Test Certificate
Parts Certificate

Number **TC6981** revision 2
Project number 16200545

Issued by	NMi Certin B.V.
In accordance with	WELMEC 8.8 Issue 2, WELMEC 2.4 Issue 2, OIML R 60 (2000), OIML R 76 (2006). EN 45501:2015.
Producer	Arpège Master-K Bât 6 – 15 rue du Dauphiné CS40216 69808 Saint-Priest Cedex FRANCE
Measuring instrument	A **compression load cell**, with strain gauges, equipped with electronics, tested as a part of a weighing instrument.

Brand : ARPÈGE MASTER-K
Designation : DC 285, CPFN-A, CPFN-B

Further properties are described in the annexes:
- Description TC6981 revision 2;
- Documentation folder TC6981-2.

An overview of performed tests is given in the annex:
- Description TC6981 revision 2.

Remarks	This revision replaces the earlier versions, except for its documentation folder.
Issuing Authority	**NMi Certin B.V.** 5 December 2016

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INSPECTION
RvA I 122

Description

1 General information about the load cell

All properties of the load cell, whether mentioned or not, shall not be in conflict with the standards mentioned in this 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	Remark
103780	1	Digi cell 285 Numerique 15 t / 30 t / 50 t / 75 t	Mechanical
103780A	1	Digi cell 285 Numerique 15 t / 30 t / 50 t / 75 t	Mechanical
104170	1	Digi cell 285 or CPFN-A 15 t / 30 t / 50 t / 75 t	Mechanical
103848	1	Fulle Bridge circuit type load cell Digi cell 285 15 t / 30 t / 50 t / 75 t	Electrical
104166RES-P0	1	Implantation Reperes face soudures carte capteur numerique Nouveau Modèle (CCC NM)	-
104166REC-P0	1	Implantation Reperes face composants carte capteur numerique Nouveau Modèle (CCC NM)	-
104166NOM_PO	2	Carte capteur num.nm. proto	-

Cable:
The cable shall be a shielded cable, the shield is connected to the load cell.

EMI protection measures:
- A/D board shielded with metal cover.

1.2 Essential characteristics

Maximum capacity (E_{max})	15 t up to and including 75 t
Minimum dead load	0 t
Accuracy Class	C
Maximum number of load cell intervals (n)	5000
Ratio of minimum LC Verification interval $Y = E_{max} / v_{min}$	15000
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	8000
Temperature range	-10 °C / + 40 °C
Fraction p_{LC}	0,8
Humidity Class	CH
Safe overload	150 % of E_{max}
Recommended excitation	6 - 16 V DC
Excitation maximum	16 V DC
Transducer material	Stainless steel
Atmospheric protection	Stainless steel welded IP68
Electromagnetic environment class	E1 / E2
Number of counts for E_{max}	$\geq Y * 5 / p_{LC}$
Software identification	Version number: VA.5, VA5, VS.0, VS0 or V2.4

The characteristics for n_{max} and Y can be reduced separately.

Each produced load cell is provided with an accompanying document with information about its characteristics.

List of legally relevant functions:
- Digital filter;
- Adjustable sample frequency.

Software:
- The identification number is written on the descriptive markings plate;
- The load cell has embedded software (OIML R 76-1 (2006));

Data transmission:
The load cell is equipped with one of the following protective interfaces that have not to be secured:

- RS485;
- CANbus.

Adjustment procedure:
- The calibration procedure is depending on the used indicator.

1.3 Essential shapes

Number	Pages	Description	Remark
103780	1	Digi cell 285 Numerique 15 t / 30 t / 50 t / 75 t	Mechanical
103780A	1	Digi cell 285 Numerique 15 t / 30 t / 50 t / 75 t	Mechanical
104170	1	Digi cell 285 or CPFN-A 15 t / 30 t / 50 t / 75 t	Mechanical

The descriptive markings plate is secured against removal by sealing or will be destroyed when removed and contains at least the information and markings as described in OIML R 60 (2000) and:
- This certificate number TC6981 (in the countries where it is mandatory);
- Producers name or mark.

2 Seals

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, 2015 clause 10, at the time of putting into use.

Other parties may use this certificate without the written permission of the producer (WELMEC 8.8).

The load cell equipped with electronics must be powered from the power supply of an indicator or terminal or a compatible external DC power supply. For the weighing instrument the voltage interruptions, short voltage reductions, voltage transients and surges on the power supply lines shall be considered.

4 Reports

An overview of performed tests is given in the reports:
- No. R60/2000-NL1-06.09A dated 23 June 2006 that includes 55 pages;
- No. R60/2000-NL1-06.09B dated 4 September 2006 that includes 13 pages;
- No. NMi-16200545-01 dated 1 December 2016 that includes 16 pages.

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