



Member State of OIML
Japan



OIML Certificate No.
R60/2000-JP1-12.04

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:

Compression load cell
Type: CC010-10T, CC010-20T, CC010-30T, CC010-50T
Fraction: $\pi=0.7$
Temperature range: $-10\text{ }^{\circ}\text{C} / 40\text{ }^{\circ}\text{C}$



Member State of OIML
Japan



OIML Certificate No.
R60/2000-JP1-12.04

Characteristics:

Model designation			CC010-xx T, 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	10000,20000,30000,50000
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	2.0
excitation voltage		V DC	5~15
Input impedance	R_{LC}	Ω	700 ± 7
Cable detail		-	10m 4wire

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. 12-10/R60:2000, that includes 19 pages.



Member State of OIML
Japan



OIML Certificate No.
R60/2000-JP1-12.04

The Issuing Authority
NMIJ/AIST

The OIML member



Dr. T. Nomakuchi
President of AIST
2012-05-21

Dr. Y. Miki
2012-05-21

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

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

Applicant : MINEBEA CO., LTD.

Manufacturer : MINEBEA CO., LTD.

Applied Type : CC010-10T, CC010-20T, CC010-30T, CC010-50T

Evaluation Report Number: 24-004

This report ensures the conformity of the applied type with the requirements of the OIML R60 (edition 2000), on the basis of evaluation of the attached test report (N° 12-10/R60:2000).

Evaluator :

Wataru Kaminaga
Legal Metrology Division
NMIJ/AIST

Signature :

W. Kaminaga

Date: 2012. 5. 18

Supervisor :

Shigeki Yamaguchi
Head of Legal Metrology Division
NMIJ/AIST

Signature :

Shigeki Yamaguchi

Date: 2012. 5. 18

Description

Technical data

Model designation			CC010-xx T, 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	10000,20000,30000,50000
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	2.0
excitation voltage		V DC	5~15
Input impedance	R_{LC}	Ω	700 ± 7
Cable detail		-	10m 4wire



National Metrology Institute of Japan

**Metrological regulation for load cells :
Test report**

Project number : LC-OIML-12-010
Test report number : 12-10 / R60:2000
Issuing authority : National Metrology Institute of Japan /National Institute of
Advanced Industrial Science and Technology (NMIJ/AIST)
AIST Tsukuba Central 3, Tsukuba Ibaraki 305-8563, Japan

Applicant : Minebea Co.,Ltd

Manufacturer : Minebea Co.,Ltd

Date of application : 2012.5.9

End of evaluation : 2012.5.14

Date of issue : 2012.5.16

Signature :

Yasuhiro Koyano

Chief of Legal Weighing Metrology Section
Mechanical Metrology Division

OIML R60
Edition 2000(E)

Testing authority

Name: National Metrology Institute of Japan
 Address: Central 3-1, 1-1-1 Umezono, Tsukuba, Ibaraki, 305-8563, Japan
 Contact information: Telephone: +81 29 861 4389 Fax: +81 29 861 4341

Applicant/Manufacturer information

Application no.: 24-004
 Application date: 2012.5.9
 Model designation: CC010-**T

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

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

Representative: Akira Murohashi
 (name, telephone)

Instrument category: Load cell: +81 466 22 7152 Documentation no.: _____

Information concerning the pattern

Accuracy class: A B C D

Maximum number of load cell verification intervals (n_{max}): 3000

Direction of loading: (for load cell characterization, see 4.6.3)

Tension Beam (shear) Compression
 Universal Beam (bending)

Safe load limit (Lim): 150% of E_{max} Apportionment factor, p_{LC} (see Note) 0.7

Limits of working temperature: (only if other than -10°C to +40°C, see 5.5.1.1)

Upper: _____ °C Lower: _____ °C

Power voltage: V_{min} 5 V V_{max} 15 V

or V: 10 V AC DC Recommended: AC DC

Humidity evaluation symbol: NH Yes No
 SH Yes No
 CH or no markings Yes No

Electronic load cell: Yes No

Note This value of p_{LC} is assumed to be 0.7 unless otherwise declared by the manufacturer.

