

Number **TC7815** revision 0

Project number 10200593

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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 Zemic Europe BV
Leerlooierstraat 8
4871 EN Etten-Leur
The Netherlands

In respect of A **compression load cell**, with strain gauges, tested as a part of a weighing instrument.
Manufacturer : Zemic Europe
Type : BM14G4

Characteristics E_{max} : 10000 kg up to and including 50000 kg
Accuracy class : C

In the description number TC7815 revision 0 further characteristics are described.

Description and documentation The load cell is described in the description number TC7815 revision 0 and documented in the documentation folder TC7815-1, appertaining to this test certificate.

Remarks Summary of the test involved: see Appendix number TC7815 revision 0

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
Datasheet BM14G load cell	2010.08 BM14G	5	Mechanical and Electrical

Cable:

- The load cell is provided with a 4-wire system.
 The cable length is described in the type name of each load cell in the format: BM14G4-C4-*xx*-*yy*B-SC, where *xx* is the maximum capacity in tons, and *yy* is the cable length in 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

Fraction P_i	: 0.7
Maximum capacity (E_{max})	: 10000 kg up to and including 50000 kg
Humidity Class	: CH
Temperature range	: -10 °C / +40 °C
Accuracy Class	: C
Maximum number of load cell intervals (n)	: 4000
Ratio of minimum LC Verification interval	: 8800
$Y = E_{max} / V_{min}$	
Ratio of minimum dead load output return	: 4000
$Z = E_{max} / (2 * DR)$	

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.



Description

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Minimum dead load	: 0 kg
Safe overload	: 150 % of E_{max}
Rated Output	: 2.0 mV/V \pm 0.02 mV/V
Input impedance	: 700 Ω \pm 7 Ω
Output impedance	: 700 Ω \pm 7 Ω
Recommended excitation	: 5 - 12 V DC/AC
Excitation maximum	: 18 V DC/AC
Transducer material	: Stainless steel
Atmospheric protection	: Stainless steel welded

1.3 Essential shapes

The load cell is built according to drawing:

- "Datasheet BM14G load cell", drawing number 2010.08 BM14G.

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: TC7815.

Securing:

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



Appendix

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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.	BM14G4 C4 10t
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	BM14G4 C4 10t
Creep (20, 40 and -10 °C)	NMi Certin B.V.	BM14G4 C4 10t
Minimum dead load output return (20, 40 and -10 °C)	NMi Certin B.V.	BM14G4 C4 10t
Barometric pressure effects at room temperature	NMi Certin B.V.	BM14G4 C4 10t
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	BM14G4 C4 10t