



Test certificate

Number **TC7809** revision 0
Project number 10200725
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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.
No. 66, Zhongyuan Road, Puzhen, Hanzhong
723007, Shaanxi
China

In respect of A **shear beam load cell**, with strain gauges, tested as a part of a weighing instrument.
Manufacturer : Zhonghang Electronic Measuring Instruments Co., Ltd
Type : B8Q Series

Characteristics E_{max} : 500 kg up to and including 2000 kg
Accuracy class : C

In the description number TC7809 revision 0 further characteristics are described.

Description and documentation The load cell is described in the description number TC7809 revision 0 and documented in the documentation folder TC7809-1, appertaining to this test certificate.

Remarks Summary of the test involved: see Appendix number TC7809 revision 0

Issuing Authority **NMI Certin B.V. Notified Body number 0122**
20 September 2010


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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 |
|------------------------------------|----------------|------|---------------------------------|
| B8Q Load cells Catalogue for using | 24082010002 | 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 B8Q Load cells Catalogue for using;
- The cable length shall not be modified;
- If 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 | | B8Q |
| Humidity classification | | CH |
| Fraction p_{lc} | | 0.7 |
| Temperature range | | -10 °C / +40 °C |
| Maximum capacity | E_{max} | 500 kg up to and including 2000 kg |
| Accuracy class | | C |
| Maximum number of load cell verification intervals | n_{max} | 3000 |
| Ratio of minimum LC verification interval | $Y = E_{max} / v_{min}$ | 15000 |
| Ratio of minimum dead load output return | $Z = E_{max} / 2 * DR$ | 6000 |

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 mV/V \pm 0.002 mV/V |
| Input impedance | : 1106 Ω \pm 5 Ω |
| Output impedance | : 1000 Ω \pm 3 Ω |
| Recommended excitation | : 5 - 12 V AC/DC |
| Excitation maximum | : 18 V AC/DC |
| Transducer material | : Stainless Steel |
| Atmospheric protection | : Silicon rubber |

1.3 Essential shapes

The load cell is built according to drawing:

- B8Q Load cells Catalogue for using, drawing number 24082010002.

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: TC7809.

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. | B8Q-C3-500 kg – 3B |
| Temperature effect on minimum dead load output (20, 40, -10 and 20 °C) | NMi Certin B.V. | B8Q-C3-500 kg – 3B |
| Creep (20, 40 and -10 °C) | NMi Certin B.V. | B8Q-C3-500 kg – 3B |
| Minimum dead load output return (20, 40 and -10 °C) | NMi Certin B.V. | B8Q-C3-500 kg – 3B |
| Barometric pressure effects at room temperature | NMi Certin B.V. | B8Q-C3-500 kg – 3B |
| Damp heat, cyclic: marked CH (or not marked) | NMi Certin B.V. | B8Q-C3-500 kg – 3B |