



Number **TC5159** revision 4
Project number 606605
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Issued by NMI Certin B.V.
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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 0.7

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

In respect of A **single point load cell**, with strain gauges, tested as a part of a weighing instrument.
Manufacturer : HBM
Type : PW6.../.., PW6K.../.., PW6C.../.. and PW6D.../..

Characteristics

Maximum capacity (E_{max})	3 kg up to and including 40 kg			
Accuracy class	C			
Maximum number of load cell verification intervals (n_{max})	3000	3000	3000	6000
Ratio of minimum LC verification interval $Y = E_{max} / V_{min}$	20000		15000	
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	--	--	7500	7500

In the description number TC5159 revision 4 further characteristics are described.

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Test certificate

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Description and documentation The load cell is described in the description number TC5159 revision 4 and documented in the documentation folder TC5159-2, appertaining to this test certificate.

Remarks Summary of the test involved: see Appendix number TC5159 revision 4
This revision test certificate replaces the earlier version(s), including its documentation folder.

Dordrecht, 22 December 2006
NMI Certin B.V.

1/0


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
PW6KRC3 Single Point Load Cell	Data Sheet D 21.77.0e	--	--
PW6C.. Single point load cells	B1994-1.0 en	--	4 pages
Specifications PW6C	B1993-nmi-en	--	
PW6D.. Single point load cells	B1996-1.0 en	--	4 pages
Specifications PW6D	B1996-nmi-en	--	

Cable:

- The load cell is provided with a 4-wire system.
The cable length has to be approximately 0.52 meters.
The cable length shall not be modified.
- Or the load cell is provided with a 6-wire system (=“Remote-sensing”).
The cable length is not limited.

Nomenclature:

PW6K x yy / zz kg, PW6D x yy / zz kg or PW6C x yy / zz kg

- x - Different version of cable such as shielded round or flat ribbon cable;
- Different thread sizes or versions like metric or inch;
- Different cable ends such as various like metric plugs or free end.
- yy - Accuracy class.
- zz - Capacity of the load cell.

1.2 Essential characteristics

Minimum dead load	: 0 kg
Safe overload	: 150 % of E_{max}
Rated Output	: 2.0 mV/V \pm 10% or 2.2 mV/V \pm 10%
Input impedance	: 420 Ω \pm 20 Ω or 380 \pm 10%
Output impedance	: 350 Ω \pm 5 Ω or 380 \pm 10%
Recommended excitation	: 5 V DC/AC
Excitation maximum	: 1...15 V DC/AC
Transducer material	: Aluminum
Atmospheric protection	: Silicone rubber



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1.3 Essential shapes

The load cell is built according to drawing:

- PW6KRC3 Single point load cell, drawing number Data Sheet D 21.77.0e;
- PW6C.. Single point load cells, drawing number B1994-1.0 en, 4 pages;
- Specifications PW6C, drawing number B1993-nmi-en;
- PW6D.. Single point load cells, drawing number B1996-1.0 en, 4 pages;
- Specifications PW6C, drawing number B1996-nmi-en

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: TC5159.

Securing:

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

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.	PW6K.C3/3kg, PW6K. C3/10kg PW6CC6/ 3kg C3MI and PW6DC6/ 10 kg C3MI
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V.	PW6K.C3/3kg, PW6K. C3/10kg PW6CC6/ 3kg C3MI and PW6DC6/ 10 kg C3MI
Creep (20, 40 and -10 °C)	NMi Certin B.V.	PW6K.C3/3kg, PW6K. C3/10kg PW6CC6/ 3kg C3MI and PW6DC6/ 10 kg C3MI
Minimum dead load output return (20, 40 and -10 °C)	NMi Certin B.V.	PW6K.C3/3kg, PW6K. C3/10kg PW6CC6/ 3kg C3MI and PW6DC6/ 10 kg C3MI
Barometric pressure effects at room temperature	NMi Certin B.V.	PW6K.C3/3kg, PW6K. C3/10kg and PW6CC6/ 3kg C3MI
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	PW6K. C3/10kg PW6CC6/ 3kg C3MI
Damp heat, cyclic: marked SH	NMi Certin B.V.	PW6K.C3/3kg