EU-type examination certificate

Number **T11383** revision 1
Project number 2352264

Issued by	NMi Certin B.V., designated and notified by the Netherlands to perform tasks with respect to conformity modules mentioned in Article 13 of Directive 2014/31/EU, after having established that the measuring instrument meets the applicable requirements of Directive 2014/31/EU, to:
Manufacturer	Shinko Denshi Co., Ltd. 3-9-11 Yushima, Bunkyo-ku Tokyo 113-0034 Japan
Measuring instrument	A **Non-automatic weighing instrument** Type : HT-N series Further properties are described in the annexes: – Description T11383 revision 1; – Documentation folder T11383-1.
Valid until	7 November 2028
Remarks	This revision replaces the earlier version, except for its documentation folder.
Issuing Authority	**NMi Certin B.V., Notified Body number 0122** 8 March 2019 C. Oosterman Head Certification Board

NMi Certin B.V.
Thijsseweg 11
2629 JA Delft
The Netherlands
T +31 88 6362332
certin@nmi.nl
www.nmi.nl

INSPECTION
RvA I 122

1 General information about the non-automatic weighing instrument

All properties of the non-automatic weighing instrument, whether mentioned or not, shall not be in conflict with the legislation.

1.1 Essential parts

The electronics;
The mechanical assembly with weighing cell.

See block diagram:

Number	Pages	Description	Remarks
11383/0-01	1	Block diagram	-

EMI protection measures:
- Ferrite on cable between the RS232C interface and ground;
- Ferrite on cable between the weighing cell and the HT-DP2 board.

1.2 Essential characteristics

Accuracy class	(I)
Maximum capacity	Max ≤ 220 g Max ≤ 1100 ct
Verification scale interval	e ≥ 0,001 g e ≥ 0,01 ct
Actual scale interval	e= d, e= 2d, e= 5d or e= 10d
Weighing range	Single interval
Maximum number of scale intervals	n ≤ 220000 divisions
Tare	T ≤ -Max
Temperature range	+10 °C / +30 °C
Power supply voltage	AC/DC adapter of 100 – 240 V AC 50/60 Hz to 12 V DC
Software identification Checksum	28AB or EF03

The software identification is displayed at start-up.

The non-automatic weighing instrument has embedded software.

1.3 Essential shapes

Number	Pages	Description	Remarks
11383/0-02	1	View of components	-
11383/0-03	1	External view	-

The data plate is secured against removal by sealing or will be destroyed when removed.

Inside the cabinet is a protect switch, located on the HT-DP2 board.

1.4 Conditional parts

The non-automatic weighing instrument may be equipped with peripheral equipment which is used for the applications listed in Article 1(2), (a) to (f) of Directive 2014/31/EU, provided that the peripheral equipment is certified to be connected to a non-automatic weighing instrument by a Notified Body responsible for type examination under Directive 2014/31/EU, or, that the equipment and the use of the equipment complies with the requirements of WELMEC 2.5 Issue 2 clause 2.2.

The non-automatic weighing instrument is fitted with a levelling device and a level indicator. A ring on the level indicator indicates when the maximum tilt is exceeded.

1.5 Non-essential parts

The non-automatic weighing instrument may be connected to non-essential devices, for example but not limited to bar code readers, foot switches, second displays and cash drawers, provided that:
- They do not present primary data used for purposes mentioned in Article 1(2), (a) to (f) of Directive 2014/31/EU unless the "Preliminary observation" in Annex I of the Directive is satisfied;
- They do not lead to an instrument having other essential characteristics than those fixed by this certificate.

Other non-essential parts:
- Label printer.

2 Information about the main constituent parts of the non-automatic weighing instrument

2.1 The electronics

2.1.1 Essential parts

Number	Pages	Description	Remarks
11383/0-04	2	HT-IO board: Power / interface board	Drawing and IC list
11383/0-05	2	HT-DP2 board: Main board	Drawing and IC list
11383/0-06	2	HT-BME board: Temperature, pressure and humidity sensor board	Drawing and IC list

2.1.2 Essential characteristics

List of legally relevant functions:
- Determination stability of equilibrium;
- Zero indicating;
- Semi-automatic zero-setting;
- Initial zero-setting;
- Zero-tracking;
- Semi-automatic subtractive tare balancing;
- Semi-automatic subtractive tare weighing;
- Preset tare;
- Adjusting the value of internal weight via switch on the HT-DP2 board (only for models with internal adjustment weight);
- Automatic span adjustment with internal adjustment weight (optional and only for models with internal adjustment weight), operational:
  - after switch on
  - when $\Delta t \geq 5$ °C
  - every 4 hours.
- Semi-automatic span adjustment with internal adjustment weight (only for models with internal adjustment weight);
- Semi-automatic span adjustment with external adjustment weight;
- Acting upon significant faults;
- Checking the display;
- Weight unit selection (g, mg, ct);
- Inputting and adjusting the error of the external adjustment weight;
- Switching between gross and net indication;
- Auxiliary indicating (optional), resolution 1/10 e, 1/5 e or 1/2 e;
- Indications other than primary indications;
- Adjustment and set-up mode via switch on the HT-DP2 board;
- Totalisation.

2.1.3 Essential shapes

See 2.1.1.

2.1.4 Conditional parts

The non-automatic weighing instrument may be equipped with one or more of the following protective interfaces that have not to be secured:
- RS232.

AC/DC adapter:
- Brand: ENG ELECTRONIC CO., LTD.;
- Model: 6A-121WP12;
- Input: 100-240V AC 50/60 Hz;
- Output: 12 V DC.

2.1.5 Non-essential parts

Display;
Keyboard.

2.1.6 Non-essential characteristics

Check weighing mode (comparator function);
Percentage weighing mode;
Piece counting mode;
Specific gravity mode.

2.2 The mechanical assembly with weighing cell

2.2.1 Essential parts

Number	Pages	Description	Remarks
11383/0-07	1	HTR/HT/AT mechanical unit	-

2.2.2 Essential characteristics

$e \geq E_{max}/ 220000$, the instrument is equipped with a tuning fork weighing cell (frequency sensing method).

2.2.3 Essential shapes

See 2.2.1.

3 Seals

To secure components that may not be dismantled or adjusted by the user, the non-automatic weighing instrument has to be secured in a suitable manner on the locations indicated in the drawing:

Number	Pages	Description	Remarks
11383/0-03	1	External view	-

Semi-automatic span adjustment with external adjustment weight can be disabled (sealed) by factory settings.

4 Conditions for conformity assessment

The marks, facilities for the marks and the inscriptions on the non-automatic weighing instrument fulfil the requirements of point 1 of Annex III of Directive 2014/31/EU.