

Number **TC7873** revision 0
Project number 10200974
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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 Keli Electric Manufacturing (Ningbo) Co., Ltd.
No. 199 Changxing Road, Jiangbei District
315033 Ningbo City
China

In respect of A **bending beam load cell**, with strain gauges, tested as a part of a weighing instrument.
Manufacturer : Keli Electric Manufacturing (Ningbo) Co., Ltd.
Type : UDN

Characteristics E_{max} : 100 kg up to and including 500 kg
Accuracy class : C

In the description number TC7873 revision 0 further characteristics are described.

Description and documentation The load cell is described in the description number TC7873 revision 0 and documented in the documentation folder TC7873-1, appertaining to this test certificate.

Remarks Summary of the test involved: see Appendix number TC7873 revision 0.

Issuing Authority

NMI Certin B.V. Notified Body number 0122
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C. Oosterman
Head Certification Board

NMI Certin B.V.
Hugo de Grootplein 1
3314 EG Dordrecht
The Netherlands
T +31 78 6332332
certin@nmi.nl
www.nmi.nl

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Description

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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
Specification sheet UDN 100 kg – 500 kg	7873/0-01	0	Mechanical & Electrical

Cable:

- The load cell is provided with a 4-wire system;
 - The cable length has to be approximately 2,0 meters;
 - 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

Fraction P_i	: 0,7
Maximum capacity (E_{max})	: 100 kg up to and including 500 kg
Humidity Class	: SH
Temperature range	: -10 °C / +40 °C
Accuracy Class	: C
Maximum number of load cell intervals (n)	: 4000
Ratio of minimum LC Verification interval	: 15000
$Y = E_{max} / V_{min}$	
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.



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Minimum dead load	: 0 kg
Safe overload	: 150 % of E_{max}
Rated Output	: 2,0 mV/V
Input impedance	: $404 \Omega \pm 10 \Omega$
Output impedance	: $350 \Omega \pm 3 \Omega$
Recommended excitation	: 10 V DC/AC
Excitation maximum	: 15 V DC/AC
Transducer material	: Aluminum
Atmospheric protection	: Silicone rubber

1.3 Essential shapes

The load cell is built according to drawing:

- "Specification sheet UDN 100 kg – 500 kg", drawing number 7873/0-01.

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: TC7873.

Securing:

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

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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.	UDN C4 100kg
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	UDN C4 100kg
Creep (20, 40 and -10 °C)	NMi Certin B.V.	UDN C4 100kg
Minimum dead load output return (20, 40 and -10 °C)	NMi Certin B.V.	UDN C4 100kg
Barometric pressure effects at room temperature	NMi Certin B.V.	UDN C4 100kg
Damp heat, steady state: marked SH	NMi Certin B.V.	UDN C4 100kg