Test certificate

Nederlands Meetinstituut

Number TC2331
Project number 10011719

Issued by
NMi IJkwezen 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 instrument EN 45501:1992 and by application of the OIML International Recommendation R 60 (Edition 1991). The applied error fraction p_i, meant in paragraph 3.5.4. of the standard is 0.7.

Applicant
Revere-Transducers Europe B.V.
Ramshoorn 7
4824 AG Breda
The Netherlands

In respect of
The model of a **load cell** with strain gauges, tested as part of a weighing instrument (for NAWI class (III) or (IIII)):
manufacturer : Revere-Transducers
type : 9102

Characteristics

Maximum Capacity (E_{max})	100, 200, 500, 1000 or 2500 lbs				
Accuracy Class	C				
Maximum number of load cell intervals (n)	1000	2000	3000	4000	5000
Minimum load cell verification interval (V_{min})	E_{max}/ 7000	E_{max}/ 13500	E_{max}/ 15000	E_{max}/ 15000	E_{max}/ 15000

In the description TC2331-1 further essential characteristics are described.

Description and Documentation
The load cell is described in the description number TC2331-1 and documented in the documentation folder number TC2331-2, both appertaining to this test certificate number TC2331.

Remarks
- Summary of tests involved: see Appendix number 1.

Dordrecht, 21 December 1993
NMi IJkwezen B.V.

M. Charité
Director

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Description

Number TC2331-1 appertaining
to test certificate number
TC2331
Project number 10011719

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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 document.

1.1 Essential parts

Mechanical :
The load cell is based on the principle of a bending- or shear-beam and is provided with four active strain gauges conform drawing "Outline dimensions 9102 50-2.5K lbs Cap." with drawing number 899111.

Compensation and adjustment elements :
The bridge of Wheatstone includes compensation- and adjustment resistors to compensate the effect of temperature drift, adjust the sensitivity and the in- and output resistance according drawing "Assembly 9102 ....." with number 899113 sheet 1 and 2.

Cable:
The load cell is provided with a 4-wire system.
Because no "remote-sensing" is used the cable length has to corresponde with the code on the load cell (standard 10 ft.).
The cable should be a shielded cable, the shield is not connected to the load cell.

Nomenclature:

9102-Cz-yyy-aacb-option

z Accuracy designation
yyy Standard capacity
aa Cable length in feet
c P Standard specification, no options;
T Trimmed output (current calibration option);
b 1 RTI wiring & name plate;
3 RTI wiring & customers name plate *;
5 RTE wiring & name plate;
7 RTE wiring & customer name plate *.

* These load cells are not part of this test certificate.

1.2 Essential characteristics

Minimum dead load	: 0 kg
Safe overload	: 150 % of E_{max}
Rated output	: 2 mV/V ± 0.002 mV/V (for current calibration option, 0.02 mV/V)
Input impedance	: 350 ± 3.5 ohm
Output impedance	: 350 ± 3.5 ohm
Excitation maximum	: 15 V DC or AC
Recommended excitation	: 5 - 12 V DC or AC
Element Material	: Stainless Steel 17-4 PH

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Description

1.3 Essential shapes

Sealing:
- The data plate is sealed against removal or will be destroyed when removed. The data plate consist at least the following information:
- manufacturer's mark, or name;
- E_{max} of the load cell;
- standard classification in the form C1 , C2, C3, C4 or C5;
- manufacturer's designation;
- serial number and year of manufacture;
- the number of this test certificate, TC2331.

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

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Appendix

Number 1 appertaining to test certificate number TC2331
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Tests carried out for this test certificate on a load cell with a capacity of 200 lbs, class C5.

Test	Institute	Approved (+ or -)
Temperature test and repeatability (20, 40, -10 and 20 °C)	NMi Certin B.V.	+
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	+
Creep test (20, 40 and -10 °C)	NMi Certin B.V.	+
Minimum load output return (20, 40 and -10 °C)	NMi Certin B.V.	+
Barometric pressure test at room temperature	/	Not Applicable for a beam load cell
Humidity test	NMi Certin B.V.	+