Test certificate

Number **TC8022** revision 0
Project number 11200427

Issued by	NMi Certin B.V. Hugo de Grootplein 1 3314 EG Dordrecht The Netherlands
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 R60 (Edition 2000).
Manufacturer	Hottinger Baldwin Messtechnik GmbH Im Tiefen See 45 D-64293 Darmstadt Germany
In respect of	A **universal load cell**, with strain gauges, tested as a part of a weighing instrument. Manufacturer : Hottinger Baldwin Messtechnik GmbH Type : PWSE
Characteristics	E_{max} : 100 kg up to and including 2500 kg Accuracy class : C In the description number TC8022 revision 0 further characteristics are described.
Description and documentation	The load cell is described in the description number TC8022 revision 0 and documented in the documentation folder TC8022-1, appertaining to this test certificate.
Remarks	Summary of the test involved: see Appendix number TC8022 revision 0.

Issuing Authority

NMi Certin B.V. Notified Body number 0122
24 February 2012

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Description

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
PWSE Outline & Electrical drawing	8022/0-01	0	Mechanical / Electrical
PWSE Data sheet	8022/0-02	0	Specification sheet

Cable:
- The load cell is provided with a 4-wire system:
  - The cable length shall not be modified.
  - The cable length has to be approximately 3 meters;
- The load cell is provided with a 6-wire system (="Remote-sensing"):
  - The cable length is not limited.
- The cable should be a shielded cable, the shield is connected to the load cell.

1.2 Essential characteristics

Fraction P_i	0,7	
Maximum capacity (E_{max})	100 kg up to and including 2500 kg	
Humidity Class	CH	
Temperature range	-10 °C / +40 °C	
Accuracy Class	C	
Maximum number of load cell intervals (n)	6000	5000
Ratio of minimum LC Verification interval $Y = E_{max} / V_{min}$	15000	15000
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	7000	5000

The characteristics for $\mathbf{n_{max}}$ and **Y** can be reduced separately. **Z** is proportional or equal to $\mathbf{n_{max}}$

Each produced load cell is supplied with information about its characteristics.

Minimum dead load	: 0 kg
Safe overload	: 150% of E_{max}
Rated Output	: 2,0 mV/V
Input impedance	: 390 Ω ± 15 Ω
Output impedance	: 359 Ω ± 10 Ω
Recommended excitation	: 5 - 10 V AC/DC
Excitation maximum	: 15 V AC/DC
Transducer material	: Steel
Atmospheric protection	: IP68

1.3 Essential shapes

The load cell is built according to drawing:
- "PWSE Outline & Electrical drawing", drawing number 8022/0-01.

The data plate is secured against removal by sealing 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: TC8022.

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

Appendix

Tests performed for this test certificate:

Test	Institute	type, version, remarks
Temperature test and repeatability (20, 40, -10 and 20 °C)	NMi Certin B.V.	PWSE C6 100kg PWSE C6 500kg
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	PWSE C6 100kg PWSE C6 500kg
Creep (20, 40 and –10 °C)	NMi Certin B.V.	PWSE C6 100kg PWSE C6 500kg
Minimum dead load output return (20, 40 and –10 °C)	NMi Certin B.V.	PWSE C6 100kg PWSE C6 500kg
Barometric pressure effects at room temperature	NMi Certin B.V.	PWSE C6 100kg
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	PWSE C6 100kg