



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 0.7.

Applicant Master-K
 38 Avenue des Frères Montgolfier BP 186
 69686 Chassieu Cedex
 France

In respect of A **compression, shear beam load cell**, with strain gauges, tested as a part of a weighing instrument.
 Manufacturer : Master-K
 Type : CP series

Characteristics

Maximum capacity (E_{max})	500, 1000, 2500, 5000, 10000 and 15000 kg		
Accuracy class	C		
Maximum number of load cell verification intervals (n_{max})	1000	2000	3000
Ratio of minimum LC verification interval $Y = E_{max} / V_{min}$	10000		
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	3300		

In the description number TC6213 revision 0 further characteristics are described.

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
CP 0t5 to 15t0 : Outline drawing & dimensions	103683	0	Mechanical
Full bridge circuit CP type load cell	103593	0	Electrical

Cable:

- The load cell is provided with a 4-wire system.
The cable length has to be approximately 10 meters.
- The cable should be a shielded cable, the shield is not connected to the load cell.

1.2 Essential characteristics

Minimum dead load : 0 kg
Safe overload : 150 % of E_{max}
Rated Output : 2.5 mV/V \pm 1 % (for the range of 500 kg up to and including 2500 kg)
2 mV/V \pm 1 % (for the range of 5000 kg up to and including 15000 kg)
Input impedance : 400 Ω \pm 40 Ω
Output impedance : 352 Ω \pm 50 Ω
Recommended excitation : 10 V DC/AC
Excitation maximum : 15 V DC/AC
Transducer material : Stainless Steel
Atmospheric protection : Hermetically sealed

1.3 Essential shapes

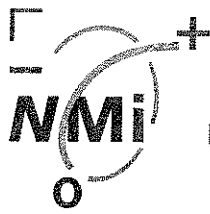
The load cell is built according to drawing:

- CP 0t5 to 15t0 : Outline drawing & dimensions, drawing number 103683.

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: TC6213.

Securing:

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



Nederlands Meetinstituut

Test certificate

Number **TC6213** revision 0
Project number 300885
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Description and documentation The load cell is described in the description number TC6213 revision 0 and documented in the documentation folder TC6213-1, appertaining to this test certificate.

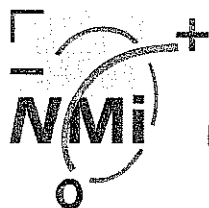
Remarks Summary of the test involved: see Appendix number TC6213 revision 0

Delft, 5 March 2003
NMI Certin B.V.

P.P.M. van Enkevort
Manager Certification Delft

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	CP 500 kg C3 and CP 5000 kg C3
Temperature effect on minimum dead load output (20, 40, -10 and 20 °C)	NMi Certin B.V	CP 500 kg C3 and CP 5000 kg C3
Creep (20, 40 and -10 °C)	NMi Certin B.V	CP 500 kg C3 and CP 5000 kg C3
Minimum dead load output return (20, 40 and -10 °C)	NMi Certin B.V	CP 500 kg C3 and CP 5000 kg C3
Barometric pressure effects at room temperature	NMi Certin B.V	CP 500 kg C3
Damp heat, cyclic: marked CH (or not marked)	NMi Certin B.V.	CP 500 kg C3



OIML CERTIFICATE OF CONFORMITY

Issuing authority

Name: NMI Certin B.V.
Address: Hugo de Grootplein 1, Dordrecht
Person responsible: P.P.M. van Enckevort

Applicant

Name: Master-K
Address: 38 Avenue des Frères Montgolfier BP 186
69686 Chassieu Cedex
France

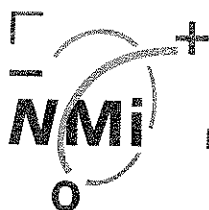
Manufacturer of the certified pattern

Name: Master-K
Address: 38 Avenue des Frères Montgolfier BP 186
69686 Chassieu Cedex
France

Identification of the certified pattern

Type : CP series
Fraction : $P_i = 0.7$
Temperature range $-10\text{ °C} / 40\text{ °C}$

Maximum capacity (E_{max})	500, 1000, 2500, 5000, 10000 and 15000 kg		
Accuracy Class	C		
Maximum number of load cell intervals (n)	1000	2000	3000
Ratio of minimum LC Verification interval $Y = E_{max} / V_{min}$	10000		
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	3300		



Nederlands Meetinstituut

Member State
The Netherlands

OIML Certificate N° R60/2000-NL1-03.07

Project number 300885

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This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report, the test certificate and the description with number TC6213 and the appertaining documentation folder), with the requirements of the following Recommendation(s) of the International Organization of Legal Metrology (OIML):

R60
edition 2000 (E)
for accuracy class C

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation(s).

This certificate does not bestow any form of legal international approval.

The conformity was established by tests described in the associated test reports:

N° R60/2000-NL1-03.07A, that includes 40 pages.

N° R60/2000-NL1-03.07B, that includes 37 pages.

The issuing authority
P.P.M. van Enckevort
Manager Certification Delft

5 March 2003

The OIML member
G.J. Faber

5 March 2003

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Important note: Apart from the mention of the certificate's reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated test report is not permitted, though they may be reproduced in full.