



OIML Member State
Denmark

OIML Certificate of Conformity No.
R76/2006-A-DK2-2022.09

OIML CERTIFICATE ISSUED UNDER SCHEME A

OIML Issuing Authority

Name: **FORCE Certification A/S**
Address: Park Allé 345, 2605 Brøndby, Denmark
Person responsible: Leif Madsen

Applicant

Name: **Tscale Electronics Mfg. (Kunshan) Co., Ltd.**
Address: No. 99 Jingwei Road,
Zhoushi, Kunshan, Jiangsu
CHINA

Manufacturer **Tscale Electronics Mfg. (Kunshan) Co., Ltd.**

Identification of the certified type (*the detailed characteristics will be defined in the additional pages*)

PE10-PC / P10b-PC / P10e-PC / P10s-PC / P15-PC / P15-F-PC / P18-PC / L10-PC / L15-PC / QP50-PC

Designation of the module (*if applicable*)

Non-automatic electronic weighing module

This OIML Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML type evaluation report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML R 76-1, Edition (year): 2006

For accuracy class (if applicable): **III or IIII**

This OIML Certificate relates only to metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML Recommendation identified above.

This OIML Certificate does not bestow any form of legal international approval.

The conformity was established by the results of tests and examinations provided in the associated OIML reports:

Type examination report: No. 119-31559.10 dated 13 January 2020, 94 pages

Type examination report: No. 120-27147.10 dated 29 July 2020, 69 pages

Type examination report: No. 121-29605.10 dated 18 October 2021, 25 pages

Type evaluation report: No. 121-29605.90.20 dated 11 October 2022, that includes 17 pages

The technical documentation relating to the identified type is contained in documentation file:

121-29605

OIML Certificate History

Revision No.	Date	Description of the modification
Initial version	20 October 2022	-

Identification, signature and stamp

The OIML Issuing Authority

FORCE Certification A/S

Date: 20 October 2022

Jens Hovgård Jensen

Certification Manager

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate is issued, partial quotation of the Certificate and of the associated OIML type evaluation report(s) is not permitted, although either may be reproduced in full.

Descriptive annex

1. Name and type of instrument

The non-automatic weighing modules are designated PE10-PC / P10b-PC / P10e-PC / P10s-PC / P15-PC / P15-F-PC / P18-PC / L10-PC / L15-PC / QP50-PC. The modules consist a load receptor with one load cell, an electronic A/D board with embedded software, power supply and a printer all build into a desktop scale enclosure. All models have a touch screen display to be used as operator interface, either place on a pole or in front of the desktop scale enclosure. Some of the models have a second display screen to be used as customer display.

The modules also contain a Windows motherboard with Windows 7 or 10. This board is like the display screens not used by the module but is intended to run the weighing application of the complete desktop scale.

The name of the modules may be followed by alphanumeric characters for technical, legal or commercial characterization of the module.

The modules are intended for scales used to direct sales to the public.

2. Description of the construction and function

1.1 Construction

The non-automatic weighing modules are housed in an enclosure made of ABS and have a steel plate as load receptor

The L10-PC / L15-PC / QP50-PC models can have a built-in barcode scanner.

Models' displays.

Model	Operator touch screen	Separate customer display
PE10-PC	10"	7"
P10b-PC	10"	10"
P10e-PC	10"	10"
P10s-PC	10"	
P15-PC	15"	15"
P15-F-PC	15"	
P18-PC	18"	
L10-PC	10"	10"
L15-PC	15"	15"
Q50-PC	13"	13"

The A/(D-board communicate with the Windows motherboard via a RS232 connection using *T-Scale AD board communication protocol*, version 2021/12/6.

2.1 Devices

The family of modules may have the following devices:

- Initial zero-setting device ($\leq 20\%$ Max)
- Semi-automatic zero-setting device ($\leq 4\%$ Max)
- Zero tracking device ($\leq 4\%$ Max)
- Semi-automatic subtractive tare weighing device
- Pre-set tare device
- Determination of stability of equilibrium
- Determination of zero
- Single interval, multi-range and multi-interval functions
- Gravity compensation
- Determination of battery voltage function
- Touch screen display(s)

2.2 Software

The certified version of the A/D-board's software is: 0.2.05

3. Technical data

3.1 Module

The non-automatic weighing module have the following characteristics:

