

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 : ALE series

Further properties are described in the annexes:  
– Description T10791 revision 2;  
– Documentation folder T10791-3.

Valid until 5 September 2026

Remarks This revision replaces the earlier versions, including its documentation  
folder.

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## 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
10791/2-01	2	Block diagrams	-

EMI protection measures:

- Ferrite on cable between the weigh cell and the main board.

### 1.2 Essential characteristics

Accuracy class	I	II
Maximum capacity	Max ≤ 1200 g	120 g ≤ Max ≤ 15000 g
Verification scale interval	e ≥ 0,01 g	e ≥ 0,01 g
Actual scale interval	e = d, e = 2 d, e = 5 d or e = 10 d	
Weighing range	Single interval	
Maximum number of scale intervals	n ≤ 120000 divisions	n ≤ 62000 divisions
Tare	T ≤ -Max	
Temperature range	+10 °C / +30 °C	+5 °C / +35 °C
Power supply voltage	100 – 240 V AC 50/60 Hz 4 – 6 V DC battery 5 V DC USB powered	
Software identification	Checksum: 0E6A	

The software identification is displayed at start-up.

The non-automatic weighing instrument has embedded software.

### 1.3 Essential shapes

Number	Pages	Description	Remarks
10791/0-02	1	Outline drawing lower capacity	-
10791/0-03	1	Outline drawing higher capacity	-

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

Inside the cabinet is an adjustment lock, located on the main 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, unless the instrument is installed in a fixed position. 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:

- Battery;
- Windshield over the load receptor.

## 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
10791/0-04	2	Main board	-
10791/1-01	2	Main board	Revision 1
10791/2-02	2	Main board	Revision 2
10791/0-05	2	Power / interface / calibration control board	-
10791/2-03	2	Power / interface / calibration control board	Revision 1
10791/2-04	2	Temperature and pressure sensor board	-

#### 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 weighing;
- Switching between gross and net indication;
- Preset tare;
- Gravity compensation;
- Adjustment / set-up mode via switch on the main board;
- Semi-automatic span adjustment with internal calibration mass (only for models with suffix "R");
- Semi-automatic span adjustment with external calibration mass (optional and only for Class  $\text{I}$  instruments);
- Acting upon significant faults;
- Checking the display;
- Weight unit selection (g, ct);
- Auxiliary indicating (optional), resolution  $1/10 e$ ,  $1/5 e$  or  $1/2 e$ ;
- Indications other than primary indications;
- Indication of additional information;
- Totalisation.

### 2.1.3 Conditional parts

AC/DC adapter:

Producer	Type	Remarks
GlobTek Inc.	GT-46060-0606-0.05	Input: 100 – 240 V AC, 50-60 Hz Output: 5,95 V DC, 1 A

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

- RS232;
- Ethernet;
- USB device;
- Relay output.

### 2.1.4 Conditional characteristics

List of devices:

- Check weighing;
- Count mode;
- Percentage mode;
- Specific gravity mode.

### 2.1.5 Non-essential parts

Display;  
 Keyboard;  
 Optional interface board.

## 2.2 The mechanical assembly with load cell

### 2.2.1 Essential parts

Number	Pages	Description	Remarks
10791/0-06	2	Weight detectors	-
10791/0-07	2	Weighing cells without internal calibration	-
10791/0-08	3	Weighing cells with internal calibration	-

### 2.2.2 Essential characteristics

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 drawings:

Number	Pages	Description	Remarks
10791/0-02	1	Outline drawing lower capacity	-
10791/0-03	1	Outline drawing higher capacity	-

For the class **I** instruments where the semi-automatic span adjustment with external calibration mass has to be disabled after sealing, the parameter 635 "EX CAL DISABLE" must be set to ON and the span adjustment protect switch must be set to ON.

## 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.