

Issued by NMI Certin B.V.

In accordance with WELMEC 8.8 Issue 2, Paragraph 8.1 of EN 45501:1992/AC:1993, OIML R51:2006, OIML R61:2004, OIML R76:2006, WELMEC 7.2 Issue 5, OIML D11:2004.

Producer Hottinger Baldwin Messtechnik GmbH
Im Tiefen See 45
D-64293 Darmstadt
Germany

Measuring instrument **Software**, tested as a part of a load cell equipped with electronics or an analog data processing unit.

Brand : Hottinger Baldwin Messtechnik
Designation : P6x or P7x

Further properties are described in the annexes:
Description TC8123 revision 0
Documentation folder TC8123-1

An overview of performed tests is given in the annex:
Description TC8123 revision 0

Issuing Authority

NMI Certin B.V.
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1 General information about the software

All properties of the software, whether mentioned or not, shall not be in conflict with the standard mentioned in the test certificate.

This Parts Certificate is the positive result of the applied voluntary, modular approach, for a component of a measuring instrument, as described in WELMEC guide 8.8. The complete measuring system must be covered by an EC type-examination Certificate.

1.1 Essential parts

Legally relevant parts named:

- Binary file programmed into an EEPROM.

1.2 Essential characteristics

Software specification (refer to WELMEC guide 7.2):

- Software type P;
- Risk Class B;
- Extension T.

Software specification (refer to OIML R76:2006 annex G):

- This software is intended for devices with embedded software.

The software does not need an operating system.

Legally relevant functions:

- Interface to process and transmit weighing data;
- Interface to receive and process tare, preset tare and zero commands;
- Rounding of weight values to the scale interval of the instrument;
- Output in verification scale intervals or in counts with a resolution higher than the verification scale interval;
- Semi-automatics zero-setting;
- Semi-automatic subtractive tare weighing;
- Changing between Gross or Net indication;
- Filtering;
- Determination stability of equilibrium;
- Indication of stable equilibrium in the output data;
- Zero indicator in the output data / function;
- Zero-tracking;
- Initial zero-setting;
- Linearization;
- Temperature compensation for zero and span;
- Creep compensation;
- Hysteresis compensation;
- Automatic calibration device: initiated at a fixed time interval or continuously;



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- Semi-automatic calibration device;
- The calibration mode is secured with a software seal. This software seal uses an event counter that contains a number that will be incremented each time any legally relevant parameter changes or calibration change is made and saved. The value of the event counter can be displayed on the primary display of the weighing instrument;
- Data encryption for Gross, Net and Tare (only used for receiving devices that can decrypt this data).

Legally relevant parameters (legal for trade parameters):

- Filter mode value;
- Output rate;
- Gross / Net;
- Tare value;
- Legal for trade mode;
- Measuring unit;
- Resolution / scale interval;
- Position of the decimal marker;
- Multi-range switch over point;
- Gravitation setting at the location of calibration;
- Gravitation setting at the location of installation;

Software protection:

- The software is protected against hardware memory faults by a checksum;

Software identification:

- The software has the identification number: P6x or P7x, where x is a number between 0 and 9 that represents the legally non-relevant changes.
- The identification number will be sent on the interface after the command [IDN?] in the form of "HBM, <type>,<serial number>,<software version number>";
- The software identification can be displayed on the primary display of the weighing instrument.

1.3 Essential shapes

In the countries where it is mandatory the hardware that contains this software shall bear this test certificate number: TC8123.

The hardware that contains this software shall have a descriptive markings plate where the reference number of the event counter at the time of verification can be fixed.

See document:

- Main functional blocks of AED and Scaling process fig. 1 and 2, document number 8123/0-01.

1.4 Conditional parts

The hardware that contains this software may be configured and calibrated with the software package AED_panel32. This software package shall not be used for legal applications.



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1.5 Non-essential parts

Non-legally relevant software and non-legally relevant parameters (see OIML R76:2006 paragraph 5.5).

The software may contain functions or programs that have non-essential properties, for example (but not limited to) invoice modules, database applications, maintenance information functions. These non essential software parts do not change the legally relevant characteristics of the instrument as fixed in this certificate.

2 Test reports, evaluation reports and pattern evaluation reports

An overview of performed tests is given in the reports:
No. 7056725 dated 4 February 2008 that includes 9 pages.