Accuracy class:	III
Weighing range:	Single-interval or multi-range or multi-interval
Maximum number of Verification Scale Intervals:	≤ 3000 or 2×3000
Maximum capacity (Max):	6 kg to 30 kg
Minimum capacity (Min):	20 e
Verification Scale Interval (e):	≥ 1 g
Maximum tare effect:	$\leq -\text{Max}$ for single-interval and multi-range $\leq -\text{Max}_1$ for multi-interval
Mains power supply:	100-240 VAC, 50/60 Hz (Pxx models) or 12 or 24 VDC using external AC/DC adapter for 100 - 240 VAC, 50/60 Hz (Lxx & Q50 models), 7.4V/5200mAh Li battery (optional)
Operational temperature:	-10°C to 40°C

3.2 Load cell

Tscale load cell type BX6 C3 or Zemic load cell type L6D C3 with $v_{\min} \leq e$ and $0.6 \times E_{\max} \leq \text{Max} \leq 0.9 \times E_{\max}$.

Other load cells with certified specification equal to or better than the load cells above may be used.

4. Interfaces

4.1 Communication and I/O interfaces

The modules have the following physical interfaces:

- 1 × RJ45
- 1 × RJ11
- 4 × USB 2.0
- 3 × RS232
- 1 × VGA output
- Wi-Fi (optional)

5. Inscriptions

The data plate shall bear the following legends:

- The number of this Evaluation Certificate
- Manufacturer's mark or name
- Model name
- Serial number

6. Sealing

Access to the calibration switch located on the A/D-board and accessed through a hole in the enclosure shall be prevented by sealed using tamper-evident stickers or by wire and seal (see fig. 11 and 12).

The electronics and the load cell of the module shall be sealed against dismantling/adjustment using tamper-evident stickers or by wire and seal (see fig. 11 and 12).

Seals and tamper-evident stickers shall bear the securing mark of the manufacturer and/or his representative or an official mark of a verification officer from a notified body according to ANNEX II, section 2 or 4 of the Directive 2014/31/EU.

7. Documentation

Contents of the technical documentation held by the notified body under file No. 121-29605.

8. Pictures



Fig. 1: PE10-PC weighing module.



Fig. 2: P10b-PC weighing module.



Fig. 3: P10e-PC weighing module.



Fig. 4: P10s-PC weighing module.



Fig. 5: P15-PC weighing module.



Fig. 6: P15-F-PC weighing module.



Fig. 7: P18-PC weighing module.



Fig. 8: L10-PC weighing module.



Fig. 9: L15-PC weighing module.



Fig. 10: QP50-PC weighing module.

