



Member State of OIML
Japan



OIML Certificate No.
R60/2000-JP1-11.03
Revision 1

OIML CERTIFICATE OF CONFORMITY

Issuing authority

Name: National Metrology Institute of Japan / National Institute of
Advanced Industrial Science and Technology (NMIJ / AIST)
Address: AIST Tsukuba Central 3-9, Tsukuba Ibaraki 305-8563, Japan
Person responsible: Dr. Tamotsu Nomakuchi, President of AIST

Applicant

Name: MINEBEA CO., LTD.
Address: 1-1-1, Katase, Fujisawa-shi, Kanagawa-ken, 251-8531, Japan

Manufacturer of the certified pattern

Name: MINEBEA CO., LTD.
Address: 1-1-1, Katase, Fujisawa-shi, Kanagawa-ken, 251-8531, Japan

Identification of the certified pattern:

Beam(bending) load cell

Type: C2B1B-200K-C3, C2B1B-250K-C3, C2B1B-500K-C3, C2B1B-550K-C3,
C2B1B-1T-C3, C2B1B-1.1T-C3, C2B1B-1.76T-C3, C2B1B-2T-C3,
C2B1B-2.2T-C3

Fraction: $\pi=0.7$

Temperature range: $-10\text{ }^{\circ}\text{C} / 40\text{ }^{\circ}\text{C}$



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Characteristics:

Model designation			C2B1B-200K-C3	C2B1B-xxK-C3 where xx equal to the E_{max}	C2B1B-xxT-C3 where xx equivalent to the $E_{max}/1000$
Accuracy class	Class	-	C		
Maximum number of load cell verification intervals	n_{max}	-	3000		
Humidity symbol			CH		
Minimum dead load	E_{min}	kg	0		
Maximum capacity	E_{max}	kg	200	250, 500, 550	1000, 1100, 1760, 2000, 2200
Safe load limit	E_{lim}	kg	$1.5 * E_{max}$		
Minimum verification interval	v_{min}	kg	$E_{max}/10000$		
Apportionment factor	p_{LC}		0.7		
Ratio of minimum LC Verification interval $Y = E_{max} / v_{min}$	Y	-	10000		
Ratio of minimum dead load output return $Z = E_{max} / (2 * DR)$	Z	-	3000		
Rated output		mV/V	1.6	2.0	
Excitation voltage		V DC	5 ~ 15		
Input impedance	R_{LC}	Ω	420 ± 40		
Cable length (maximum)		m	6		

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report(s) with the requirements of the following Recommendation 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.

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

The conformity was established by tests described in the associated test report no. 11-03/R60:2000, that includes 33 pages.



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The Issuing Authority
NMIJ/AIST



Dr. T. Nomakuchi
President of AIST
2012-07-20

The OIML member

Dr. Y. Miki
2012-07-20

Important note: Apart from the mention of certificate's reference number and the name of the OIML Member State in which the certificate is issued, partial quotation of the certificate and of the associated Test Report is not permitted, although either may be reproduced in full.



Evaluation Report Corrigendum 1

Load cells

Issuing Authority

Name : National Metrology Institute of Japan /National Institute
of Advanced Industrial Science and Technology (NMIJ/AIST)
Address : AIST Tsukuba Central 3, Tsukuba, Ibaraki, 305-8563, Japan

This corrigendum for the Evaluation Report (Evaluation Report Number:22-026) has been issued to correct an error and to change type names on applicant's request as follows.

Error: C2B1B-1.76T was missing in the list of Applied Type.

Change on applicant's request: "-C3" is added to each name of the Applied Type, e.g. C2B1B-200K-C3 from C2B1B-200K.

1) Applied Type stated on the front page is replaced by (changed parts are underlined):

Applied Type : C2B1B-200K-C3, C2B1B-250K-C3, C2B1B-500K-C3, C2B1B-550K-C3,
C2B1B-1T-C3, C2B1B-1.1T-C3, C2B1B-1.76T-C3,
C2B1B-2T-C3, C2B1B-2.2T-C3

2) On Page 1 of 3 pages, C2B1B-200K, C2B1B-xxK and C2B1B-xxT are replaced by C2B1B-200K-C3, C2B1B-xxK-C3 and C2B1B-xxT-C3, respectively.

3) Page 2 of 3 pages is replaced by the following Corrigendum Page 2/2 due to change of type names.

4) As a result of the above alterations, the OIML Certification number on the header of each page is replaced by R60/2000-JP1-11-03 Revision 1.

Evaluator :

Wataru Kaminaga
Legal Metrology Division
NMIJ/AIST

Signature :

