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**V 3112**

**Notified Body No. 1383**

# EC TYPE-APPROVAL CERTIFICATE

## Number: TCM 128/12 - 4961

### Revision 3

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

| | |
|---|---|
| **In accordance:** | with Directive 2009/23/EC of the European Parliament and of the Council as amended – codified version of Directive 90/384/EEC implemented by Government Order No. 326/2002 Coll. as amended, that lays down technical requirements on non-automatic weighing instruments. |
| **Manufacturer:** | Soehnle Industrial Solutions GmbH<br>Manfred-von-Ardenne–Allee<br>71522 Backnang<br>GERMANY |
| **For:** | non-automatic weighing instrument<br><br>Type: 37xx<br><br>Accuracy class (III) or (IIII)<br><br>Max ≤ 100 t<br><br>$n \leq 10000$ or $n \leq 1000$ for class (IIII)<br><br>$e = \mathrm{Max}/n$<br><br>Temperature range -10°C / + 40°C |
| **Valid until:** | 19 July 2022 |
| **Document No:** | 0511-CS-A026-12 |
| **Description:** | Essential characteristics, approved conditions and special conditions, if any, are described in this certificate. |
| **Date of issue:** | 12 December 2014 |

**Certificate approved by:**

RNDr. Pavel Klenovský

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This certificate was issued according to EC type-examination according to point 1 of annex II to Directive 2009/23/EC of the European Parliament and of the Council - codified version of 90/384/EEC or point 1 of annex 2 to Government Order 326/2002 Coll., respectively.

## 1. Characteristic of the weighing instrument

It is a self-indicating non-automatic weighing instrument with digital indication designed as weighbridges, platform scales, hopper scales, hanging scales without any lever works as described in the WELMEC 2.4 (issue August 2, 2001) and seat scale for weighing persons in health service. The instrument can operate as price-labeling instrument ( EN 45501 4.17 ). It may be performed as a multi interval or multi range instrument. The instrument shall comply with Soehnle Professional design documentation mentioned in the list Y-8859.

### 1.1 Main metrological characteristic

| | |
|---|---|
| Accuracy class | (III) |
| Max $\leq$ | 100 t |
| $n_e \leq$ | in accordance with used modules (with maximum 10000) |
| e = d = | Max/n |
| Temperature range | -10°C / + 40°C |

| | |
|---|---|
| Accuracy class | (IIII) |
| Max $\leq$ | 100 t |
| $n_e \leq$ | 1000 |
| e = d = | Max/n |
| Temperature range | -10°C / + 40°C |

## 2. Construction of main parts

Indicating and processing unit
Load receptor
Load cells

### 2.1 Indicating and processing unit

| Manufacturer | Type | Test Certificate |
|---|---|---|
| SOEHNLE PROFESSIONAL GmbH + Co. KG | 37xx | ZR 128/12-0086 |

### 2.1.1 Main characteristics

The main characteristics of the indication and processing unit are mentioned in the Test certificate
No. ZR 128/12-0086 (see 2.1 above).

The performance is evident from drawings Y-8870.
The load receptor of the seat scale is designed for weighing of persons while seated.
For the seat scale according drawing Y-8879 there are 4 directly mounted load cells in the chair construction.
Other constructions of seat scales use load receptors without any lever works as described in the WELMEC 2.4 (issue August 2, 2001).

## 3. Composition of modules (load cells)

The characteristics of the load cell such as nlc, Y, Z shall meet the requirements for the desired scale characteristic and requirements set up in 4.12.1 to 4.12.3 of EN 45501.

The instrument performed as a seat scale according drawing Y-8879 is equipped with load cells **type SC088** having following characteristic:

| | | | |
|---|---|---|---|
| **Maximum capacity ($E_{max}$)** | kg | 50 / 75/ 100 / 150 / 200 / 250 | |
| **Rated output ($C_n$)** | mV/V | $2 \pm 0{,}2$ | |
| **Accuracy class** | | C1.5 | C3 |
| **Max. number of intervals ($n_{LC}$)** | | 1500 | 3000 |
| **Min. verification interval ($v_{min}$)** | | $E_{max} / 3000$ | $E_{max} / 6000$ |
| **Min. dead load output return ($DR = {}^1/_2\, E_{max} / Z$)** | | ${}^1/_2\, E_{max} / 1500$ | ${}^1/_2\, E_{max} / 3000$ |
| **Non-linearity** | % $C_n$ | $\pm 0{,}017$ | $\pm 0{,}017$ |
| **Repeatability** | % $C_n$ | $\pm 0{,}010$ | $\pm 0{,}010$ |
| **Temp. Effect on sensitivity** | % $C_n$ / 10K | $\pm 0{,}030$ | $\pm 0{,}022$ |
| **Temp. Effect on zero** | % $C_n$ / 10K | $\pm 0{,}046$ | $\pm 0{,}023$ |
| **Safe overload** | % $E_{max}$ | 150 | |
| **Ultimate overload** | % $E_{max}$ | 300 | |
| **Zero balance** | mV/V | $\pm 0{,}2$ | |
| **Nominal temperature range** | °C | + 10 ... + 40 | |
| **Operating temperature range** | °C | - 30 ... + 65 | |
| **Input resistance** | Ω | $380 \pm 15$ oder / or $540 \pm 20$ | |
| **Output resistance** | Ω | $380 \pm 30$ oder / or $540 \pm 40$ | |
| **Insulation resistance** | GΩ | $\geq 5$ | |
| **Excitation, recommended** | V | 5 ... 10 | |
| **Excitation, maximum** | V | 15 | |
| **Material** | | Aluminium | |
| **Protection class (EN 60 529)** | | IP 65 | |
| **Cable length for 4-wires connection** | m | $\leq 1$ | |

Other instruments covered by this certificate may use any load cells 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 2009/23/EC.
- 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.

