

# Český metrologický institut

Notifikovaná osoba č. 1383, Okružní 31 638 00 Brno

# EC TYPE-APPROVAL CERTIFICATE

Number: TCM 128/10 - 4760

**Revision 1** 

This revision replaces all previous versions of this certificate in full wording.

Issued by:

Český metrologický institut

Okružní 31 638 00 Brno Česká republika

Notified Body:

1383

In accordance with:

point 1 of annex 2 to Government Order No. 326/2002 Coll. from 19. June 2002 that lays down technical requirements on non-automatic weighing instruments and

implements in Czech Republic Council Directive 2009/23/EC – codified version of

Directive 90/384/EEC.

Manufacturer:

Soehnle Industrial Solutions GmbH

(Applicant)

Manfred-von-Ardenne-Allee

71522 Backnang

Germany

In respect of:

non-automatic weighing instrument

class III

Type: 773x

Max 6 kg .... 300 kg

 $n \le 3000$ e = Max/n

Temperature range +10°C / + 40°C

Valid until:

1 July 2020

Document number:

0115-CS-A026-10

Description:

Essential characteristics, approved conditions and special conditions, if any, are

described in this EC type-approval certificate. This certificate contains 6 pages.

RNDr. Pavel Klenovský Notified body No. 1383

Date of issue: 12 December 2014

# 1. Characteristic of the weighing instrument

It is a self-indicating non-automatic weighing instrument with digital indication designed as a platform scale with a load receptor without any lever works. The instrument is intended for weighing of persons in health service. It may be performed as a multi interval or multi range instrument.

# 1.1 Main metrological characteristic

Accuracy class

Max =

6kg ......300 kg

 $n_e \le$ 

3000

e = d =

Max/n

Temperature range

+10°C/+40°C

# 1.2 Construction of main parts

The platform consists of metal with 4 directly mounted load cells. The load cells have adjustable feet for levelling. The display is performed as a LED device. The appearance of the top front panel of the model 7732 may be change regarding colours and printing; there may be then the logo of a different company, but the design will be untouched.

The performance of the instrument can vary depending on model:

- 7730 the indicator is placed on a aluminium stand
- 7732with a very short stand
- 7731 the indicator is placed on a longer stand and the instrument is equipped with a digital height meter to measure the body height. Also the BMI value can be displayed beside the weighing value and the height.

#### 2. Main characteristic and functions

# 2.1 Multi usage of the display and higher resolution

Indication of no weight values with corresponding sign (e.g. height of a person, BMI value, calibration data setting, inputs, error codes etc.)

Access to a higher resolution via F-button. Displayed values are blinking without unit "kg".

# 2.2 Memory device

This mode can be selected in service mode in E-Cal area. Data storage is performed after detection of standstill condition only. If active, every measured weight value is to be sent out via interface if its value is higher than a selectable limit (default = 20e) and if standstill condition is valid.

To check the contents of the alibi memory you have to press the F-button and then the Reset button while holding the F-button; all data of the memory will then be transferred. The weight values are marked by the identifier and a running number.

#### 2.3 Zero setting and zero tracking device

Semi automatic zero device 4% of Max,(via F-button) Zero tracking device 0.5 d/s Initial zero setting 50% of Max

#### 2.4 Tare device

Subtractive up to Max; Semi automatic tare device (via F-button), the range is between positive end of zero setting range and Max, weighing values are indicated by "N" on the display.

# 2.4.1 Tare Input Device

Tare values may be entered via buttons or interface.



### 3. Composition of modules (load cells)

The platform has 4 directly mounted load cells. The load cells have adjustable feet for levelling. Following load cells are used: Soehnle Professional GmbH, SEB 23B-150-C3,  $E_{max}$  150 kg. The characteristics of the load cell such as nlc, Y, Z meet the requirements for the desired scale characteristic.

Alternatively any load cells may be used providing the following conditions are met:

- There is a respective test certificate (EN 45501) or an OIML Certificate of Conformity (R60 (1991 or 2000)) issued for the load cell by a Notified Body responsible for type examination under Directive 90/384/EEC.
- The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules (WELMEC 2, Issue 3, 2000, No. 11), and any particular installation
- A load cell marked NH is allowed only if humidity testing to EN 45501 has been conducted on this load cell
- The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in the above WELMEC 2 document, at the time of EC verification or declaration of EC conformity of type
- The load transmission must conform to one of the examples shown in the WELMEC Guide for load cells.

