



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA VISOKO ŠOLSTVO, ZNANOST IN TEHNOLOGIJO
URAD RS ZA MEROSLOVJE

ES CERTIFIKAT o odobritvi tipa merila
EC type approval certificate

št. /No. **SI 07-05-002** 2. revizija 2nd revision

Neavtomatska tehtnica, tip H111, H141, H241, H341, H511, H541, H611, H711, H741
Non-automatic weighing instrument, type

Certifikat izdal
Issued by

Urad RS za meroslovje
Metrology Institute of the Republic of Slovenia (MIRS)
Grudnovo nabrežje 17
SI – 1000 Ljubljana, Slovenija

Priglašen organ št. 1376
Notified body No.

na podlagi
in accordance with

1. odstavka 9. člena Zakona o meroslovju (Ur. list RS, št. 26/05) in 17. člena Pravilnika o meroslovnih zahtevah za neavtomatske tehtnice (Ur. list RS, št. 97/03), ki povzema vsebino Direktive Sveta 90/384/EGS, ki je bila dopolnjena z Direktivo Sveta 93/68/EGS.

Act on metrology (OG of RS, No. 26/05), Article 9, Paragraph 1, and Rules on metrological requirements for NAWI (OG of RS, No. 97/03), Article 17, which implement Council Directive 90/384/EEC as amended by Council Directive 93/68/EEC.

izdano vložniku
issued to

Shekel Electronic Scales
Kibbutz Beit Keshet
M.P. Lower Galilee
15247 Israel

za
in respect of

Neavtomatska elektronska tehtnica namenjena za ugotavljanje mase v medicini za tehtanje pacientov. Enoobmočna, z eno vrednostjo razdelka.
Non-automatic electronic weighing instrument designed primarily for determination of mass in the medicine for weighing patients. Single range, single interval.

Točnostni razred (III)

Accuracy class

12 kg ≤ Max ≤ 220 kg

e ≥ 5 g

n ≤ 2400

veljavnost do
valid until

23. 2. 2017

Glavne značilnosti, pogoji in omejitve so podani v prilogi, ki je sestavni del tega certifikata in obsega 5 strani.

The principal characteristics, approval conditions and special conditions, if any, are set out in the Appendix hereto, which forms part of the approval documents and consists of 5 pages.

Štev. certifikata: 6413-9/2008/4
Ljubljana, 25. 04. 2008

Postopek vodil:

mag. Gašper Vindišar
višji svetovalec



dr. Nineta Majcen
direktorica



Annex to 2nd revision of EC type-approval certificate No. SI 07-05-002, page 1 of 6 pages
dated 25. 04. 2008

1. Name and type of instrument

Non-automatic electronic weighing instrument designed primarily for determination of mass in the medicine for weighing patients.

| <i>Type</i> | <i>Product</i> |
|-------------|---------------------------------------|
| H111 | Stand-on scale |
| H141 | Physician scale |
| H241 | Physician heavy duty scale (Handrail) |
| H341 | Wheelchair scale |
| H511, H541 | Chair scale |
| H611 | Baby scale |
| H711, H741 | Veterinary scale |

Instruments aforesaid may be submitted to the procedures considered in articles 2 and 3 of the Annex II of the Directive 90/384/EEC by manufacturers other than applicant, e.g. also the following manufacturers with appropriate manufacturer's marks and same designations:

Baillehaiche, 44 Rue Lecoufle, 35400 St Malo, France

Ouest-matic, ZAC de Kerniol, 16 Rue des frères Lumière, 56000 Vannes, France

2. Description of the instrument

2.1. Mechanical set-up

The instrument consists of:

- electronic indicator,
- load cell(s),
- mechanical construction with connecting elements.

The following indicators are used:

- Inbar, producer Shekel, Test Certificate No. TC6979 (Notified Body No. 0122),
- Inbar2, producer Shekel, Test Certificate No. SI 07-05TC-001 (Notified Body No. 1376).

Basic set-up of the indicator, permissible functions and devices, conditions and restrictions are given in the respective test certificate.

The electronic indicator is attached to or built into the mechanical construction of the instrument and connected to the load receptor via a cable. The load receptor is constructed with direct force introduction into one or more load cells. In the case of more load cells, a load cell junction box is used. The load receptors are equipped with a level indicator (bubble), which meets the requirements of EN 45501, No. 3.9.1.1, and with a levelling device.





Annex to 2nd revision of EC type-approval certificate No. SI 07-05-002, page 2 of 6 pages
dated 25. 04. 2008

| Type | No. of LC | Remarks |
|-------------------------------|-----------|---|
| H111 (Stand-on scale) | 4 | |
| H141 (Physician scale) | 1 | supported or stand alone indicator |
| H241 (Handrail scale) | 4 | |
| H341 (Wheelchair scale) | 4 | supported or stand alone indicator |
| H511, H541 (Chair scale) | 1 | seat - shaped load receptor with feet and hand support, two small rear wheels |
| H611 (Baby scale) | 1 | a plastic or acrylic tray of different shapes |
| H711, H741 (Veterinary scale) | 4 | |

The instruments are shown on Figures 1 to 8.

