Evaluation Certificate

Number **TC8792** revision 1
Project number SO16201106

Issued by	NMi Certin B.V.
In accordance with	WELMEC 8.8 Issue 2, 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 : 19x, 190x
(x: i or s)

Further properties are described in the annexes:
- Description TC8792 revision 1;
- Documentation folder TC8792-1.

An overview of performed tests is given in the annex:
- Description TC8792 revision 1.

Remarks: This revision replaces the earlier version, excluding for its documentation folder.

Issuing Authority: **NMi Certin B.V.**
15 April 2016

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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 8.8. The complete measuring system must be covered by an EC type-approval certificate or an EU-type examination certificate.

1.1 Essential parts

See block diagram:

Number	Pages	Description	Remarks
8792/0-01	1	Block diagram	-

See drawings:

Number	Pages	Description	Remarks
8792/0-02	1	Main board lay out	-
8792/0-03	2	Main board parts list	-

EMI protection measures:
- Ferrite on the cable from load cell to the main board;
- Ferrites on the cables from each RS232 input to the main board;
- Ferrite on the cable from power input to the main board;
- The indicator is built in a metal enclosure (for model 19s and 190s).

1.2 Essential characteristics

Accuracy class	(III) or (IIII)
Weighing range(s)	Single interval Multi-interval Multiple range
Maximum number of scale intervals (one weighing range)	n ≤ 10000 divisions
Maximum number of scale intervals (multi-interval)	n ≤ 10000 divisions (per partial weighing range)
Maximum number of partial weighing ranges	2
Maximum number of scale intervals (multiple range)	n ≤ 10000 divisions (per weighing range)
Maximum number of weighing ranges	2
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	1050 Ω
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 between the indicator and the junction box or load cells	No special cable length
Temperature range	-10 °C / +40 °C
Power supply voltage	12 V DC supplied by a plug-in power supply of 100 – 240 V AC 50/60 Hz, or by 6 V built-in battery
Software identification	Version numbers: CE019 (for 19x), CE190 (for 190x)

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

List of legally relevant functions:
- Determination stability of equilibrium;
- Zero indicating;
- Semi-automatic zero-setting;
- Initial zero-setting;
- Zero-tracking;
- Semi-automatic subtractive tare balancing;
- Preset tare;
- Gravity compensation;
- Adjustment / set-up mode via a switch on the main board;
- The adjustment 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 adjustment is made and saved;
- Acting upon significant faults;
- Checking the display;
- Check weighing mode;
- Piece counting mode;
- Peak mode;
- Weighing unstable samples (Hold mode);
- Weight unit selection (kg, g);
- Extended indicating, resolution 1/10 e for a period not exceeding 5 seconds after a manual command;
- Memory storage.

1.3 Essential shapes

Number	Pages	Description	Remarks
8792/0-04	1	General appearance	-
8792/0-05	1	Exploded view 19i, 190i	-
8792/0-06	1	Exploded view 19s, 190s	-

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 TC8792;
- The event counter value;
- Producers name or mark.

Inside the cabinet is an adjustment lock, located on the main board.

1.4 Conditional parts

AC/DC plug-in power supply (brand: Xing Yuan Electronics, type: XY-1201000-Z)

The indicator may be equipped with one or more of the following protective interfaces that have not to be secured:
- RS232;
- Control output.

1.5 Non-essential parts

Display;
Keyboard;
Battery.

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
8792/0-07	1	Sealing	-

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

The event counter value is 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 WELMEC 2 Issue 5 clause 11, at the time of placing on the market.

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 reports:
- No. NMi-15200570-01 dated 14 March 2016 that includes 29 pages;
- No. NMi-15200570-03 dated 14 March 2016 that includes 11 pages.

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