# 3.1 Electrical Specification

Supply voltage: 100-240 V AC 50-60Hz

or 6V ~ 12V DC

Excitation voltage load cell 5 V DC

Input measurement voltage 0mV.....80mV

Smallest input signal per verification value "e":  $0.5\mu V/e$ 

Load cell impedance for both measuring modules:  $87\Omega$  up to  $1200 \Omega$ 

Connection of load cells 4 or 6-wires

#### 4. Interfaces

Following interfaces can be used: RS232, USB, Bluetooth, WLAN and Ethernet. All interfaces comply with EN 45501, paragraph 5.3.6.1 and do not need to be secured. Display readings is transferred via interface and weighing functions may be released (i.e. tare function). Configuration and calibration can be performed via interface.

# 5. Peripheral devices

The instrument can be equipped with peripheral devices used for applications mentioned in 1.2(a) of the Directive 90/384/EEC providing that such devices are approved for connection to non-automatic weighing instruments having EC type approval certificate issued by a notified body under the Directive 90/384/EEC. The instrument shall be equipped by a level indicator with sensitivity at least 2 mm at 2/1000 except those freely hanging, firmly installed and complying with requirements for tilting up to 5 % in any direction.

#### 6. Non-essential devices

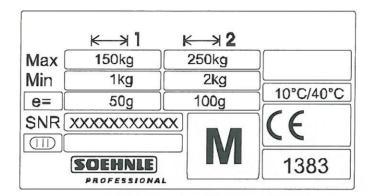
The non-automatic weighing instruments may be connected to non-essential devices, provided that:

- They do not present primary data used for purposes mentioned in the article 1(2)(a) of the EC Directive 90/384/EEC unless the "preliminary observation" in the Annex 1 of this directive is satisfied.
- They do not lead to an instrument having other essential characteristic than those fixed by this type approval certificate.

# 7. Securing components and verification marks

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 relevant drawings (see Y-8616).

All verification relevant data are stored in a non-volatile memory (EEPROM). The access on this memory is protected by the verification counter. The identification plate on the housing is carrying all verification data of the instrument as well as the verification mark (see drawing Y-8617 bellow).



Y - 8617

Additionally there is a clear-sightedness pocket which may be closed and secured by a verification mark. In this pocket you will find the last value of the software controlled verification counter. This verification counter will be incremented after each write access on the EEPROM to modify the verification data. Every time it is possible to check the validity of the verification or if there was any manipulation by short interrupt of the power supply without disassembling or opening of the instrument. During power on procedure the reading is showing for a short time the value of the verification counter ("E n"). All identification plates and marks will be destroyed by removing.

The securing components have to bear either:

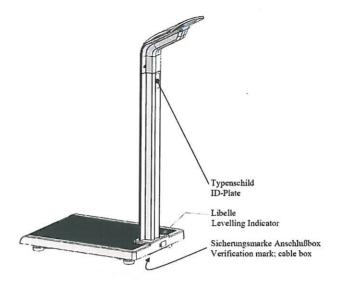
- a mark of the manufacturer laid down in a notified body approved quality system (Annex II of the EC Directive 90/384/EHS)
- an official verification mark used of the relevant notified body

#### 8. CE-mark of conformity and inscription

The marks, facilities for the marks and the inscriptions on the non-automatic weighing instruments must fulfill the requirements of the Annex 4 of the EC Directive 90/384/EEC.

Close to the primary indication the values of Max, Min, and e must be placed.



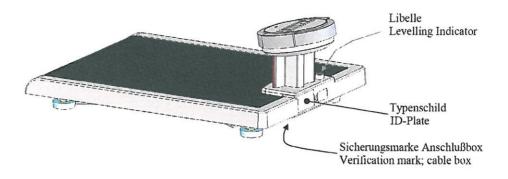


**Model 7730** 



**Model 7731** 





**Model 7732** 

