

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 Instrument Co., Ltd. (ZEMIC) Xinyuan Rd. North Zone of EDZ, Hanzhong 723000, Shaanxi China
In respect of	A compression load cell, ring type , with strain gauges, tested as a part of a weighing instrument. Manufacturer : Zhonghang Electronic Measuring Instrument Co., Ltd (ZEMIC) Type : BM24R--xx-xxx-xxx-xx Series
Characteristics	E_{max} : 60 kg up to and including 60 t Accuracy class : C In the description number TC7865 revision 1 further characteristics are described.
Description and documentation	The load cell is described in the description number TC7865 revision 1 and documented in the documentation folder TC7865-2, appertaining to this test certificate.
Remarks	Summary of the test involved: see Appendix number TC7865 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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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
BM24R Load cells Catalogue for using	7865/1-01	1	Mechanical / Electrical 9 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 BM24R Load cells Catalogue for using;
 - The cable length shall not be modified;
- The cable should be a shielded cable, the shield may be connected to the load cell.

1.2 Essential characteristics

Type	BM24R--xx-xxx-xxx-xx Series			
Humidity classification	CH			
Fraction p_{ic}	0,7			
Temperature range	-10 °C / +40 °C			
Maximum capacity	E_{max}	60, 130, 250 and 280 kg	500 kg up to and including 10 t	13 t up to and including 60 t
Accuracy class	C			
Maximum number of load cell verification intervals	n_{max}	5000		
Ratio of minimum LC verification interval	$Y = E_{max} / v_{min}$	16000	17500	25000
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.



Description

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Minimum dead load	: 0 kg
Safe overload	: 150 % of E_{max}
Rated Output	: 1,0 mV/V \pm 0,1 mV/V for 60, 130 and 280 kg 1,75 mV/V \pm 0,1 mV/V for 250 kg 2,0 mV/V \pm 0,1 mV/V for 500 kg up to and incl. 60 t
Input impedance	: 1260 Ω \pm 100 Ω for 60, 130 and 280 kg 1100 Ω \pm 100 Ω for 250 kg up to and incl. 10 t 1200 Ω \pm 100 Ω for 13 t 1075 Ω \pm 100 Ω for 28 t 1350 Ω \pm 200 Ω for 60 t
Output impedance	: 1020 Ω \pm 0,5 Ω for 60, 130 and 280 kg 1025 Ω \pm 25 Ω for 250 kg up to and incl. 10 t 1000 Ω \pm 0,5 Ω for 13 t 930 Ω \pm 0,5 Ω for 28 t 1175 Ω \pm 0,5 Ω for 60 t
Recommended excitation	: 5 – 12 V DC/AC
Excitation maximum	: 18 V DC/AC
Transducer material	: Stainless steel
Atmospheric protection	: Hermetically welded

1.3 Essential shapes

The load cell is built according to drawing:

- "BM24R Load cells Catalogue for using", drawing number 7865/1-01.

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: TC7865.

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.	BM24R-C5-60kg-3B BM24R-C5-280kg-3B BM24R-C5-2000kg-6B BM24R-C5-13t-15B
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	BM24R-C5-60kg-3B BM24R-C5-280kg-3B BM24R-C5-2000kg-6B BM24R-C5-13t-15B
Creep (20, 40 and -10 °C)	NMi Certin B.V.	BM24R-C5-60kg-3B BM24R-C5-280kg-3B BM24R-C5-2000kg-6B BM24R-C5-13t-15B
Minimum dead load output return (20, 40 and -10 °C)	NMi Certin B.V.	BM24R-C5-60kg-3B BM24R-C5-280kg-3B BM24R-C5-2000kg-6B BM24R-C5-13t-15B
Barometric pressure effects at room temperature	NMi Certin B.V.	BM24R-C5-60kg-3B BM24R-C5-13t-15B
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	BM24R-C5-60kg-3B BM24R-C5-13t-15B