Test Certificate
Parts Certificate

Number **TC6911** revision 4
Project number 15200654

Issued	NMi Certin B.V.
In accordance with	WELMEC 8.8 Issue 2, Paragraph 8.1 of EN 45501:1992/AC:1993, WELMEC 2.4 Issue 2, OIML R 60 (2000).
Producer	Keli Sensing Technology (Ningbo) Co., Ltd. No. 199 Changxing Road Jiangbei District, Ningbo China
Measuring instrument	A **shear beam load cell**, with strain gauges, tested as a part of a weighing instrument.
	Designation : SQB
	Further properties are described in the annexes: - Description TC6911 revision 4; - Documentation folder TC6911-5.
	An overview of performed tests is given in the annex: - Description TC6911 revision 4.
Remarks	This revision replaces the earlier versions, including its documentation folder.
Issuing Authority	**NMi Certin B.V.** 14 December 2015

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

Description

1 General information about the load cell

All properties of the load cell, whether mentioned or not, shall not be in conflict with the standards mentioned in this certificate.

This certificate is the positive result of the applied voluntary, modular approach, for a component of a measuring instrument, as described in WELMEC 8.8. The complete measuring system must be covered by an EC type-approval certificate, an EC-type examination certificate or an EU-type examination certificate.

1.1 Essential parts

Number	Pages	Description	Remark
6911/0-01	1	SQB Load cell, 1 tf	Mechanical
6911/3-01	1	SQB load cell K32S-2000	Mechanical
6911/0-02	1	Electrical diagram of the SQB load cell	Electrical
6911/1-01	1	Outline drawing SQB	Mechanical/ Electrical
6911/2-01	1	SQB 7.5 – 20 t	Mechanical/ Electrical
6911/4-01	1	SQB 0.5t~2.5t	Mechanical/ Electrical

Cable:
- If the load cell is provided with a 4-wire system:
  - The cable length is mentioned in the accompanying load cell document / on the label;
  - The cable length shall not be modified.
- If the load cell is provided with a 6-wire system (=“Remote-sensing”):
  - The cable length is not limited.

The cable shall be a shielded cable, the shield is not connected to the load cell.

1.2 Essential characteristics

Maximum capacity (E_{max})	150 kg up to and including 750 kg	1000 kg up to and including 5000 kg	7500 kg up to and including 20000 kg	500 kg up to and including 2500 kg
Minimum dead load	0 kg			
Accuracy Class	C			
Rated Output	2,000 ± 0,002 mV/V	3,000 ± 0,003 mV/V		
Maximum number of load cell intervals (n)	3000			4000
Ratio of minimum LC Verification interval $Y = E_{max} / v_{min}$	10000			10000
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	3000			4000
Input impedance	400 Ω ± 20 Ω			
Temperature range	-10 °C / +40 °C			
Fraction p_{LC}	0,7			
Humidity Class	CH			
Safe overload	150 % of E_{max}			
Output impedance	352 Ω ± 3 Ω			
Recommended excitation	10 - 12 V AC / DC			
Excitation maximum	15 V AC / DC			
Transducer material	Alloy steel			
Atmospheric protection	Hermetically welded			

The characteristics for n_{max} and Y can be reduced separately. Z is proportional or equal to n_{max}.

Each produced load cell is provided with an accompanying document with information about its characteristics.

1.3 Essential shapes

The load cell is built according to drawings:

Number	Pages	Description	Remark
6911/0-01	1	SQB Load cell, 1 tf	Mechanical
6911/3-01	1	SQB load cell K32S-2000	Mechanical
6911/1-01	1	Outline drawing SQB	Mechanical/ Electrical
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6911/4-01	1	SQB 0.5t~2.5t	Mechanical/ Electrical

The descriptive markings plate is secured against removal by sealing or will be destroyed when removed and contains at least the information and markings as described in OIML R 60 (2000) and:
- This certificate number TC6911 (in the countries where it is mandatory);
- Producers name or mark.

2 Seals

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

3 Conditions for conformity assessment

The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in WELMEC 2 Issue 5 Section 11, at the time of placing on the market.

Other parties may use this certificate without the written permission of the producer (WELMEC 8.8).

4 Reports

An overview of performed tests is given in the reports:
- No. R60/2000-NL1-06.03 dated 22 February 2006 that includes 40 pages;
- No. NMi-11200809-05 dated 10 April 2012 that includes 27 pages;
- No. NMi-13200048-04 dated 6 June 2013 that includes 27 pages;
- No. NMi-15200654-02 dated 11 December 2015 that includes 51 pages.

A report can be a test report, an evaluation report, a type evaluation report and/or a pattern evaluation report.