Test Certificate
Parts Certificate

Number **TC8658** revision 2
Project number 2623826

Issued by	NMi Certin B.V.
In accordance with	WELMEC 8.8 2017, WELMEC 2.1 Issue 4, EN 45501:2015, OIML R 76-1 (2006), WELMEC 7.2 Issue 5.
Producer	Hottinger Brüel & Kjaer GmbH Im Tiefen See 45 D-64293 Darmstadt Germany
Measuring instrument	An **Analog data processing device (ADPD)**, tested as a part of a weighing instrument. Type : PAD-400xA Further properties are described in the annexes: - Description TC8658 revision 2; - Documentation folder TC8658-1. An overview of performed tests is given in the annex: - Description TC8658 revision 2.
Remark	This revision replaces the earlier versions, except for its documentation folder.
Issuing Authority	**NMi Certin B.V.** 8 April 2022 Certification Board

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INSPECTION
RvA I 122

Description

1 General information about the ADPD

All properties of the ADPD, 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, an EC-type examination certificate, an EU-type examination certificate, or an approval that is valid in the country where the indicator is taken into service.

1.1 Essential parts

Number	Pages	Description	Remarks
8658/0-01	3	PCB lay out for CAN version	including parts list
8658/0-02	3	PCB lay out for RS485 version	including parts list

EMI protection measures:
- The main board is placed in a metal housing.

1.2 Essential characteristics

Configuration	Analog load cells
Accuracy class	(III) or (IIII)
Weighing range(s)	Single interval Multiple range
Maximum number of scale intervals (one weighing range)	n ≤ 6000
Maximum number of scale intervals (multiple range)	n ≤ 3000 (per weighing range)
Maximum number of weighing ranges	2
Load cell excitation voltage	5 V AC square wave
Minimum input voltage per verification scale interval	0,5 µV
Minimum load cell resistance	300 Ω
Maximum load cell resistance	900 Ω
Load cell interface	4-wire

Description

Maximum value of the cable length per cross wire section between the ADPD and the junction box or load cells		3 m
Climatic environment	temperature range	-10 °C / +40 °C
	humidity	non-condensing
Electromagnetic environment class		E2
Power supply voltage		12 – 30 V DC
Software identification		Version number: 80, Checksum: 240413 or Version number: 81, Checksum: 244554

Software:
- The identification number will be displayed on the device that displays the primary indications;
- The ADPD has embedded software;
- Software specification (WELMEC 7.2):
  - Software type P;
  - Risk Class C.

For data transmission, the ADPD is equipped with one of the following protective interfaces that have not to be secured:
- RS485;
- CANopen;
- DeviceNet.

The ADPD can only be used in combination with a device that displays the primary indications which does not allow changing of the adjustment data of the ADPD using any interface.

List of legally relevant functions:
- Determination stability of equilibrium;
- Zero indicating;
- Semi-automatic zero-setting;
- Initial zero-setting;
- Zero-tracking;
- Semi-automatic subtractive tare weighing;
- The software seal uses an event counter that increments each time any parameter changes or adjustment is made and saved;
- Acting upon significant faults.

List of legally relevant functions (exclusively included in Software version 81):
- Preset tare;
- Automatic zero-setting.

1.3 Essential shapes

Number	Pages	Description	Remarks
8658/0-03	1	General overview for CAN version	-
8658/0-04	1	General overview for RS485 version	-

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 TC8658;
- The event counter value;
- Producers name or mark.

2 Seals

To secure components that may not be dismantled or adjusted by the user, the ADPD has to be secured in a suitable manner on the locations indicated in the drawings:

Number	Pages	Description	Remarks
8658/0-05	2	Sealing	-

3 Conditions for conformity assessment

The compatibility of load cells and ADPD 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.

Other parties may use this Certificate without the written permission of the producer.

4 Reports

An overview of performed tests is given in the evaluation report ER8658 revision 2.