

# Test Certificate Parts Certificate

Number **TC11749** revision 0  
Project number 2234382  
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Issued by NMI Certin B.V.

In accordance with WELMEC 8.8 2017, WELMEC 2.4 Issue 2, OIML R 60 (2017), EN 45501:2015.

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Im Tiefen See 45  
D-64293 Darmstadt  
Germany

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

Registered trade name : HBM  
Designation : PW12C...

Further properties are described in the annexes:

- Description TC11749 revision 0;
- Documentation folder TC11749-1.

An overview of performed tests is given in the annex:

- Description TC11749 revision 0.

Issuing Authority

**NMI Certin B.V.**  
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Certification Board

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## 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
11749/0-01	1	Outline drawing	Mechanical
11749/0-02	1	Electrical drawing	-

Cable:

- 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
Maximum capacity ( $E_{max}$ )	50 kg up to and including 750 kg
Minimum dead load	0 kg
Accuracy Class	C
Rated Output	2 mV/V $\pm$ 0,1 mV/V
Maximum number of load cell intervals (n) <sup>(1)</sup>	6000
Ratio of minimum LC Verification interval <sup>(1)</sup> $Y = E_{max} / V_{min}$	25000
Ratio of minimum dead load output return <sup>(1)</sup> $Z = E_{max} / (2 * DR)$	8000
Input impedance	400 $\Omega \pm$ 100 $\Omega$
Temperature range	-10 °C / +40 °C
Fraction $p_{LC}$	0,7
Humidity Class	CH
Safe overload	150 % of $E_{max}$
Output impedance	400 $\Omega \pm$ 100 $\Omega$

Recommended excitation	5 V AC / DC
Excitation maximum	15 V AC / DC
Transducer material	Aluminium
Atmospheric protection	Silicone rubber

Remark:

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

## 1.3 Essential shapes

Number	Pages	Description	Remark
11749/0-01	1	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 (2017) and:

- This certificate number TC11749 (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 reports:

- No. NMI-2234382-01 dated 16 December 2019 that includes 51 pages;
- No. NMI-2234382-02 dated 16 December 2019 that includes 46 pages.

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