

Issued by NMI Certin B.V.

In accordance with WELMEC 8.8 2017, WELMEC 2.4 2021, OIML R 60 (2021), EN 45501:2015.

Producer Changzhou Runningtech Sensing Co., Ltd.  
No.20, Wangxian Road  
Xinbei District, Changzhou, Jiangsu province 213133  
China

Measuring instrument A **shear beam load cell**, with strain gauges, tested as a part of a weighing instrument.

Registered trade name : Changzhou Runningtech  
Designation : Bxxxx series

Further properties are described in the annexes:

- Description TC12662 revision 0;
- Documentation folder TC12662-1.

An overview of performed tests is given in the annex:

- Description TC12662 revision 0.

Initially issued 17 August 2023

Issuing Authority

**NMI Certin B.V.**  
17 August 2023

Certification Board

**NMI Certin B.V.**  
Thijssseweg 11  
2629 JA Delft  
The Netherlands  
T +31 88 6362332  
certin@nmi.nl  
www.nmi.nl

This document is issued under the provision that no liability is accepted and that the producer shall indemnify third-party liability.

Reproduction of the complete document only is permitted.

This document is digitally signed and sealed. The digital signature can be verified in the blue ribbon on top of the electronic version of this certificate.

## 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 instrument must be covered by relevant metrological certification that is valid in the country where the instrument is put into use.

### 1.1 Essential parts

Number	Pages	Description	Remark
12662/0-01	1	B310A, B510A, B710A, B510S, B710S	Mechanical / Electrical
12662/0-02	1	B315A, B515A, B715A, B515S, B715S	Mechanical / Electrical
12662/0-03	1	B320A, B520A, B720A, B520S, B720S	Mechanical / Electrical
12662/0-04	1	B530A, B730A, B530S, B730S	Mechanical / Electrical
12662/0-05	1	B540A, B740A, B540S, B740S	Mechanical / Electrical
12662/0-06	1	B535A, B735A, B535S, B735S	Mechanical / Electrical
12662/0-07	1	B550A, B750A, B550S, B750S	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 is shielded; the shield is connected to the load cell.

## 1.2 Essential characteristics

Characterization of load cell capabilities	Analog-passive load cell					
Designation <sup>(2)</sup>	B535A, B535S B735A, B735S B550A, B550S B750A, B750S	B320A B520A, B520S B720A, B720S	B530A, B530S B730A, B730S	B540A, B540S B740A, B740S	B310A B510A, B510S B710A, B710S	B315A B515A, B515S B715A, B715S
Maximum capacity ( $E_{max}$ )	0,55 t - 4,4 t	0,5 t - 2,5 t	0,5 t - 5 t	0,5 t - 10 t	0,5 t - 10 t	0,5 t - 5 t
Minimum dead load	0 kg					
Accuracy Class	C					
Rated Output	1,94 mV/V $\pm 0,1\%$	2 mV/V $\pm 0,1\%$			3 mV/V $\pm 0,1\%$	
Maximum number of load cell intervals (n) <sup>(1)</sup>	4000					
Ratio of minimum LC Verification interval <sup>(1)</sup> $Y = E_{max} / V_{min}$	25000 for $E_{max}$ 0,5 t - 2,5 t 30000 for $E_{max}$ 3 t - 10 t					
Ratio of minimum dead load output return <sup>(1)</sup> $Z = E_{max} / (2 * DR)$	6000 for $E_{max}$ 0,5 t - 2,5 t 4000 for $E_{max}$ 3 t - 10 t					
Input impedance	384 $\Omega \pm 5 \Omega$					
Temperature range	-10 °C / + 40 °C					
Fraction $p_{LC}$	0,7					
Humidity Class	CH					
Safe overload	150 % of $E_{max}$					
Output impedance	350 $\Omega \pm 3 \Omega$					
Recommended excitation	10 V AC / DC					
Excitation maximum	15 V AC / DC					
Transducer material <sup>(2)</sup>	Alloy steel or Stainless steel					
Atmospheric protection	Hermetically welded					

Remarks:

1. The characteristics for  $n_{max}$ , Y and Z can be reduced separately;
2. In the type designation A means Alloy Steel and S means Stainless Steel.

## 1.3 Essential shapes

Number	Pages	Description	Remark
12662/0-01	1	B310A, B510A, B710A, B510S, B710S	Mechanical / Electrical
12662/0-02	1	B315A, B515A, B715A, B515S, B715S	Mechanical / Electrical
12662/0-03	1	B320A, B520A, B720A, B520S, B720S	Mechanical / Electrical
12662/0-04	1	B530A, B730A, B530S, B730S	Mechanical / Electrical
12662/0-05	1	B540A, B740A, B540S, B740S	Mechanical / Electrical
12662/0-06	1	B535A, B735A, B535S, B735S	Mechanical / Electrical
12662/0-07	1	B550A, B750A, B550S, B750S	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 (2021) and:

- This certificate number TC12662 (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

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

The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in EN45501:2015 clause F.4, at the time of putting into use.

Other parties may use this certificate without the written permission of the producer.

## 4 Reports

An overview of performed tests is given in the evaluation report ER12662 revision 0.