Information concerning the pattern (continued)

Application No: 24-004

Specify other conditions that must be observed to obtain the specified performance (for example, electrical characteristics of the load cell):

Various designs within model range:

Maximum capacity E_{max} (kg)	Minimum load cell verification interval V_{min} (kg)	Minimum dead load E_{min} (kg)	Maximum number of load cell intervals n_{max}	Minimum dead load output return DR (kg)
10000	E _{max} /10000	0	3000	
20000				
30000				
50000				

All values in this table are taken from documentation pages _____.

DR information required only when applicable.

Load cell(s) submitted:

Model designation	Serial number	E_{max} (kg)
CC010-10T	T1X9993	10000

Secondary equipment (specify load adapters, etc.):

Remarks:

Summary of the test

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max} : 10000 kg n_{max} : 3000
 V_{min} : 1 kg DR: _____
 Force-generating system: Load cell performance testing device ρ_{LC} : 0.7
 Indicating instrument: HBM DMP40
 Evaluator: Fukuda

No.	Test description	Passed	Failed	Report page	Remarks
D.2	Load cell errors (E_L)	×		10	
D.3	Repeatability errors (E_R)	×		11	
D.4	Temperature effects on MDLO (C_M)	×		12	
D.5	Creep (C_C)	×		13-16	
D.5	DR(C_{DR})	×		13-16	(see Note 2) DR: -0.54 kg
D.6	Barometric pressure effects (C_p)	×		17	
D.7	Humidity effects (CH or no mark) (C_{Hmin})	×		18	
D.7	Humidity effects (CH or no mark) (C_{Hmax})	×		18	
D.8	Humidity effects (SH)				
D.9	Marking requirements	See Page 19, Check that marked values are correct.			
D.10	Load cells equipped with electronics				
D.11	Warm-up time				
D.12	Power voltage variations				
D.13	Short time power reductions				
D.14	Bursts (electrical fast transients)				
D.15	Electrostatic discharge				
D.16	Electromagnetic susceptibility				
D.17	Span stability				

The following table checks the required calculations as per the General notes provisions of C.4:

Paragraph No.	Description	n_{max}		$n_{max} \cdot 500$		$n_{max} \cdot 1000$	
		Pass	Fail	Pass	Fail	Pass	Fail
C.4.2, C.4.3, C.4.5	Check all calculations using values of n at n_{max} and at lower than n_{max}	×		×		×	
C.4.4	Check that $\leq \frac{D_{max} - D_{min}}{V_{min} \cdot n_{max}}$	Pass		Fail			
		×					

Worst case figure for minimum dead load output return error (in mass units) = DR = -0.54 kg see Note 3

- Notes:
- 1 Enter "NA" for "the test is not applicable".
 - 2 Record error to accommodate OIML R76.
 - 3 This DR value is used in association with OIML R 76.

Form D.1 (3 runs) Load test data (E_L)

Ref.: A.4.1.1 to A.4.1.11. Complete one sheet for each test temperature, one for each humidity (SH) test in A.4.6, and when applicable, one for each electronics power voltage in A.4.7.3.

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max}: 10000 kg
 n_{max}: 3000
 V_{min}: 1 kg
 P_{LC}: 0.7 DR: _____
 Force-generating system: Load cell performance testing device
 Indicating instrument: HBM DMP40
 Evaluator: Fukuda

	At start	At end	
Date:	2012/3/8	2012/3/8	
Temperature:	20.2	20.2	°C
Relative humidity:	43.6	43.4	%
Barometric pressure:	101.47	101.48	kPa
Indicator temperature:	19.9	19.9	°C

Electronics power voltage (when applicable): _____ V

Table D.1 (3 runs)

