

Issued by NMI Certin B.V.

In accordance with WELMEC 8.8 Issue 2, WELMEC 2.4 Issue 2, OIML R 60 (2000), OIML R 76 (2006). EN 45501:2015.

Producer Hottinger Baldwin Messtechnik GmbH
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.

Brand : HBM
Designation : PW4M...OP

Further properties are described in the annexes:

- Description TC11477 revision 0;
- Documentation folder TC11477-1.

An overview of performed tests is given in the annex:

- Description TC11477 revision 0.

Issuing Authority

NMI Certin B.V.

4 April 2019


C. Oosterman
Head Certification Board

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
11477/0-01	1	Load cell outlines	Mechanical
11477/0-02	1	Wiring diagram	Electrical

Cable:

- 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

Maximum capacity (E_{max})	300 g up to and including 1,5 kg	2 kg up to and including 5 kg
Minimum dead load	0 kg	
Accuracy Class	C	
Rated Output	1,0 mV/V \pm 0,1 mV/V or 2,0 mV/V \pm 0,2 mV/V	
Maximum number of load cell intervals (n) ⁽¹⁾	3000	
Ratio of minimum LC Verification interval ⁽¹⁾ $Y = E_{max} / V_{min}$	6000	10000
Ratio of minimum dead load output return ⁽¹⁾ $Z = E_{max} / (2 * DR)$	15000	5000
Input impedance	400 Ω \pm 100 Ω	
Temperature range	-10 $^{\circ}$ C / + 40 $^{\circ}$ C	
Fraction p_{LC}	0,7	
Humidity Class	CH	
Safe overload	150 % of E_{max}	
Output impedance	400 Ω \pm 100 Ω	

Recommended excitation	5 V AC / DC
Excitation maximum	10 V AC / DC
Transducer material	Aluminum
Atmospheric protection	Silicone rubber

Remarks:

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

1.3 Essential shapes

Number	Pages	Description	Remark
11477/0-01	1	Load cell outlines	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 (2000) and:

- This certificate number TC11477 (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 WELMEC 2, 2015 clause 10, at the time of putting into use.

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. NMI-2234387-01 dated 4 April 2019 that includes 51 pages;
- No. NMI-2234387-02 dated 4 April 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.