Test certificate

Number **TC8008** revision 0
Project number 11200783

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 **digital load cell**, with strain gauges, tested as a part of a weighing instrument. Manufacturer : Hottinger Baldwin Messtechnik GmbH Type : PW15 AHI
Characteristics	E_{max} : 10 kg up to and including 50 kg Accuracy class : C In the description number TC8008 revision 0 further characteristics are described.
Description and documentation	The load cell is described in the description number TC8008 revision 0 and documented in the documentation folder TC8008-1, appertaining to this test certificate.
Remarks	Summary of the test involved: see Appendix number TC8008 revision 0.

Issuing Authority

NMi Certin B.V. Notified Body number 0122
25 May 2012

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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.

1.1 Essential parts

Description	Drawing number	Rev.	Remarks
Montage / Mounting PW15AHI	8008/0-01	0	Mechanical
LP AD112C RS232	8008/0-02	0	Electrical
LP AD112C CAN	8008/0-03	0	Electrical
LP AD112C RS485	8008/0-04	0	Electrical

1.2 Essential characteristics

Fraction p_{LC}	:	0,8
Maximum capacity (E_{max})	:	10 kg up to and including 50 kg
Humidity Class	:	CH
Temperature range	:	-10 °C / +40 °C
Accuracy Class	:	C
Maximum number of load cell intervals (n)	:	4000
Ratio of minimum LC Verification interval $Y = E_{max} / V_{min}$	:	10000
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	:	4000
Number of counts for Emax	:	$\geq Y \cdot 5 / p_{LC}$

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}
Recommended excitation	: 24 V DC
Excitation range	: 12 - 30 V DC
Transducer material	: Stainless steel
Atmospheric protection	: Hermetical sealed

Software:
The electronical load cell is equipped with software as described in TC8123. The software identification can be displayed on the attached terminal.

Data transmission:
The load cell is equipped with one of the following protective interfaces that have not to be secured:
- RS232;
- RS485;
- CAN;
- DeviceNet.

1.3 Essential shapes

The load cell is built according to drawing:
- "Montage / Mounting PW15AHI", drawing number 8008/0-01.

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: TC8008.

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.	PW15AHI C4 10kg
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	PW15AHI C4 10kg
Creep (20, 40 and –10 °C)	NMi Certin B.V.	PW15AHI C4 10kg
Minimum dead load output return (20, 40 and –10 °C)	NMi Certin B.V.	PW15AHI C4 10kg
Barometric pressure effects at room temperature	NMi Certin B.V.	PW15AHI C4 10kg
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	PW15AHI C4 10kg
Additional tests for load cells equipped with electronics:		
Warm-up time	NMi Certin B.V.	PW15AHI C4 10kg
Power voltage variations	NMi Certin B.V.	PW15AHI C4 10kg
Short time power reductions [OIML R76:2006]	NMi Certin B.V.	PW15AHI C4 10kg
Bursts (electrical fast transients) [OIML R76:2006]	NMi Certin B.V.	PW15AHI C4 10kg
Surges [OIML R76:2006]	NMi Certin B.V.	PW15AHI C4 10kg
Electrostatic discharge [OIML R76:2006]	NMi Certin B.V.	PW15AHI C4 10kg
Electrostatic discharges [OIML R76:2006]	NMi Certin B.V.	PW15AHI C4 10kg
Radiated immunity [OIML R76:2006]	NMi Certin B.V.	PW15AHI C4 10kg
Span stability test	NMi Certin B.V.	PW15AHI C4 10kg