Evaluation Certificate

Number **TC7763** revision 1
Project number 13200098

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.
Producer	Fidelity Measurement Company Ltd. 6F No. 33 Dalian 4th Street Taoyuan City 33043 Taiwan
Measuring instrument	An **Indicator**, tested as a part of a weighing instrument.

Brand : Fidelity
Designation : AFM18, FM18S, FM180 & FM180S

Further properties are described in the annexes:
- Description TC7763 revision 1;
- Documentation folder TC7763-2.

An overview of performed tests is given in the annex:
- Description TC7763 revision 1.

Remarks: This revision replaces the earlier version(s), including its documentation folder.

Issuing Authority: **NMi Certin B.V.**
17 May 2013

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

Description

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 guide 8.8. The complete measuring system must be covered by an EC type-examination Certificate.

1.1 Essential parts

Number	Pages	Description	Remarks
7763/1-01	1	Electronic block diagram	-
7763/1-02	1	Main PCB	-
7763/1-03	2	Bill of material	-

EMC protection measures:
- Ferrite bead around the power supply cable, 3 turns;
- Ferrite bead around the serial communication cable, 4 turns;
- Ferrite bead around the cable from the load cell to the A/D board, 2 turns.

1.2 Essential characteristics

Accuracy class	(III)	(IIII)
Maximum number of verification scale intervals	10000	1000
Load cell excitation voltage	5 V DC	
Minimum input voltage per verification scale interval	0,75 µV	
Minimum load cell resistance	87 Ω	
Maximum load cell resistance	1212 Ω	
Temperature range	-10 °C / +40 °C	
Fraction of the maximum permissible error	0,5	
Load cell connection	6-wire (remote sensing)	

Maximum value of the cable length per cross wire section (6-wire system)	No special cable length has to be provided for the connection between the indicator and the junction box or load cells.
Weighing range(s)	Single interval Multiple range
Power supply voltage	6 V DC
Maximum number of load platforms	1
Software identification	Version number: CE 018 or CE 180

Software:
- The identification number will be displayed at start-up;
- The indicator has embedded software.

List of legally relevant functions:
- Determination stability of equilibrium;
- Indication of stable equilibrium;
- Zero indicator;
- Semi-automatic zero-setting;
- Initial zero-setting;
- Zero-tracking;
- Semi-automatic subtractive tare balancing;
- Automatic subtractive tare balancing;
- Preset tare;
- Gravity compensation;
- Calibration / set-up mode via a switch on the main board;
- The calibration mode is secured with a password, this software seal uses an event counter that contains a number that will be incremented each time any parameter changes or calibration change is made and saved;
- Acting upon significant faults;
- Checking the display;
- Check weighing mode;
- Piece counting mode;
- Percentage mode;
- Weighing unstable samples;
- Weight unit selection (kg, g);
- Linearity compensation: the linearity can be compensated to a maximum of 2 points;
- Memory storage.

1.3 Essential shapes

The indicator is built according to drawings:
- FM18 Explosion drawing, drawing number 7763/1-04;
- FM18S & FM180S Explosion drawing 7763/1-05.

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 TC7763;
- The calibration counter value;
- Producers name or mark.

Inside the cabinet is a calibration lock, located on the main board.

1.4 Conditional parts

AC-DC adaptor:

Manufacturer	Type	Remarks
Pinghu City Sitong Power Supply Factory	AM-9500M	input 220 VAC 50Hz output 9 VDC 500 mA

The interface section is located on the main board. The indicator may be equipped with one or more of the following protective interfaces that have not to be secured:
- RS232C.

1.5 Conditional characteristics.

Set points;
Indication of selected set point(s).

1.6 Non-essential parts

Display;
Keyboard.

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:
- Sealing drawing, drawing number 7763/1-06.

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.

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

4 Test reports, evaluation reports and pattern evaluation reports

An overview of performed tests is given in the reports:
- No. 10200263 dated 09 June 2010 that includes 43 pages;
- No. NMi-13200098-01 dated 14 May 2013 that includes 12 pages.