification		CH
Fraction $p_{ic}$		0,7
Temperature range		-10 °C / +40 °C
Maximum capacity	$E_{max}$	6 t up to and including 30 t
Accuracy class		C
Maximum number of load cell verification intervals	$n_{max}$	4000
Ratio of minimum LC verification interval	$Y = E_{max} / v_{min}$	20000
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
Input impedance	: 1000 $\Omega$ $\pm$ 10 $\Omega$
Output impedance	: 1004 $\Omega$ $\pm$ 5 $\Omega$
Recommended excitation	: 5 - 12 V DC/AC
Excitation maximum	: 18 V DC/AC
Transducer material	: Alloy steel
Atmospheric protection	: Hermetically welded

### 1.3 Essential shapes

The load cell is built according to drawing:

- "HM3Q Load Cells Catalogue for using", drawing number 8102/0-01.

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: TC8102.

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.	HM3Q-C4-6T-10B
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	HM3Q-C4-6T-10B
Creep (20, 40 and -10 °C)	NMi Certin B.V.	HM3Q-C4-6T-10B
Minimum dead load output return (20, 40 and -10 °C)	NMi Certin B.V.	HM3Q-C4-6T-10B
Barometric pressure effects at room temperature	NMi Certin B.V.	HM3Q-C4-6T-10B
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	HM3Q-C4-6T-10B