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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.(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 : BM8D-xx-xx-xxx-xx Series |
| Characteristics | E_{max} : 150 kg up to and including 300 kg for bending beam 500 kg up to and including 15000 kg for shear beam Accuracy class : C In the description number TC7869 revision 2 further characteristics are described. |
| Description and documentation | The load cell is described in the description number TC7869 revision 2 and documented in the documentation folder TC7869-3, appertaining to this test certificate. |
| Remarks | Summary of the test involved: see Appendix number TC7869 revision 2. This revision test certificate replaces the earlier versions, 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 |
|-------------------------------------|----------------|------|------------------------|
| BM8D Load Cells Catalogue for using | 7869/2-01 | 2 | 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 BM8D 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 | BM8D-xx-xxx-xxx-xx Series | | |
|---|-----------------------------------|------------------------------------|--------------------------------------|
| Load cell construction | Bending beam | Shear beam | |
| Humidity classification | CH | CH | CH |
| Fraction p_{lc} | 0,7 | 0,7 | 0,7 |
| Temperature range | -10 °C / +40 °C | -10 °C / +40 °C | -10 °C / +40 °C |
| Maximum capacity E_{max} | 150 kg up to and including 300 kg | 500 kg up to and including 2500 kg | 3000 kg up to and including 15000 kg |
| Accuracy class | C | C | C |
| Maximum number of load cell verification intervals n_{max} | 3000 | 6000 | 5000 |
| Ratio of minimum LC verification interval $Y = E_{max} / V_{min}$ | 15000 | 20000 | 20000 |
| Ratio of minimum dead load output return $Z = E_{max} / 2 * DR$ | 3000 | 6000 | 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.

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|------------------------|--|
| Minimum dead load | : 0 kg |
| Safe overload | : 150% of E_{max} |
| Rated Output | : 2,0 mV/V \pm 0,04 mV/V 3,0 mV/V \pm 0,08 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 | : Stainless steel |
| Atmospheric protection | : Hermetically welded |



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1.3 Essential shapes

The load cell is built according to drawing:

- "BM8D Load Cells Catalogue for using", drawing number 7869/2-01.

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: TC7869.

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. | BM8D-C3-150kg-6B-S1 BM8D-C5-3000kg-6B-S1 BM8D-C6-500kg-6B-S1 |
| Temperature effect on minimum dead load output (20, 40, -10 and 20 °C) | NMi Certin B.V. | BM8D-C3-150kg-6B-S1 BM8D-C5-3000kg-6B-S1 BM8D-C6-500kg-6B-S1 |
| Creep (20, 40 and -10 °C) | NMi Certin B.V. | BM8D-C3-150kg-6B-S1 BM8D-C5-3000kg-6B-S1 BM8D-C6-500kg-6B-S1 |
| Minimum dead load output return (20, 40 and -10 °C) | NMi Certin B.V. | BM8D-C3-150kg-6B-S1 BM8D-C5-3000kg-6B-S1 BM8D-C6-500kg-6B-S1 |
| Barometric pressure effects at room temperature | NMi Certin B.V. | BM8D-C3-150kg-6B-S1 BM8D-C5-3000kg-6B-S1 BM8D-C6-500kg-6B-S1 |
| Damp heat, cyclic: marked CH (or not marked) | NMi Certin B.V. | BM8D-C3-150kg-6B-S1 BM8D-C5-3000kg-6B-S1 BM8D-C6-500kg-6B-S1 |