2.2. Electrical function

The indicator supplies the load cells with DC voltage. The analogue measuring signal of the load cell is amplified, AD-converted and processed by the CPU into the weight value and indicated on the display. The weight value and other data may also be transmitted to additional devices (e.g. printer, PC) through the data interface. Power supply: 9 V DC adapter or batteries.

2.3. Permissible functions and devices

- Zero indicating device
- Semi-automatic zero-setting device
- Automatic zero-setting device
- Initial zero-setting device
- Zero-tracking device
- Semi automatic tare device
- Preset tare device
- Device of weighing unstable samples, for example animals
- Memory storage device
- Determination stability of equilibrium
- Indication of stable equilibrium
- Adjustment / set-up mode via a switch in the main board
- Acting upon significant faults
- Checking the display
- Totalization





Annex to 2nd revision of EC type-approval certificate No. SI 07-05-002, page 3 of 6 pages
dated 25. 04. 2008

3. Technical characteristics

3.1. Metrological data

| | | | | | | | | | |
|---------------------------------|------------------|--------|--------|--------|-------|--------|-------|-------|--------|
| Type | H611 | H141 | H241 | H341 | H511 | H541 | H111 | H711 | H741 |
| Accuracy class: | (III) | | | | | | | | |
| Max (kg) | 12 | 200 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| Min (kg) | 0,1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| e (g) | 5 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Tare (subtractive) | - 100 % Max | | | | | | | | |
| Initial zero setting range (kg) | 0,6 | 10 | | | | | | | |
| Temperature range | 0 °C ... + 40 °C | | | | | | | | |
| Indicator type | Inbar | Inbar2 | Inbar2 | Inbar2 | Inbar | Inbar2 | Inbar | Inbar | Inbar2 |

3.2. Load receptors and load cells

| Producer | Type | E _{max} | Class | Test certificate | Built in type |
|------------------|-------|------------------|-------|--------------------|------------------------------|
| Vishay-Tedea | 1042 | 15 kg | C3 | TC2949 | H611 |
| Zemic | L6E | 300 kg | C3 | D09-03.21 | H141 |
| Vishay-Tedea | 1028 | 75 kg | C3 | TC7139 | H241, H341, H111, H711, H741 |
| Beijing True Tec | PA06 | 75 kg | C4 | R60/2000-CN1-06.10 | H241, H341, H111, H711, H741 |
| Vishay-Tedea | 1263 | 300 kg | C3 | TC6092 | H541, H511 |
| Youngzon | YZ108 | 300 kg | C3 | R60/2000-CN-03.06 | H141, H541, H511 |

3.3. Technical documentation

The technical documentation filed at MIRS cases No. 6413-01/2007, No. 6413-10/2007 and No. 6431-09/2008 is valid for the instruments described here.

4. Interfaces, peripheral devices and software

4.1. Interfaces

RS232 interface may be incorporated.

The interface stated is protective within the meaning of EN 45501, No. 5.3.6.1, and need not be protected.

4.2. Peripheral devices

For applications subject to Article 1.2(a) of the directive 90/384/EEC the instrument may be connected to:

- Peripheral devices for which suitability for connection to weighing instruments with EC type-approval has been proved by a test certificate (or test report or certificate). The test certificate must have been issued by a Notified Body as defined in Directive 90/384/EEC.



Annex to 2nd revision of EC type-approval certificate No. SI 07-05-002, page 4 of 6 pages
dated 25. 04. 2008

- Simple peripheral devices which only receive data, without test certificate (or test report) and without reference in an EC type-approval certificate, provided the conditions of WELMEC-document 2.5 (2000), section 3.3, are met.

4.3. Software

The software has its identification number 11007, which is displayed at start-up.

5. Approval conditions

All properties of the non-automatic weighing instrument, whether mentioned or not, may not be in conflict with the essential requirements from Annex I of the directive 90/384/EEC.

The load cells must be protected against overloading (overload protection, sufficient great nominal load of the load cells etc.).

6. Special conditions for EC verification

Documents required for EC verification:

- EC type-approval certificate with Annex,
- the test certificates of modules and peripheral devices if necessary,
- operating instructions.

Instruments may be verified at the manufacturer's or at another place. The regulations of Paragraph 5 of Annex II of the directive 90/384/EEC are to be observed. If the complete EC verification is carried out at the manufacturer's for another place of installation, the place or zone respectively for which the verification is valid is to be stated for each instrument, for example in the operating instructions.

