

Evaluation Certificate

Number **TC8851** revision 0
Project number 16200064
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Issued by NMI Certin B.V.

In accordance with WELMEC 8.8 Issue 2, WELMEC 2.1 Issue 4, EN 45501:2015, OIML R 76-1 (2006)

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United Kingdom

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

Brand : A&D
Designation : AD-4401A

Further properties are described in the annexes:

- Description TC8851 revision 0;
- Documentation folder TC8851-1.

An overview of performed tests is given in the annex:

- Description TC8851 revision 0.

Issuing Authority

NMI Certin B.V.

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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 EU-type examination certificate.

1.1 Essential parts

Number	Pages	Description	Remarks
8851/0-01	1	Block diagram	-
8851/0-02	1	Main board lay out	with parts list
8851/0-03	1	A/D board lay out	with parts list

EMI protection measures:

- The indicator is built into a metal casing;
- The A/D board is shielded with a metal cover;
- Ferrites (2x) on the load cell cable.

1.2 Essential characteristics

Accuracy class	Ⓜ or ⓂⓂ
Weighing range	Single interval
Maximum number of scale intervals	$n \leq 10000$ divisions
Load cell excitation voltage	10 V DC
Minimum input voltage per verification scale interval	1,0 μ V
Minimum load cell resistance	42 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 In case a 4-wire connection is used the load cells are connected directly without junction box
Temperature range	-10 °C / +40 °C
Power supply voltage	100 – 240 V AC 50/60 Hz



Description

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Software identification	Version number: 1.xx (xx is a number between 00 and 99 and represents the non-legally relevant software)
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Software:

- The identification number will be displayed after pressing the key sequence:
 - While pressing and holding the ENTER key, press the setpoint key;
 - While pressing and holding the ZERO key, press the ENTER key;
 - Press the F key once, and press the ENTER key.
- The indicator has embedded software.

List of legally relevant functions for all types of weighing instruments:

- Determination stability of equilibrium;
- Zero indicating;
- Semi-automatic zero-setting;
- Initial zero-setting;
- Zero-tracking;
- Semi-automatic subtractive tare weighing;
- Adjustment / set-up mode via a switch behind a sealed cover on the display board;
- Acting upon significant faults;
- Checking the display;
- Set points;
- Indication of selected set point(s).

1.3 Essential shapes

Number	Pages	Description	Remarks
8851/0-04	1	External view	-
8851/0-05	1	Exploded view	-

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 TC8851;
- Producers name or mark.

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

1.4 Conditional parts

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

- RS232C;
- RS422/485;
- Digital I/O;
- Current loop output;
- Set point input;
- Analog 4-20 mA output.

1.5 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 drawing:

Number	Pages	Description	Remarks
8851/0-06	1	Sealing	-

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

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-16200064-01 dated 15 June 2016 that includes 47 pages;
- No. NMI-16200064-02 dated 15 June 2016 that includes 16 pages;
- No. NMI-16200064-03 dated 15 June 2016 that includes 15 pages.

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