

Issued by NMI Certin B.V.

In accordance with WELMEC 8.8 2017, EN 45501:2015, OIML R 76-1 (2006), WELMEC 7.2 2021

Producer Rinstrum PTY Ltd.
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Acacia Ridge, Qld, 4110
Australia

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

Brand : Rinstrum or PT

Type : R4xx Series or PT600 Series

Further properties are described in the annexes:

- Description TC6821 revision 11;
- Documentation folder TC6821-5.

An overview of performed tests is given in the annex:
- Description TC6821 revision 11.

Initially issued 25 November 2005

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

Issuing Authority **NMI Certin B.V.**
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Certification Board

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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 instrument must be covered by relevant metrological certification that is valid in the country where the instrument is put into use.

1.1 Essential parts

Number	Pages	Description	Remarks
6821/0-01	4	Main board layout with parts list	-
6821/1-01	4	Main board layout with parts list	Alternative

EMI protection measures:

- Metallic fastening strip, on the backside of the instrument connected to earth;
- Tilt sensor AAL-series (6821/7-01) is built in a plastic housing;
- Tilt sensor M4907 (6821/10-01) is built in a metal housing.

1.2 Essential characteristics

Accuracy class	Ⓜ or ⓂⓂ	
Weighing ranges	Single interval Multi-interval Multiple range	
Maximum number of scale intervals	Without tilt sensor	$n \leq 10000$
	With tilt sensor	$n \leq 3000$
Maximum number of (partial) weighing ranges	2	
Load cell excitation voltage	7,4 V DC	
Minimum signal input voltage	$U_{\min} = 0 \text{ mV}$	
Minimum input voltage per verification scale interval	0,7 μV	
Minimum load cell resistance	21 Ω	
Maximum load cell resistance	3500 Ω	

Fraction of the maximum permissible error	0,5		
Load cell interface	6-wire with sense technology, may be configured as 4-wire		
Maximum value of the cable length per cross wire section between the indicator and the junction box or load cells	635,4 m/mm ² In case sense technology is not used the load cells are connected directly without junction box or extension cable		
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 through a connectable power supply unit on the rear of the instrument		
Application	Can be used on mobile instruments		
Software identification	Main application version ¹	Trade & Alibi application version ²	Checksum ²
	1.xx	1.25	38251
	2.xx	1.32	52402

1. The main application version number is non-legally relevant, where “xx” can be a number between 00 and 99. The version number will be displayed at start-up.
2. The Trade & Alibi application version number represents the legally relevant software and can be displayed after pressing the key sequence:
 - a. Press the Alibi button for 3 seconds;
 - b. Press the OK button.

Software:

- The indicator has embedded software;
- Software specification (WELMEC 7.2):
 - Software type P;
 - Risk Class B;
 - Extension L (when equipped with a data storage device module) and S.

List of legally relevant functions:

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



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- Preset tare;
- The adjustment mode is secured by means of a non-resettable event counter. The value of the event counter will increment each time a parameter changes or a 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;
- Checkweighing mode;
- 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 types equipped with an automatic tilt sensor (see drawing 6821/7-01 and 6821/10-01):

- Compensation of tilting effect for a maximum of 15°.

1.3 Essential shapes

Number	Pages	Description	Remarks
6821/1-02	1	R420 Outline drawing	-
6821/1-03	1	R423 Outline drawing	-
6821/9-01	4	R427 & R457 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	Tilt sensor (AAL-Series)	-
6821/10-01	2	Tilt sensor (M4907)	-

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
6821/0-04	1	R400 Sealing drawing	-
6821/1-04	1	R423 Sealing drawing	-
6821/9-02	1	R427 & R457 Sealing drawing	-
6821/7-02	3	Alternative sealing locations	-

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



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Inside the cabinet is an adjustment lock, located on the rear of the instrument by means of a push button.

The event counter value can be displayed at start-up.

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 EN 45501:2015 clause F.4 at the time of putting into use.

The inscriptions contain the value of the event counter at the time of conformity assessment.

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

4 Reports

An overview of performed tests is given in the evaluation report ER6821 revision 11.