Test Certificate
Parts Certificate

Number **TC12734** revision 0
Project number 3682284

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	Zhonghang Electronic Measuring Instruments Co. Ltd. Xinyuan Road, north part of EDZ Hanzhong 723000, Hanzhong, Shaanxi China
Measuring instrument	A **compression load cell**, with strain gauges, tested as a part of a weighing instrument. Registered trade name : Zemic Designation : HM14H, HM14Hx (x = 4, 5, 7, 8) Further properties are described in the annexes: - Description TC12734 revision 0; - Documentation folder TC12734-1. An overview of performed tests is given in the annex: - Description TC12734 revision 0.
Initially issued	1 February 2024

Issuing Authority

NMi Certin B.V.
1 February 2024

Certification Board

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PRODUCTS
RvA C 681

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 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
12734/0-01	1	HM14H outline drawing	Mechanical
12734/0-02	1	HM14H4 outline drawing	Mechanical
12734/0-03	1	HM14H5 outline drawing	Mechanical
12734/0-04	1	HM14H7 outline drawing	Mechanical
12734/0-05	1	HM14H8 outline drawing	Mechanical
12734/0-06	1	Load cell wiring	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 not connected to the load cell.

1.2 Essential characteristics

Characterization of load cell capabilities	Analog-passive load cell
Maximum capacity (E_{max})	30 t up to and including 150 t
Minimum dead load	0 t
Accuracy Class	C
Rated Output	2,00 mV/V ± 0,02 mV/V
Maximum number of load cell intervals (n) (1)	4000
Ratio of minimum LC Verification interval (1) $Y = E_{max} / v_{min}$	29000

Ratio of minimum dead load output return [1] $Z = E_{max} / (2 * DR)$	4000
Input impedance	750 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	700 Ω ± 7 Ω
Recommended excitation	10 V AC / DC
Excitation maximum	18 V AC / DC
Transducer material	Alloy steel
Atmospheric protection	Hermetically welded

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

1.3 Essential shapes

Number	Pages	Description	Remark
12734/0-01	1	HM14H outline drawing	Mechanical
12734/0-02	1	HM14H4 outline drawing	Mechanical
12734/0-03	1	HM14H5 outline drawing	Mechanical
12734/0-04	1	HM14H7 outline drawing	Mechanical
12734/0-05	1	HM14H8 outline drawing	Mechanical

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 TC12734 (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 ER12734 revision 0.