

Nederlands Meetinstituut

Test certificate

Number **TC2410** Revision 5
Project number 10073815
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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 instrument EN 45501:1992/AC:1993 and by application of the OIML International Recommendation R 60 (Edition 1991). The applied error fraction π_i , meant in paragraph 3.5.4. of the standard is 0.7.

Applicant Hottinger Baldwin Messtechnik GmbH
Im Tiefen See 45
D-64293 Darmstadt
Germany

In respect of The model of a **Compression load cell** with strain gauges, tested as part of a weighing instrument (for NAWI class **III** or **III**):
Manufacturer : HBM
Type : C2A..

Characteristics

| Type | C2AD1 | C2AC3 | C2AC4 | C2AC6 | C2AC3MI6 |
|--|------------------|-------|-------|-------|----------|
| Maximum Capacity (E_{max}) | 1, 2, 5 and 10 t | | | | |
| Accuracy Class | D | C | | | |
| Maximum number of load cell intervals (n) | 1000 | 3000 | 4000 | 6000 | 3000 |
| Ratio of minimum LC verification interval $Y = E_{max} / V_{min}$ | 3500 | 10000 | 10000 | 10000 | 10000 |
| Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$ | -- | -- | -- | -- | 6000 |

In the description TC2410 Revision 5, further characteristics are described.

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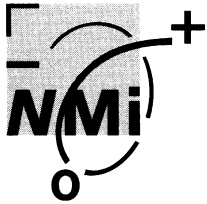
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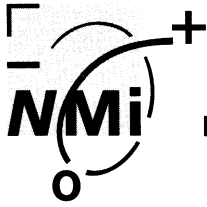
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Description and Documentation The load cell is described in the description number TC2410 Revision 5 and documented in the documentation folder number TC2410-3.

Remarks Summary of tests involved: see Appendix number TC2410 Revision 5.
This test certificate replaces the earlier versions excluding the documentation folder.

Dordrecht, 18 August 1997
NMI Certin B.V.

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 |
|------------------------------|----------------|------|---------|
| Prinzipzeichnung C2A../1-10t | 282.00-1003.3 | 2.2a | -- |

Cable:

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

The cable should be a shielded cable, the shield is connected to the load cell.

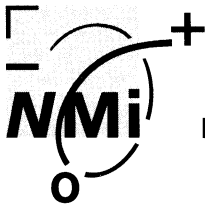
1.2 Essential characteristics

| | |
|------------------------|---|
| Minimum dead load | : 0 kg |
| Safe overload | : 150 % of E_{max} |
| Rated output | : 2 mV/V |
| Input impedance | : between 340 Ω and 450 Ω |
| Output impedance | : 356 Ω |
| Recommended excitation | : 0,5 ... 12 V DC/AC |
| Excitation maximum | : 18 V DC/AC |
| Transducer material | : "17%-iger Chromstahl" |
| Atmospheric protection | : Hermetically sealed |

1.3 Essential shapes

Sealing:

- The data plate is sealed against removal or will be destroyed when removed. The data plate contains at least the following information:
 - manufacturer's mark, or name;
 - E_{max} of the load cell;
 - standard classification in the form D1, C3, C4 or C6;
 - manufacturer's designation;
 - serial number;
 - the number of this test certificate, TC2410.



Tests carried out for this test certificate on the load cell, type C2AC3/1t, sn. 07324.

| Test | Institute | type, version, remarks |
|--|-----------------|------------------------|
| Temperature test and repeatability (20, 40, -10 and 20 °C) | NMi Certin B.V. | C2AC3/1t |
| Temperature effect on minimum dead load output (20, 40, -10 and 20 °C) | NMi Certin B.V. | C2AC3/1t |
| Creep test (20, 40 and -10 °C) | NMi Certin B.V. | C2AC3/1t |
| Minimum load output return (20, 40 and -10 °C) | NMi Certin B.V. | C2AC3/1t |
| Barometric pressure test at room temperature | NMi Certin B.V. | C2AC3/1t |
| Humidity test | NMi Certin B.V. | C2AC3/1t |