W. Kaminaga

Date: 2012. 7. 13

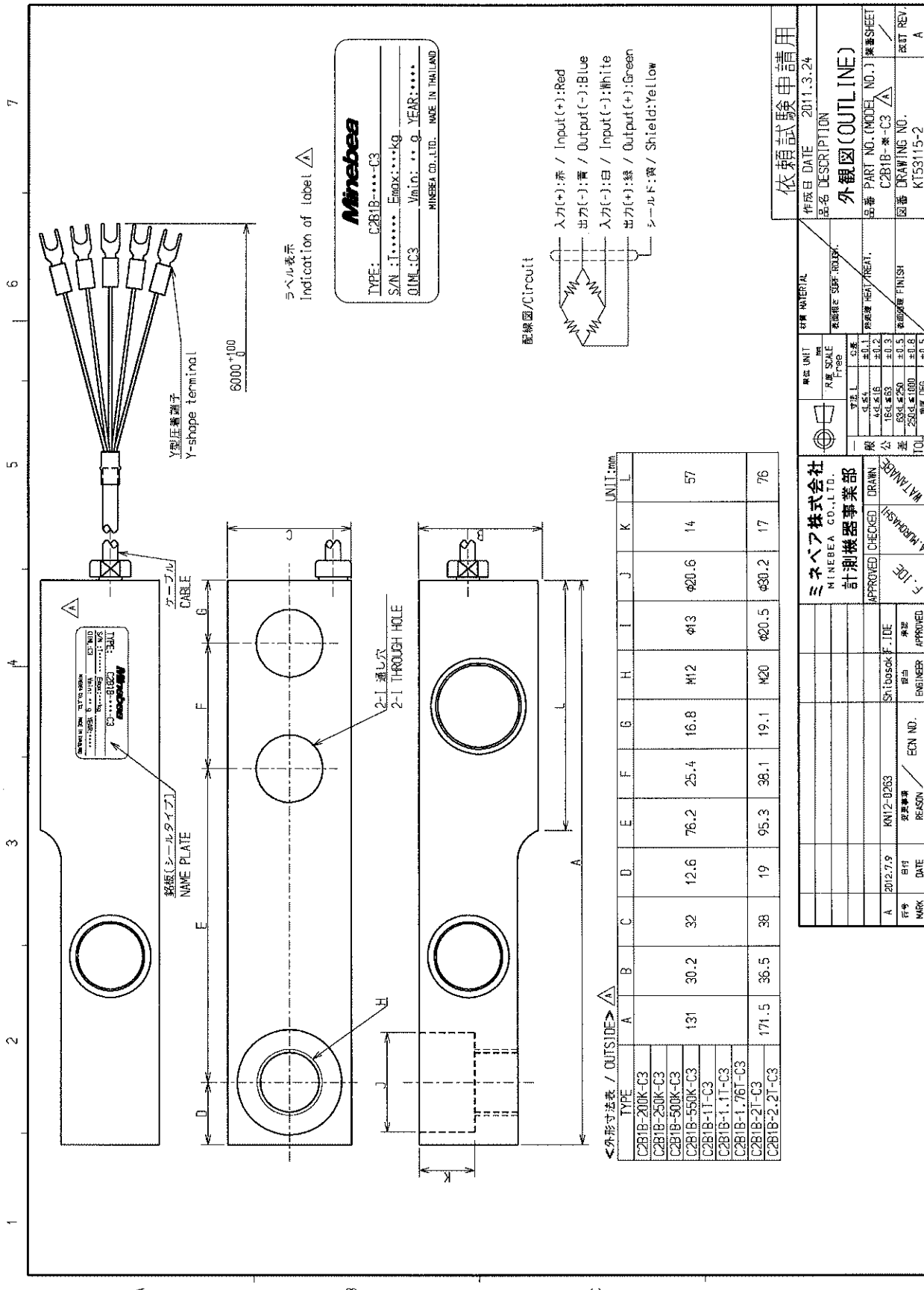
Supervisor :

Shigeki Yamaguchi
Head of Legal Metrology Division
NMIJ/AIST

Signature :

Shigeki Yamaguchi

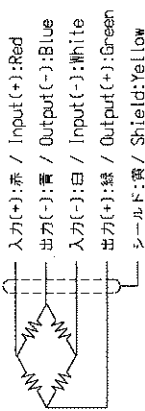
Date: 2012. 7. 13



ラベル表示
Indication of label \triangle

Minebea
TYPE: C2B1B-...-C3
S/N : I..... Emox:.....kg
OIML: C3 Vmin: .. g. YEAR:.....
MINEBEA CO., LTD. MADE IN THAILAND

配線図/Circuit



外形寸法表 / OUTSIDE \triangle UNIT:mm

TYPE	A	B	C	D	E	F	G	H	I	J	K	L
C2B1B-200K-C3												
C2B1B-250K-C3												
C2B1B-500K-C3												
C2B1B-550K-C3	131	30.2	32	12.6	76.2	25.4	16.8	M12	413	420.6	14	57
C2B1B-1.1T-C3												
C2B1B-1.76T-C3	171.5	36.5	38	19	95.3	38.1	19.1	M20	420.5	430.2	17	76
C2B1B-2.2T-C3												

依頼試験申請用
作成日 DATE 2011.3.24
品名 DESCRIPTION
外観図(OUTLINE)
品番 PART NO. (MODEL NO.) 検査シート
C2B1B-...-C3 \triangle
図番 DRAWING NO. 発訂 REV.
KT53115-2 A

検査 UNIT		公差	
尺数 SCALE	公差 TOL	公差 TOL	公差 TOL
Free	±0.1	±0.1	±0.1
0.5	±0.1	±0.1	±0.1
1	±0.1	±0.1	±0.1
2	±0.1	±0.1	±0.1
5	±0.1	±0.1	±0.1
10	±0.1	±0.1	±0.1
20	±0.1	±0.1	±0.1
50	±0.1	±0.1	±0.1
100	±0.1	±0.1	±0.1

承認者 A	2012.7.9	RN12-0263	承認者 Shtbosok F. IDE	承認者 Shtbosok F. IDE	承認者 Shtbosok F. IDE
DATE	REASON	ECN NO.	ENGINEER	APPROVED	APPROVED

公布	K	S	T	F
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