

Nederlands Meetinstituut

# Test certificate

Number TC2097 revision 4  
Project number 10092781  
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Issued by NMI Certin B.V.  
Hugo de Grootplein 1  
3314 EG Dordrecht  
The Netherlands

Notified Body Number 122

In accordance with Paragraph 8.1 of the European Standard on Metrological aspects of non-automatic weighing instruments EN 45501:1992/AC:1993 and by application of the OIML International Recommendation R 60 (Edition 1991). The applied error fraction  $p_i$ , meant in the paragraph 3.5.4. of the standard is 0.7.

Applicant Flintec GmbH  
Bahnhofstraße 52-54  
74909 Meckesheim  
Germany

In respect of The model of a compression load cell, with strain gauges, tested as a part of a weighing instrument.  
Manufacturer : Flintec or Flintec  
Type : RC1

## Characteristics

Maximum capacity ( $E_{max}$ )	250, 400, 600 and 900 kN	
Accuracy Class	C	
Maximum number of load cell intervals (n)	1000	3000
Ratio of minimum LC Verification Interval $Y = E_{max} / V_{min}$	4667	10000

In the description TC2097 revision 4 further characteristics are described.

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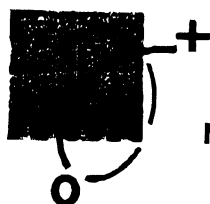
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QUALIFIED  
BY STERLAB  
Reg. nr. L 029



## 1 General information about the load cell

All properties of the load cell, whether mentioned or not, may not be in conflict with the standard mentioned in the test certificate.

### 1.1 Essential parts

Table 1

Description	Drawing number	Rev.	Remarks
Load cell type RC1-xxx kN Outline drawing	3-20447	20	Mechanical
Type RC1 Load Cell	E 13-05/98	--	2 sheets
RC1-250/400 kN Circuit Diagram and moisture protection seal	3-21063	-0	Electrical

The load cell is provided with a 4-wire system.

Because no "remote-sensing" is used the cable length has to be approximately :

- 9.1, 10 or 12 meter for the 250 kN version;
- 10.6, 16 or 18 meter for the 400 kN version
- 18 meter for the 600 and 900 kN version.

The cable should be a shielded cable, the shield is not connected to the load cell.

### 1.2 Essential characteristics

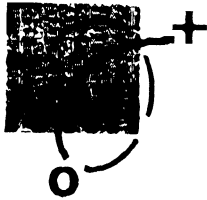
Minimum dead load	: 0 kg
Safe overload	: 200 % of $E_{max}$
Rated Output	: 2 mV/V
Input impedance	: $400 \Omega \pm 5 \Omega$
Output impedance	: $351 \Omega \pm 1 \Omega$
Recommended excitation	: 5 ./ 15 V DC/AC
Excitation maximum	: 15 V DC/AC
Transducer material	: Stainless Steel 17-4PH (1.4548)
Atmospheric protection	: Metal bellow welded to the body

### 1.3 Essential shapes

The load cell is built according to drawing, see table 1.

The data plate is sealed against removal or will be destroyed when removed. The data plate mentions at least the information and markings as described in the OIML R60 document. In the countries where it is mandatory the load cell should bear this test certificate number: TC2097

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



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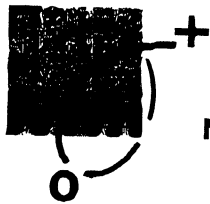
**Description and documentation** The load cell is described in the description number TC2097 revision 4 and documented in the documentation folder number TC2097-2, appertaining to this test certificate.

**Remarks** Summary of the test involved: see Appendix number TC2097 revision 4  
This revision test certificate replaces the earlier versions, including its documentation folder.

Dordrecht, 12 August, 1998  
NMI Certin B.V.  
vo

  
Willemswaard

M. Charité  
Director



Nederlands Meetinstituut

# Appendix

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Tests carried out for this test certificate:

Test	Institute	type, version, remarks
Temperature test and repeatability (20, 40, -10 and 20 °C)	NMi Certin B.V	RC1 C3 250 kN
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMI Certin B.V	RC1 C3 250 kN
Creep test (20, 40 and -10 °C)	NMI Certin B.V	RC1 C3 250 kN
Minimum load output return (20, 40 and -10 °C)	NMi Certin B.V	RC1 C3 250 kN
Barometric pressure test at room temperature	NMI Certin B.V	RC1 C3 250 kN
Humidity test	NMi Certin B.V.	RC1 C3 250 kN