

# Test certificate

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Issued by NMi Certin B.V.

In accordance

Paragraph 8.1 of EN 45501:1992/AC:1993, OIML R60:2000, WELMEC 2.4 Issue 2.

with

Manufacturer Keli Sensing Technology (Ningbo) Co., Ltd.

No. 199 Changxing Road, Jiangbei District, Ningbo

China

In respect of A compression load cell, with strain gauges, tested as a part of a weighing

instrument.

Manufacturer : Keli Sensing Technology (Ningbo) Co., Ltd.

Type : ZSKB, ZSKBB, ZSKBC

Characteristics E<sub>max</sub> : 20 t up to and including 100 t

Accuracy class + + : C

In the description number TC8056 revision 0 further characteristics are described.

Description and The load cell is described in the description number TC8056 revision 0 and documentation documented in the documentation folder TC8056-1, appertaining to this

test certificate.

Remarks Summary of the test involved: see Appendix number TC8056 revision 0.

Issuing Authority NMi Certin B.V. Notified Body number 0122

10 April 2012

C. Oosterman Head Certification Board

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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
Outline drawings ZSKB, ZSKBB, ZSKBC	8056/0-01	0	Mechanical/ Electrical

### Cable:

- The load cell is provided with a 4-wire system:

- The cable length shall not be modified.

- The cable length is mentioned in the accompanying load cell document or on the label;

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<sub>i</sub> : 0,7

Maximum capacity  $(E_{max})$  : 20 t up to and including 100 t

Humidity Class : CH

Temperature range :  $-10 \,^{\circ}\text{C} / +40 \,^{\circ}\text{C}$ 

Accuracy Class : C

Maximum number of load cell intervals (n) : 3000

Ratio of minimum LC Verification interval : 10000

 $Y = E_{max} / V_{min}$ 

Ratio of minimum dead load output return : 3000

 $Z = E_{max} / (2 * DR)$ 

The characteristics for  $\mathbf{n}_{max}$  and  $\mathbf{Y}$  can be reduced separately.  $\mathbf{Z}$  is proportional or equal to  $\mathbf{n}_{max}$ 

Each produced load cell is supplied with information about its characteristics.



# Description

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Minimum dead load : 0 kg

Safe overload : 200% of  $E_{\text{max}}$ 

Rated Output : 1,0 mV/V  $\pm$  0,002 mV/V

Atmospheric protection : Hermetically sealed

## 1.3 Essential shapes

The load cell is built according to drawing:

- "Outline drawing ZSKB", drawing number 8056/0-01.

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: TC8056.

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