

Issued by NMI Certin B.V.

In accordance with Paragraph 8.1 of EN 45501:1992/AC:1993, WELMEC 2.1 Issue 4

Producer Dibal S.A.
Astintze Kalea, 24 - Pol. Ind. Neinver
48160 Derio, Vizcaya
Spain

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

Brand : Dibal
Designation : 500, 500-SW and D-900 Series

Further properties are described in the annexes:
- Description TC7762 revision 9;
- Documentation folder TC7762-8.

An overview of performed tests is given in the annex:
- Description TC7762 revision 9.

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

Issuing Authority **NMI Certin B.V.**
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C. Oosterman
Head Certification Board

NMI Certin B.V.
Hugo de Grootplein 1
3314 EG Dordrecht
The Netherlands
T +31 78 6332332
certin@nmi.nl
www.nmi.nl

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Description

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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.

1.1 Essential parts

Block diagrams:

- Block diagram 500 Series, drawing number 7762/0-01;
- Block diagram 500-SW Series, drawing number 7762/5-01.

Essential parts 500 Series:

Number	Pages	Description	Remarks
7762/0-02	3	CPU board including ADC	Revision A
7762/6-02	4	CPU board including ADC	Revision C
7762/9-01	4	CPU board including ADC	

Essential parts 500-SW series:

Number	Pages	Description	Remarks
7762/5-02	3	ADC board	
7762/6-01	3	ADC board	For 500-SW and D-900
7762/9-02	3	ADC board	
7762/7-02	3	Display Control Board	For 500SW-D900 Self Service scale
7762/8-01	5	Display Control Board	For 500-SW and D-900

EMC protection measures:

- The A/D board is shielded with a metal or metalized cover;
- Noise-filter (only in combination with power supplies as described in drawings 7762/0-03);
- For 500-SW series (only in combination with power supplies as described in drawings 7762/0-03):
 - Ferrite bead around the cable between the power connection and the power board, 1 turn.
- For type 'Hanging' (only in combination with power supplies as described in drawings 7762/0-03):
 - Ferrite bead around the cable between the power board and the main board, 1 turn;
 - Ferrite bead around the cable between the load cell and the A/D board, 1 turn;
 - Ferrite bead around the data cable between the printer board and the main board, 1 turn.
- For all types with 7" TFT display:
 - Ferrite bead around each of the two cables between the display control board and the display, 0 turns.
- For type 'Double body 7" new top' with ticket printer:
 - Ferrite bead around the cable between the CPU and the keyboard, and the cable between the CPU and the printer interface placed on the top of the column, 0 turns;
- For 500 series types 'Wind Flat, Wind with Pole' with ABO battery:
 - Ferrite bead around the cable between the load cell and the CPU board, 1 turn.
- For 500 series types 'Label/Ticket Flat, Label/Ticket with Pole':
 - Ferrite bead around the cable between the load cell and the CPU board, 1 turn.
- For 500-SW series types 'Label/Ticket Flat, Label/Ticket with Pole':
 - Ferrite bead around the cable between the load cell and the A/D board, 1 turn.
- For 500-SW series type 'Selfservice':
 - Ferrite in the cable from CPU to Graphic Control Board;
 - Ferrite in the cable from Graphic Control Board to TFT display.

1.2 Essential characteristics

Accuracy class	III and IIII
Maximum number of verification scale intervals	6000
Fraction of the maximum permissible error	0,5
Load cell excitation voltage	5 V DC
Minimum input voltage per verification scale interval	1,0 μ V
Minimum load cell resistance	300 Ω
Maximum load cell resistance	900 Ω
Temperature range	-10 °C / +40 °C
Fraction of the maximum permissible error	0,5



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Load cell connection	4-wire 6-wire
Maximum value of the cable length per cross wire section (6-wire system)	The load cell cable or cables shall be connected directly to the indicator without a junction box.
Weighing range(s)	Single interval Multi-interval Multiple range
Power supply voltage	110–230V AC 50/60 Hz
Internal/External battery	12-24 VDC
Maximum number of load platforms	1
Software identification	1.00 for the 500 Series; 2.00 for the 500-SW Series.
Application	Intended to be used for direct sales to the public

Software:

- The identification number will be displayed at start-up or;
- After pressing the (i) symbol during the start-up sequence;
- The indicator has embedded software.