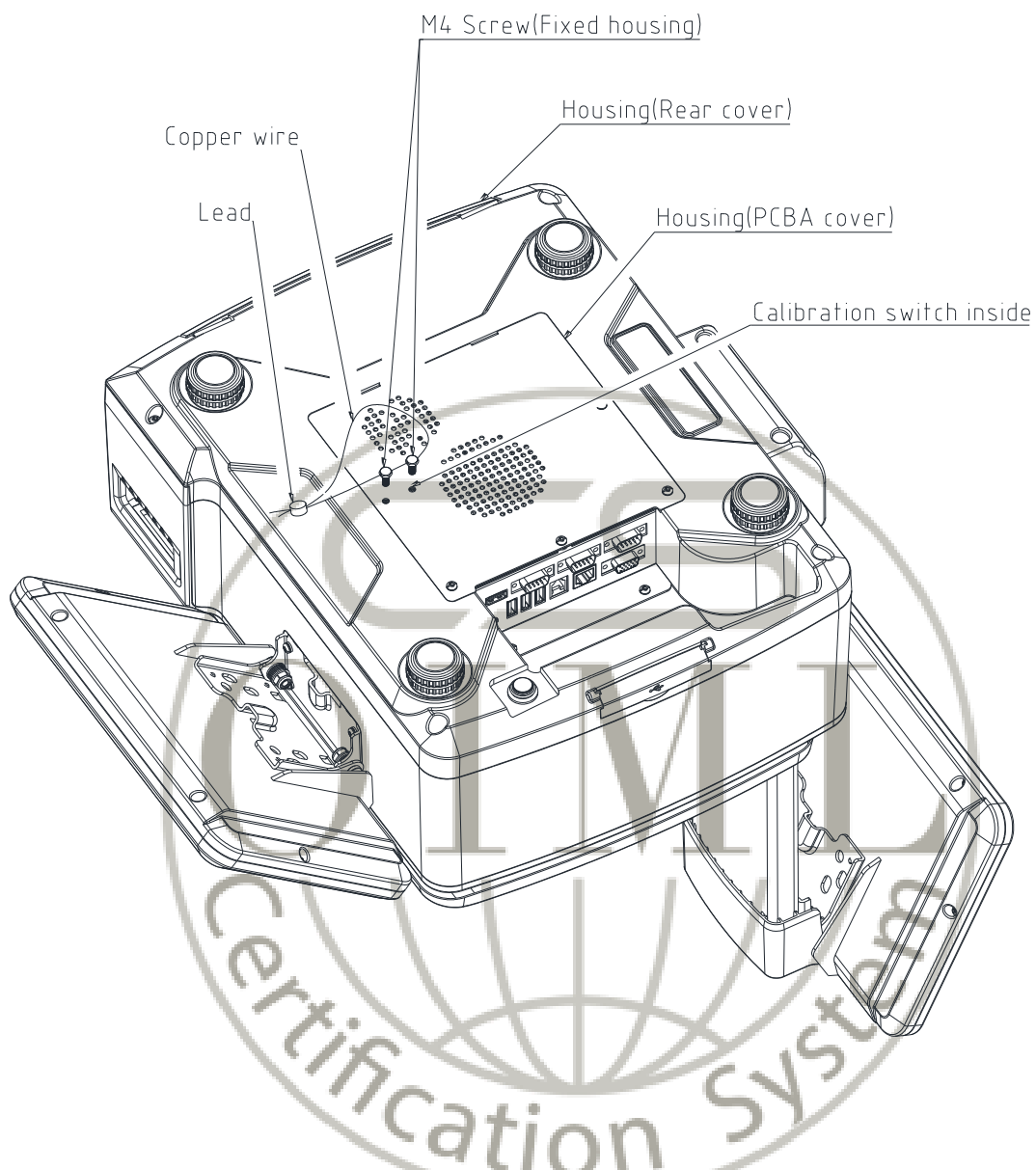


Fig. 11: Sealing of PE10-PC / P10b-PC / P10e-PC / P10s-PC / P15-PC / P15-F-PC / P18-PC weighing module (method A).

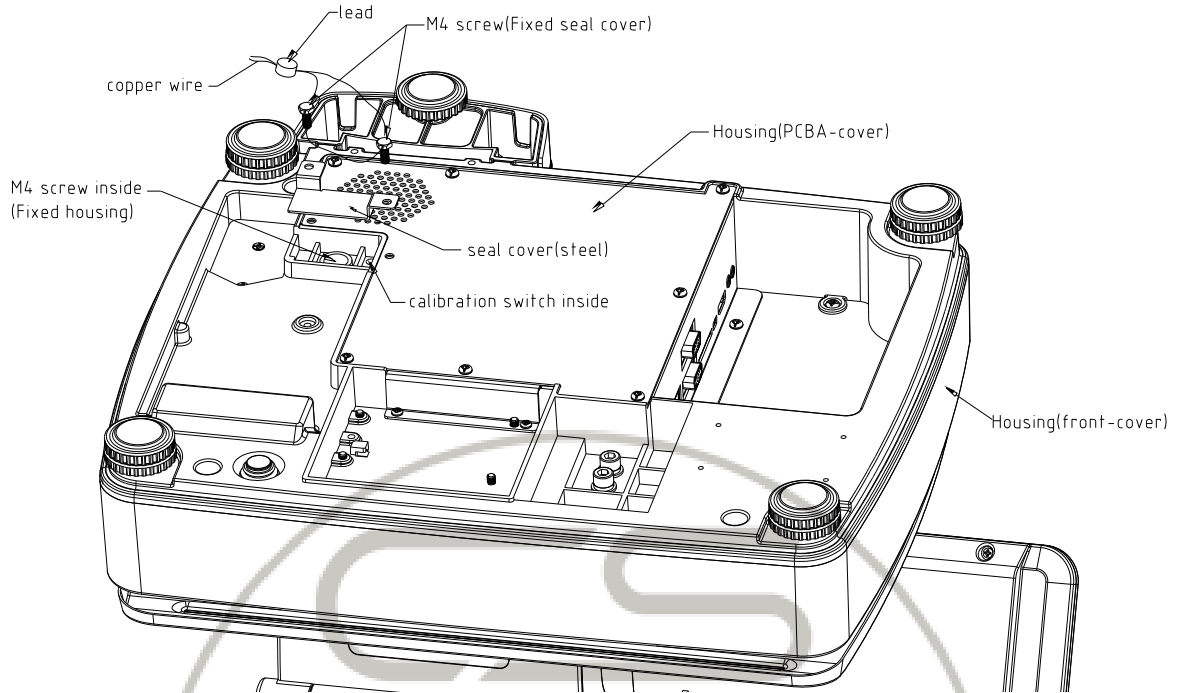


Fig. 12: Sealing of L10-PC / L15-PC / Q50-PC weighing module

