

Number **TC7821** revision 0  
Project number 10200490  
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**Issued by** NMi Certin B.V.  
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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** : UDJ

**Characteristics**  $E_{max}$  : 150 kg up to and including 750 kg  
Accuracy class : C

In the description number TC7821 revision 0 further characteristics are described.

**Description and documentation** The load cell is described in the description number TC7821 revision 0 and documented in the documentation folder TC7821-1, appertaining to this test certificate.

**Remarks** Summary of the test involved: see Appendix number TC7821 revision 0

**Issuing Authority**

**NMi Certin B.V. Notified Body number 0122**  
25 October 2010

  
C. Oosterman  
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
UDJ150~750 kg	KL/JT-UDJ150~750kg.0A	0	Mechanical/Electrical

Cable:

- The load cell is provided with a 4-wire system:
  - The cable length as is mentioned on the marking plate by the manufacturer.
  - 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	0.7
Maximum capacity ( $E_{max}$ )	150 kg up to and including 750 kg
Humidity classification	SH
Temperature range	-10 °C / +40 °C
Accuracy class	C
Maximum number of load cell verification intervals ( $n_{max}$ )	3000
Ratio of minimum LC verification interval $Y = E_{max} / v_{min}$	7000
Ratio of minimum dead load output return $Z = E_{max} / 2 * DR$	3000

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.

Minimum dead load	: 0 kg
Safe overload	: 150 % of $E_{\max}$
Rated Output	: 2 mV/V $\pm$ 0.2 mV/V
Input impedance	: 404 $\Omega$ $\pm$ 10 $\Omega$
Output impedance	: 350 $\Omega$ $\pm$ 3 $\Omega$
Recommended excitation	: 10 V DC
Excitation maximum	: 15 V DC
Transducer material	: Aluminum
Atmospheric protection	: Silicone rubber

### 1.3 Essential shapes

The load cell is built according to drawing:

- UDJ150~750 kg, drawing number KL/JT-UDJ150~750kg.0A.

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: TC7821.

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.	UDJ 150 kg C3
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	UDJ 150 kg C3
Creep (20, 40 and -10 °C)	NMi Certin B.V.	UDJ 150 kg C3
Minimum dead load output return (20, 40 and -10 °C)	NMi Certin B.V.	UDJ 150 kg C3
Barometric pressure effects at room temperature	NMi Certin B.V.	UDJ 150 kg C3
Damp heat, steady state: marked SH	NMi Certin B.V.	UDJ 150 kg C3