## 4. Interfaces

Following interfaces can be used: RS232, USB, Bluetooth, WLAN, Ethernet and Fieldbus (e.g. Profibus, Profinet; Ethernet IP etc). 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 2009/23/EC 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 2009/23/EC.

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.

A POS (Point of Sales) (Welmec 2.2 Guide for Testing Point of Sale Devices) may be connected to the instrument under the following conditions:
- The POS has a Test Certificate  issued by a Notified Body appointed to certify instruments according to paragraph 1 of Annex II of the Directive 2009/23/EC
- If the POS has a preset tare function it shall carry out this function autonomously and this function shall be in conformity with EN 45501(only  needed if the instrument has no preset tare function).
- The connection shall be made in such a way that the weight indication, the unit price and price-to-pay indications are positioned adjacent to each other.

## 5.1 Instrument designed as seat scale

Leveling plates are used to compensate an unleveled floor. The wheels are fixed with the wheel lockers during weighing.

## 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 Directive 2009/23/EC 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 Test certificate ZR 128/12-0086.

For the identification of the load receptor by the indicator, in each load receptor an ident-chip may be installed.

Load cell and ident-chip form an unit.

In this case the load cell terminals (see Y-8872) aren't secured by a verification mark.

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 Directive 2009/23/EC)
- an official verification mark used of the relevant notified body

## 7.1 Junction box (for load cells)

If a junction box exists it shall be secured.

## 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 Directive 2009/23/EC.

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

## Drawings:

Data plate (example):

| | 1 | 2 | 3 |
|---|---|---|---|
| Max | 15kg | 30kg | 60kg |
| Min | 100g | 200g | 400g |
| e= | 5g | 10g | 20g |

benannte Stelle
notified body

-10°C/+40°C

CE    XXXX    M    SOEHNLE PROFESSIONAL    37xx

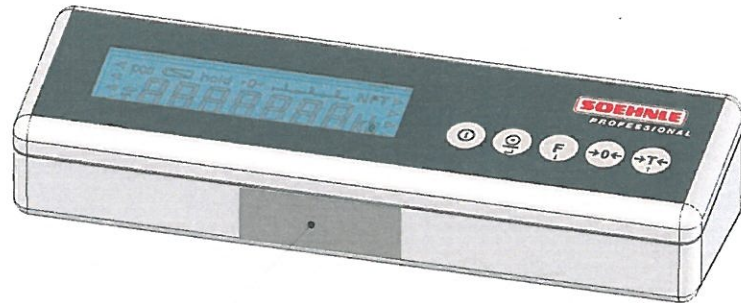(III)   TCM 128/12-4961   SNR XXXXXXXXXXX

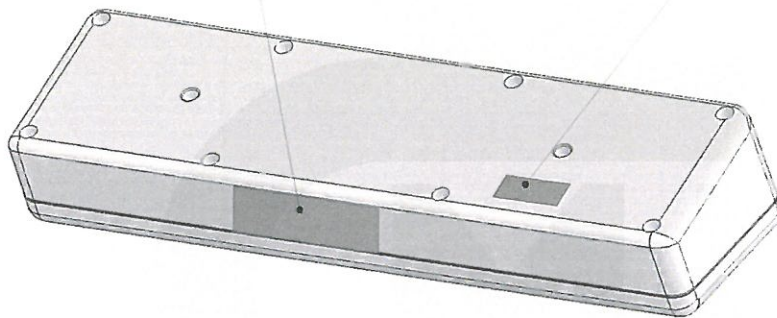Indicator 372x



Indicator 371x



Drawing Y-8870
Front panel (top view)

Alternative main label position:

Typenschild
IC-Plate

Tasche für Eichzähler
Case for calibrating meters
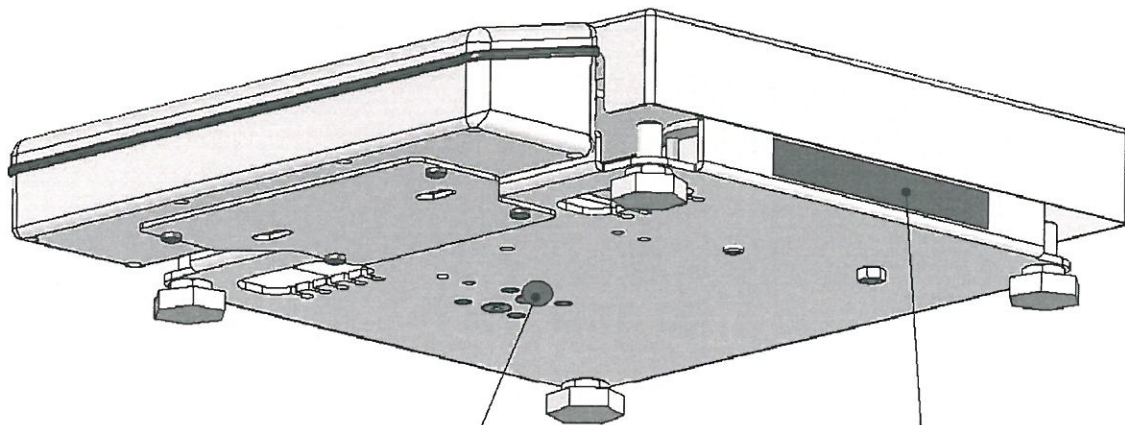
Eichmarke
Verification Mark
Wägezellen Befestigung / Load Cell fixation

Typenschild
IC-Plate