7. Sealing

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

To secure components that may not be dismantled or adjusted by the user, the instrument has to be secured by either a wire and lead seal or tamper evident label and securing mark. The securing mark has to bear either:

- a mark of the manufacturer laid down in a notified body approved quality system (Annex II of the directive 90/384/EEC), or
- an official mark of a Member State of the EEC, or an other party to the EEA agreement.

It is necessary to secure:

- two screws on the back side of the indicator (see the applicable test certificate for details),
- the connection edge of the front and back cover of Inbar2 indicator, and
- screws, which fix load cell(s) to the instrument's framework, or
- junction box for load cells, if present.





Annex to 2nd revision of EC type-approval certificate No. SI 07-05-002, page 5 of 6 pages dated 25. 04. 2008

In order to prevent unauthorized adjustment of the instrument a jumper on position W1 on the main board (Inbar) / connection board (Inbar2) must be shortened.

8. CE mark and inscriptions

The markings and inscriptions shall fulfil the requirements of Paragraph 1 of Annex IV of the directive 90/384/EEC.

The location of the data plate, CE marking and Green M is on the indicator or other easily accessible and clearly visible location in regular operating position of the instrument.





9. Illustrations

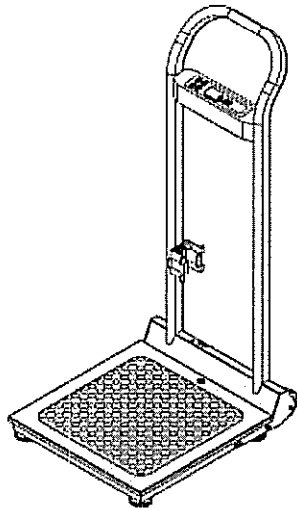


Figure 1: Type 111.

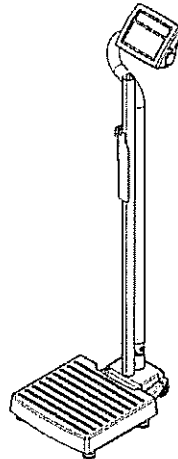


Figure 2: Type 141.

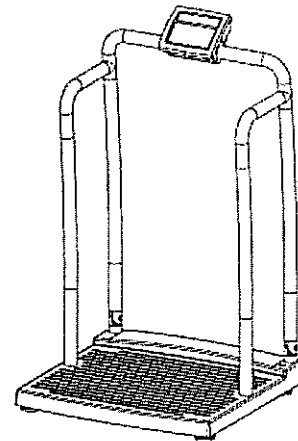


Figure 3: Type 241.

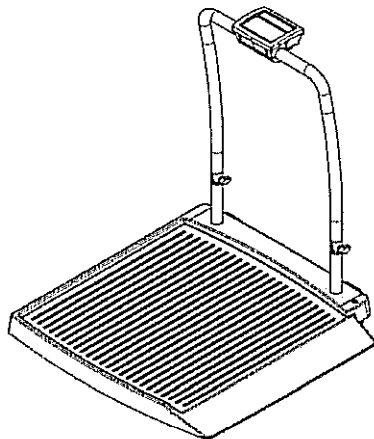


Figure 4: Type 341.

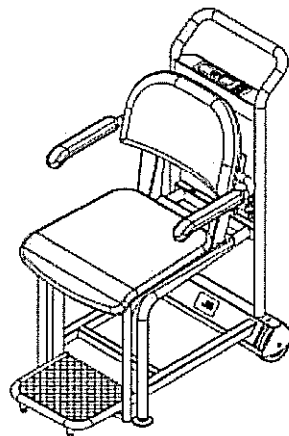


Figure 5: Type 511.

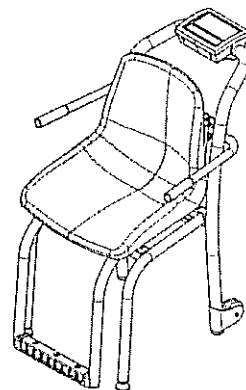


Figure 6: Type 541.

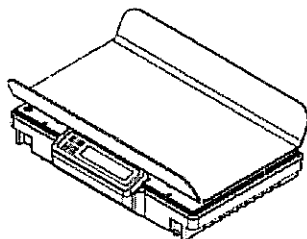


Figure 7: Type 611.

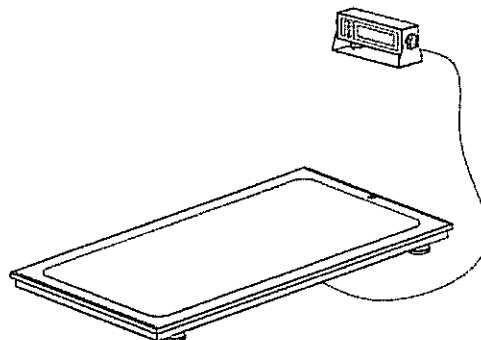


Figure 8: Type 711
(741 differs from 711 only in the indicator).

