

Issued by NMI Certin B.V.

In accordance with WELMEC 8.8 Issue 2, Paragraph 8.1 of EN 45501:1992/AC:1993, WELMEC 2.1 Issue 4, OIML R 76-1 (2006), WELMEC 7.2 Issue 5, OIML D 11 (2004)

Producer Rinstrum PTY Ltd.  
41 Success St.  
Acacia Ridge, Qld, 4110  
Australia

Measuring instrument An **Indicator**, tested as a part of a weighing instrument.

Brand : Rinstrum or PT  
Designation : R4xx Series (R420 & R423) or PT600 Series

Further properties are described in the annexes:

- Description TC6821 revision 7;
- Documentation folder TC6821-3.

An overview of performed tests is given in the annex:

- Description TC6821 revision 7.

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

Issuing Authority

**NMI Certin B.V.**  
10 October 2014



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## 1 General information about the indicator

All properties of the indicator, whether mentioned or not, shall not be in conflict with the standard mentioned in the certificate.

This certificate is the positive result of the applied voluntary, modular approach, for a component of a measuring instrument, as described in WELMEC 8.8. The complete measuring system must be covered by an EC type-approval Certificate or an EC-type examination Certificate.

### 1.1 Essential parts

Number	Pages	Description	Remarks
R400-000-200	4	Main board Bill of Materials	Layout + Parts list
R400-000-220	4	Main board Bill of Materials	Layout + Parts list

EMI protection measures:

- Metallic fastening strip, on the backside of the instrument connected to earth;
- The instrument must be placed in an environment where no significant influence of surges is expected.

### 1.2 Essential characteristics

Accuracy class	Ⓜ and ⓂⓂ (OIML R 76)	
Maximum number of verification scale intervals	$n \leq 10000$	$n \leq 2000$ when a tilt sensor is used
Load cell excitation voltage	7,4 V DC	
Minimum input voltage per verification scale interval	0,7 $\mu$ V	
Minimum load cell resistance	21 $\Omega$	
Maximum load cell resistance	3500 $\Omega$	
Fraction of the maximum permissible error	0,5	
Load cell connection	6-wire (remote sensing) and 4-wire	

Maximum value of the cable length per cross wire section between the indicator and the junction box or load cells	No special cable length. In case a 4-wire system is used the load cells are connected directly without junction box
Weighing range(s)	Single interval Multi-interval Multiple range
Temperature range	-10 °C / +40 °C
Electromagnetic environment class	E3
Power supply voltage	12 – 24 V DC through an adapter or a road vehicle power supply, or 230V AC, 50/60Hz though a connectable power supply unit on the rear of the instrument
Software identification	Version number Alibi application: 1.yy Checksum: 38251 Version number Trade application: 2.yy Checksum: 52402  The legally relevant software (alibi & trade application) has the identification number in the format "x.yy", where "yy" can be a number between 00 and 99 and represents the non-legally relevant software)
Application	Can be used a mobile instrument

Software:

- The identification number will be displayed after pressing the key sequence:
  - Alibi button for 3 s;
  - Pressing the OK button.
- The indicator has embedded software;
- Software specification (WELMEC 7.2):
  - Software type P;
  - Risk Class B;
  - Extension S;
  - Extension L when equipped with a data storage device module.

List of legally relevant functions:

- Determination stability of equilibrium;
- Zero indicator;
- Semi-automatic zero-setting;
- Initial zero-setting;
- Zero-tracking;
- Semi-automatic subtractive tare weighing;



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- Preset tare;
- Indication of unstable equilibrium;
- The calibration mode is secured by means of a non-resettable event counter. The number of the event counter will increment each time a parameter change or change in calibration is made and saved. Access to the parameters and calibration can be granted by either entering a specific key sequence (which can be prompted by a password request), or by means of the calibration button on the rear of the instrument;
- Acting upon significant faults;
- Checking the display;
- Changing from kg to lb (only for the countries where the use of lb is allowed and complying with the requirements of the country where the instrument is taken into service);
- Totalizing;
- Counting mode;
- Hold function;
- Check weighing mode;
- Indications other than primary indications;
- Optional Data Storage Device in compliance with WELMEC Guide 7.2 (Storage capacity complying with additional requirements of the country where the instrument is taken into service).

Additional legally relevant functions for automatic tilt sensor:

- Compensation of tilting effect for a maximum of 10°.

### 1.3 Essential shapes

The indicator is built according to drawings:

Number	Pages	Description	Remarks
R400-206-100	1	R420 Outline drawing	-
R400-214-110	1	R423 Outline drawing	-

The descriptive markings plate is secured against removal by sealing or will be destroyed when removed and contains at least the following information:

- This certificate number TC6821;
- The event counter value;
- Producers name or mark.

## 1.4 Conditional parts

Number	Pages	Description	Remarks
6821/7-01	2	M4904 Tilt sensor	NS-10

The indicator may be equipped with one or more of the following protective interfaces that have not to be secured:

- Main board:
  - IR optical interface;
  - RS485 / RS232C.
- Separate interface boards:
  - Tilt compensation;
  - RS485 / RS232C;
  - Digital I/O;
  - Analog output;
  - USB/Ethernet.

## 1.5 Non-essential parts

Display;  
 Keyboard;  
 Power supply.

## 2 Seals

To secure components that may not be dismantled or adjusted by the user, the indicator has to be secured in a suitable manner on the locations indicated in the drawings:

Number	Pages	Description	Remarks
R400-200-110	1	Rinstrum R400 Series Sealing Diagram	-
R400-214-110	1	Rinstrum R423 Sealing Diagram	-
6821/7-02	1	Alternative sealing locations	-

The connecting cable of the load cell or the junction box is provided with possibility to seal.



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### 3 Conditions for conformity assessment

The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in WELMEC 2 Issue 5 Section 11, at the time of putting into use.

Other parties may use this certificate only with the written permission of the producer.

### 4 Reports

An overview of performed tests is given in the reports:

- No. 505310 dated 25 November 2005, that includes 41 pages;
- No. 801516A dated 31 July 2008, that includes 16 pages;
- No. 801516B dated 31 July 2008, that includes 11 pages;
- No. 14200442 dated 9 October 2014 that includes 11 pages.

A report can be a test report, an evaluation report, a type evaluation report and/or a pattern evaluation report.