



Test Certificate Parts Certificate

Number **TC6586** revision 3
Project number 3741077
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Issued by NMI Certin B.V.

In accordance with WELMEC 8.8 2017, WELMEC 2.4 2021, OIML R 60 (2000), EN 45501:2015.

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Measuring instrument A **compression load cell**, with strain gauges, equipped with electronics, tested as a part of a weighing instrument.

Brand : Flintec
Designation : RC3D

Further properties are described in the annexes:

- Description TC6586 revision 3;
- Documentation folder TC6586-3.

An overview of performed tests is given in the annex:

- Description TC6586 revision 3.

Initially issued 5 October 2004

Remark This revision replaces the earlier versions, including its documentation folder.

Issuing Authority **NMI Certin B.V.**
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Certification Board

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Description

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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 instrument must be covered by relevant metrological certification that is valid in the country where the instrument is put into use.

1.1 Essential parts

Number	Pages	Description	Remark
6586/0-01	2	Data sheet Type RC3D Digital Load Cell	-
6586/2-01	2	Datasheet RC3D	-
6586/3-01	2	Datasheet RC3D-C	-
6586/0-02	1	Load cell RC3-30t Outline Drawings	-
6586/2-02	1	Load cell RC3D Outline Drawing	-
6586/3-02	2	Load cell RC3D-C Outline Drawing	-
6586/3-03	1	Load cell RC3DV2 assembly with cable	-
6586/0-03	2	PCB900	Including parts list
6586/2-03	3	XRCv2 board	Including parts list

EMI protection measures:

- A/D board shielded with metal cover;
- Ferrite on the connecting cable of the load cell.

1.2 Essential characteristics

Maximum capacity (E_{\max})	25 t up to and including 100 t
Minimum dead load	0 kg
Accuracy Class	C
Rated Output	166666 cts if $E_{\max} = 25\text{t}$ 200000 cts if $E_{\max} > 25\text{ t}$
Maximum number of load cell intervals (n) ⁽¹⁾	4000
Ratio of minimum LC Verification interval ⁽¹⁾ $Y = E_{\max} / V_{\min}$	15000
Ratio of minimum dead load output return ⁽¹⁾ $Z = E_{\max} / (2 * DR)$	9000
Temperature range	-10 °C / + 40 °C
Fraction p_{LC}	0,8
Humidity Class	CH
Safe overload	200 % of E_{\max}
Recommended excitation	12 V DC
Excitation maximum	12 V DC
Transducer material	Stainless steel
Atmospheric protection	Hermetically welded
Electromagnetic environment class	E2
Number of counts for E_{\max}	$\geq Y * 5 / p_{LC}$
Software identification	Version number: XRC1xxxxxxx or XRCv2xxxxxx ⁽²⁾

Remarks:

1. The characteristics for n_{\max} , Y and Z can be reduced separately.
2. xxxxxx is a number between 000000 and 999999 representing updates of the non legally relevant part of the software.

List of legally relevant functions:

- Linearity compensation: the linearity can be compensated to a maximum of 6 points;
- Digital filter;
- Temperature compensation;
- The software seal uses an event counter that increments, each time any parameter changes or adjustment is made and saved.

Software:

- The identification number will be displayed on the device that displays the primary indications;
- The load cell has embedded software (OIML R 76-1 (2006));



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Data transmission:

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

- RS485 Half Duplex, Addressable, 2400 up to 38400 Baud Databit, Parity and Data output programmable. A number of bus Address:52.

Adjustment procedure:

Load cell calibration is done in the factory only and is protected from unauthorized use by hardware calibration lock pin (software interrogated) and software audit trail counter and password.

1.3 Essential shapes

Number	Pages	Description	Remark
6586/0-02	1	Load cell RC3-30t Outline Drawing	-
6586/2-02	1	Load cell RC3D Outline Drawing	-
6586/3-02	2	Load cell RC3D-C Outline Drawing	-

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 TC6586 (in the countries where it is mandatory);
- Producers name or mark.

2 Seals

It is not necessary to seal the connecting cable of the load cell or the junction box. The load cells are paired to the indicator by software and serial number at the time of putting into use. Firmware and parameter settings are sealed by a CRC32 checksum.

3 Conditions for conformity assessment

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

The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in EN45501:2015 clause F.5, at the time of putting into use.

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

The load cell equipped with electronics must be powered from the power supply of an indicator or terminal.

4 Reports

An overview of performed tests is given in the evaluation report ER6586 revision 3.