

Test Certificate Parts Certificate

Number **TC12331** revision 0
Project number 2484890
Page 1 of 1

Issued by NMI Certin B.V.

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

Producer Zhonghang Electronic Measuring Instruments Co. Ltd.
Xinyuan Road, north part of EDZ Hanzhong
723000, Shaanxi
Hanzhong
China

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

Registered trade name: Zhonghang Electronic Measuring Instruments Co. Ltd.

Designation : HM9B

Further properties are described in the annexes:

- Description TC12331 revision 0;
- Documentation folder TC12331-1.

An overview of performed tests is given in the annex:

- Description TC12331 revision 0.

Issuing Authority

NMI Certin B.V.
23 May 2022

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 system must be covered by an EC type-approval certificate, an EC-type examination certificate, an EU-type examination certificate, or an approval that is valid in the country where the load cell is taken into service.

1.1 Essential parts

Number	Pages	Description	Remark
12331/0-01	1	Outline drawing load cell	-
12331/0-02	2	Outline drawing measuring element	
12331/0-03	1	Electrical drawing	-

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 not connected to the load cell.

1.2 Essential characteristics

Characterization of load cell capabilities	Analog-passive load cell
Maximum capacity ($E_{\max}$)	10000 kg up to and including 50000 kg
Minimum dead load	0 kg
Accuracy Class	C
Rated Output	2,0 mV/V
Maximum number of load cell intervals (n) ⁽¹⁾	3000
Ratio of minimum LC Verification interval ⁽¹⁾ $Y = E_{\max} / v_{\min}$	7500
Ratio of minimum dead load output return ⁽¹⁾ $Z = E_{\max} / (2 * DR)$	3000
Input impedance	700 $\Omega \pm 7 \Omega$



Description

Number **TC12331** revision 0

Project number 2484890

Page 2 of 2

Temperature range	-10 °C / +40 °C
Fraction p_{LC}	0,7
Humidity Class	CH
Safe overload	150 % of E_{max}
Output impedance	$703 \Omega \pm 4 \Omega$
Recommended excitation	5-12 V AC / DC
Excitation maximum	18 V AC / DC
Transducer material	Steel
Atmospheric protection	Hermetically welded

Remarks:

1. The characteristics for n_{max} , Y and Z can be reduced separately.

1.3 Essential shapes

Number	Pages	Description	Remark
12331/0-01	1	Outline drawing load cell	-

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 (2017) and:

- This certificate number TC12331 (in the countries where it is mandatory);
- Producers name or mark.

2 Seals

This load cell can only be used in combination with an indicator that does not allow changing of the adjustment data of the load cell using any interface.

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 ER12331 revision 0.