Nederlands Meetinstituut

Test certificate

Number **TC6740** revision 1
Project number 705672

Issued by

NMi Certin B.V.
Hugo de Grootplein 1
3314 EG Dordrecht
The Netherlands

Notified Body Number 0122

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 2000). The applied error fraction p_i, meant in the paragraph 3.5.4. of the standard is 1.

Applicant

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

In respect of

A **Bending Beam Load Cell**, with a digital output with strain gauges, tested as a part of a weighing instrument.
Manufacturer : Hottinger Baldwin Messtechnik GmbH
Type : PW20i

Characteristics

Maximum capacity (E_{max})	5 kg up to and including 50 kg
Accuracy class	C
Maximum number of load cell verification intervals (n_{max})	4000
Ratio of minimum LC verification interval $Y = E_{max} / V_{min}$	10000

In the description number TC6740 revision 1 further characteristics are described.

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Description and documentation	The load cell is described in the description number TC6740 revision 1 and documented in the documentation folder TC6740-2, appertaining to this test certificate.
Remarks	Summary of the test involved: see Appendix number TC6740 revision 1. This revision test certificate replaces the earlier version, including its documentation folder.

Dordrecht, 4 February 2008
NMi Certin B.V.

Ing. C. Oosterman
Manager Product Certification

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
Data Sheet PW20i Digital load cell for dynamic applications	Bptb-1.0 en	0	
Data Sheet PW20i Digital load cell for dynamic applications	B1245-1.0 nmi	0	
Specifications	412528-001	0	
Leiter platte fur LP AD112 KPL	565.40-2121.3	a	
Baukastenstückliste mit Anzeige der Änderungshistorie	ZPPSTL002	-	6 pages
LP AD112C RS485	565.40-2123.3	a	
Baukastenstückliste mit Anzeige der Änderungshistorie	2-9260.1611		6 pages
LP AD112C RS232	565.40-2125.3	a	
Baukastenstückliste mit Anzeige der Änderungshistorie	2-9260.1621		6 pages
LP AD112C CAN	565.40-2124.3	a	
Baukastenstückliste mit Anzeige der Änderungshistorie	2-9260.1620		7 pages

Cable:
The load cell is provided with 6-wire or 8-wire system (4 communications, 2 power supply) and a twisted tinned shield.

1.2 Essential characteristics

Minimum dead load	:	0 kg
Safe overload	:	150 % of E_{max}
Number of counts for E_{max}	:	1 000 000 counts
Recommended excitation	:	12 V DC / 30V/DC
Transducer material	:	Aluminium
Atmospheric protection	:	Silicone rubber

Data transmission:
RS-232 or RS-485-4 wire, CANOpen, DiviceNet communication mode.
The weight output of the digital load cell is in "counts", digitally compensated for temperature and time effects.

1.3 Essential shapes

The load cell is built according to drawing:
- Data Sheet PW20i Digital load cell for dynamic applications, drawing number Bptb-1.0 en;
- Data Sheet PW20i Digital load cell for dynamic applications, drawing number B1245-1.0 nmi.

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: TC6740.

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

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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.	PW20i R5 C3 5 kg and PW20i R5 C3 20 kg
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	PW20i R5 C3 5 kg and PW20i R5 C3 20 kg
Creep (20, 40 and –10 °C)	NMi Certin B.V.	PW20i R5 C3 5 kg and PW20i R5 C3 20 kg
Minimum dead load output return (20, 40 and –10 °C)	NMi Certin B.V.	PW20i R5 C3 5 kg and PW20i R5 C3 20 kg
Barometric pressure effects at room temperature	NMi Certin B.V.	PW20i R5 C3 5 kg
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	PW20i R5 C3 5 kg
Additional tests for load cells equipped with electronics:		
Warm-up time	NMi Certin B.V.	PW20i R5 C3 5 kg
Bursts (electrical fast transients)	NMi Certin B.V.	PW20i R5 C3 5 kg and PW20i R5 C3 10 kg
Electrostatic discharge	NMi Certin B.V.	PW20i R5 C3 5 kg
Electromagnetic susceptibility	NMi Certin B.V.	PW20i R5 C3 5 kg
Span stability test	NMi Certin B.V.	PW20i R5 C3 5 kg
Relevant parts of the check list [OIML R76]	NMi Certin B.V.	PW20i R5 C3 5 kg