Test load (kg)	Run no. 1		Run no. 2		Run no. 3		Average indication (mV/V)	Repeatability error (mV/V)
	Indication (mV/V)	Time	Indication (mV/V)	Time	Indication (mV/V)	Time		
0	-0.000842	9:19:12						
10000	1.954750	9:19:53						
0	-0.000839	9:20:33						
10000	1.954717	9:21:13						
0	-0.000845	9:21:53						
10000	1.954695	9:22:33						
0	-0.000850	9:23:13						
0	-0.000828	9:28:12	-0.000830	9:38:32	-0.000837	9:48:51	-0.000832 *	0.000009
1000	0.194710	9:28:42	0.194703	9:39:02	0.194704	9:49:21	0.194706	0.000007
2000	0.390271	9:29:12	0.390265	9:39:32	0.390264	9:49:51	0.390267	0.000007
3000	0.585859	9:29:42	0.585850	9:40:02	0.585855	9:50:21	0.585855	0.000009
4000	0.781458	9:30:12	0.781450	9:40:32	0.781449	9:50:51	0.781452	0.000009
5000	0.977054	9:30:42	0.977048	9:41:02	0.977046	9:51:21	0.977049	0.000008
6000	1.172642	9:31:12	1.172632	9:41:32	1.172634	9:51:51	1.172636	0.000010
7000	1.368213	9:31:42	1.368207	9:42:02	1.368204	9:52:21	1.368208	0.000009
8000	1.563752	9:32:12	1.563744	9:42:32	1.563743	9:52:51	1.563746	0.000009
10000	1.954710	9:32:52	1.954704	9:43:12	1.954702	9:53:31	1.954705	0.000008
8000	1.563974	9:33:32	1.563968	9:43:52	1.563965	9:54:11	1.563969	0.000009
7000	1.368518	9:34:02	1.368515	9:44:22	1.368514	9:54:41	1.368516	0.000004
6000	1.173005	9:34:32	1.173001	9:44:52	1.172999	9:55:11	1.173002	0.000006
5000	0.977451	9:35:02	0.977446	9:45:22	0.977444	9:55:41	0.977447	0.000007
4000	0.781850	9:35:32	0.781846	9:45:52	0.781847	9:56:11	0.781848	0.000004
3000	0.586210	9:36:02	0.586205	9:46:22	0.586206	9:56:41	0.586207	0.000005
2000	0.390550	9:36:32	0.390543	9:46:52	0.390545	9:57:11	0.390546	0.000007
1000	0.194871	9:37:02	0.194866	9:47:22	0.194865	9:57:41	0.194867	0.000006
0	-0.000829	9:37:32	-0.000836	9:47:52	-0.000837	9:58:11	-0.000834	0.000008

Notes: 1 * = Average initial minimum test load indication.
 2 Absolute (not relative) time shall be recorded.

Form D.1 (3 runs) Load test data (E_L)

Ref.: A.4.1.1 to A.4.1.11. Complete one sheet for each test temperature, one for each humidity (SH) test in A.4.6, and when applicable, one for each electronics power voltage in A.4.7.3.

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max}: 10000 kg
 n_{max}: 3000
 V_{min}: 1 kg
 P_{LC}: 0.7 DR: _____
 Force-generating system: Load cell performance testing device
 Indicating instrument: HBM DMP40
 Evaluator: Fukuda

	At start	At end	
Date:	2012/3/9	2012/3/9	
Temperature:	40.1	40.1	°C
Relative humidity:	34.4	34.4	%
Barometric pressure:	101.32	101.31	kPa
Indicator temperature:	19.9	20.0	°C

Electronics power voltage (when applicable): _____ V

Table D.1 (3 runs)

