

Nederlands Meetinstituut

Test certificate

Number TC2508 revision 2
Project number 10077109
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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 Revere Transducers Europe
Ramshoorn 7
4824AG Breda
The Netherlands

In respect of The model of a bending beam load cell, with strain gauges, tested as a part of a weighing instrument.
Manufacturer : Revere Transducers
Type : SHBxR

Characteristics

Maximum capacity (E_{max})	10, 20, 30, 50, 100, 200, 350, and 500 kg				100, 200, 350 and 500 kg	
Accuracy Class	C1	C2	C3	C4	C3MI6	C3MI7.5
Maximum number of load cell intervals (n)	1000	2000	3000	4000	3000	3000
Ratio of minimum LC Verification interval $Y = E_{max} / V_{min}$	5000	10000	15000	15000	15000	15000
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$					6000	7500
Maximum load of measuring range (D_{max})	E_{max}				$0.75 * E_{max}$	

In the description TC2508 revision 2 further characteristics are described.

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No.27228701)

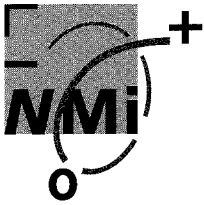
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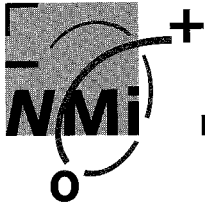
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Remarks The load cell is described in the description number TC2508 revision 2 and documented in the documentation folder number TC2508-1, appertaining to this test certificate.
Summary of the test involved: see Appendix number TC2508 revision 2
This revision test certificate replaces the earlier version, except for its documentation folder, if indicated above.

Dordrecht, 16 April, 1998
NMI Certin B.V.
1.0.

A.J. Nederlof
Director



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

Description	Drawing number	Rev.	Remarks
Outline dimensions SHBxR	E-401007	0	
Assembly SHBxR	E-401008 Sheet 1 and 2	0	

Cable:

The load cell is provided with a 4-wire or 6-wire system.

If no "remote-sensing" (4-wire) is used the cable length may not be changed, the cable length has to be approximately 3 meters or has to correspond with the Option code see below.

Nomenclature:

SHBxR-Cz-yyy-option-option

SHBxR type designation

z Accuracy designation

yyy Standard capacity (t)

Option SC; current calibration

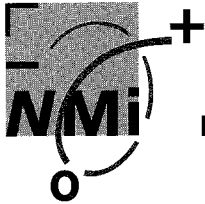
6 wire : 6-wire cable, 4-wire cable is standard

EEx(i) : certified for use in hazardous areas

Cable length, other than being standard.

1.2 Essential characteristics

Minimum dead load	: 0 kg
Safe overload	: 150 % of E_{max}
Rated Output	: $2 \text{ mV/V} \pm 0.02 \text{ mV/V}$
Input impedance	: $460 \Omega \pm 50 \Omega$
Output impedance	: $350 \Omega \pm 3.5 \Omega$
Recommended excitation	: 5 ... 12 V DC/AC
Excitation maximum	: 15 V DC/AC
Transducer material	: Stainless Steel 17-4 PH
Atmospheric protection	: Bellow welded to the element



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Description

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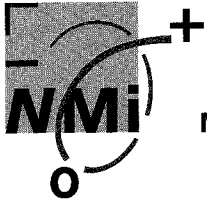
1.3 Essential shapes

The load cell is built according to drawing: "Outline dimensions SHBxR drawing number E-401007.

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: TC2508

Securing:

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



Tests carried out for this test certificate on the load cell, type SHBxR-C4-0.01-SC and SHBxR-C4-0.1-SC

Test	Institute	type, version, remarks
Temperature test and repeatability (20, 40, -10 and 20 °C)	NMi Certin B.V	10 kg and 100 kg
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V	10 kg and 100 kg
Creep test (20, 40 and -10 °C)	NMi Certin B.V	10 kg and 100 kg
Minimum load output return (20, 40 and -10 °C)	NMi Certin B.V	10 kg and 100 kg
Barometric pressure test at room temperature	NMi Certin B.V	100 kg
Humidity test	NMi Certin B.V.	10 kg