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;
- Preset tare;
- Indication of stable equilibrium;
- Gravity compensation;
- Calibration / set-up mode via a switch;
- Acting upon significant faults;
- Checking the display;
- Price calculation.

When equipped with a printer the following devices may be present:

- Indications other than primary indications;
- Indication of additional information;
- Memory storage;
- Non-weighed articles;
- Totalization;
- Multi-vendor;
- Price labelling instrument;
- PLU function.



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1.3 Essential shapes

The indicator is built according to drawing:

- Models, drawing number 7762/8-02.

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

- This test certificate number TC7762;
- Manufacturers name or mark.

1.4 Conditional parts

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

- RS232;
- Ethernet;
- Cash drawer port;
- USB.

Number	Pages	Description	Remarks
7762/0-03	2	Power supply	-
7762/2-01	3	Power supply	-
7762/3-01	5	Power supply board for internal battery	-
7762/6-05	4	Standard and ABO Power Supply	-
7762/5-04	4	Separate weighing CPU board	For the 500-SW Series
7762/6-04	4	CPU board	For the 500-SW Series
7762/8-03	4	CPU board	For the 500-SW and D-900 Series

1.5 Non-essential parts

Display;
Keyboard;
Internal printer for continuous paper, labels or adhesive continuous paper;
External printer;
Charger board.

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:

For the 500 Series:

- "Hanging H Seal", drawing number 7762/0-04;
- "Double body H Seal", drawing number 7762/0-05;
- "Flat tower H XL Seal", drawing number 7762/0-06;
- "Flat-Tower Gamma 500 Seal", drawing number 7762/2-03;
- "Ticket S.Steel Hanging H Seal", drawing number 7762/2-04;
- "Label S.Steel Hanging Seal", drawing number 7762/3-09.

For the 500-SW and D-900 Series:

- "Hanging 500 range seal", drawing number 7762/5-07;
- "Label flat-tower seal", drawing number 7762/5-08;
- "500-SW / Label S.Steel Hanging Seal", drawing number 7762/5-09;
- "500-SW / Ticket S.Steel Hanging H Seal", drawing number 7762/5-10;
- "Gamma 500 Double body H Seal", drawing number 7762/5-11;
- "Ticket Flat-tower Seal", drawing number 7762/5-12;
- "D900 Double body seal", drawing number 7762/7-03.

Inside the cabinet is a calibration lock:

- Located on the CPU board for the 500 Series;
- Located on the ADC board for the 500-SW Series.

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 EC verification or declaration of EC conformity of type.

4 Test reports, evaluation reports and pattern evaluation reports

An overview of performed tests is given in the reports:

- Number R76/2006-NL1-10.28A dated 26 August 2010 that includes 47 pages;
- Number R76/2006-NL1-10.28B dated 26 August 2010 that includes 16 pages;
- Number R76/2006-NL1-10.46 dated 21 December 2010 that includes 17 pages;
- Number NMI-10201100-01 dated 27 April 2011 that includes 35 pages;
- Number NMI-11200395-01 dated 22 July 2011 that includes 32 pages;
- Number NMI-11200653-01 dated 30 November 2011 that includes 37 pages;
- Number NMI-12200102-01 dated 23 July 2012 that includes 14 pages;
- Number NMI-12200562-01 dated 11 December 2012 that includes 30 pages;
- Number NMI-13200425-01 dated 9 October 2013 that includes 17 pages;
- Number NMI-13200425-02 dated 9 October 2013 that includes 10 pages;
- Number NMI-13200724-01 dated 12 March 2014 that includes 38 pages.