Test load (kg)	Run no. 1		Run no. 2		Run no. 3		Average indication (mV/V)	Repeatability error (mV/V)
	Indication (mV/V)	Time	Indication (mV/V)	Time	Indication (mV/V)	Time		
0	-0.000919	9:36:08						
10000	1.954383	9:36:48						
0	-0.000940	9:37:28						
10000	1.954351	9:38:08						
0	-0.000952	9:38:48						
10000	1.954328	9:39:28						
0	-0.000958	9:40:08						
0	-0.000917	9:45:08	-0.00093	9:55:28	-0.000935	10:05:47	-0.000927 *	0.000018
1000	0.194633	9:45:38	0.194618	9:55:58	0.194614	10:06:17	0.194622	0.000019
2000	0.390193	9:46:08	0.390178	9:56:28	0.390174	10:06:47	0.390182	0.000019
3000	0.585772	9:46:38	0.585759	9:56:58	0.585756	10:07:17	0.585762	0.000016
4000	0.781349	9:47:08	0.781331	9:57:28	0.781328	10:07:47	0.781336	0.000021
5000	0.976915	9:47:38	0.976897	9:57:58	0.976895	10:08:17	0.976902	0.000020
6000	1.172466	9:48:08	1.172451	9:58:28	1.172448	10:08:47	1.172455	0.000018
7000	1.367989	9:48:38	1.367973	9:58:58	1.367972	10:09:17	1.367978	0.000017
8000	1.563478	9:49:08	1.563458	9:59:28	1.563459	10:09:47	1.563465	0.000020
10000	1.954316	9:49:48	1.954301	10:00:08	1.954301	10:10:27	1.954306	0.000015
8000	1.563677	9:50:28	1.563662	10:00:48	1.563663	10:11:07	1.563667	0.000015
7000	1.368266	9:50:58	1.368255	10:01:18	1.368255	10:11:37	1.368259	0.000011
6000	1.172793	9:51:28	1.172785	10:01:48	1.172781	10:12:07	1.172786	0.000012
5000	0.977274	9:51:58	0.977262	10:02:18	0.977263	10:12:37	0.977266	0.000012
4000	0.781702	9:52:28	0.781695	10:02:48	0.781694	10:13:07	0.781697	0.000008
3000	0.586086	9:52:58	0.586075	10:03:18	0.586075	10:13:37	0.586079	0.000011
2000	0.390440	9:53:28	0.390431	10:03:48	0.390429	10:14:07	0.390433	0.000011
1000	0.194766	9:53:58	0.194760	10:04:18	0.194758	10:14:37	0.194761	0.000008
0	-0.000935	9:54:28	-0.000941	10:04:48	-0.000945	10:15:07	-0.000940	0.000010

Notes: 1 * = Average initial minimum test load indication.
 2 Absolute (not relative) time shall be recorded.

Form D.1 (3 runs) Load test data (E_L)

Ref.: A.4.1.1 to A.4.1.11. Complete one sheet for each test temperature, one for each humidity (SH) test in A.4.6, and when applicable, one for each electronics power voltage in A.4.7.3.

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max}: 10000 kg
 n_{max}: 3000
 V_{min}: 1 kg
 P_{LC}: 0.7 DR: _____

	At start	At end	
Date:	2012/3/12	2012/3/12	
Temperature:	-10.1	-10.1	°C
Relative humidity:	46.5	46.3	%
Barometric pressure:	100.44	100.43	kPa
Indicator temperature:	20.0	20.0	°C

Force-generating system: Load cell performance testing device
 Indicating instrument: HBM DMP40
 Evaluator: Fukuda

Electronics power voltage
 (when applicable): _____ V

Table D.1 (3 runs)

Test load (kg)	Run no. 1		Run no. 2		Run no. 3		Average indication (mV/V)	Repeatability error (mV/V)
	Indication (mV/V)	Time	Indication (mV/V)	Time	Indication (mV/V)	Time		
0	-0.001174	9:13:29						
10000	1.954311	9:14:10						
0	-0.001060	9:14:50						
10000	1.954288	9:15:30						
0	-0.001057	9:16:10						
10000	1.954281	9:16:50						
0	-0.001056	9:17:30						
0	-0.001054	9:22:29	-0.001044	9:32:48	-0.001038	9:43:07	-0.001045 *	0.000016
1000	0.194400	9:22:59	0.194407	9:33:18	0.194414	9:43:37	0.194407	0.000014
2000	0.389908	9:23:29	0.389912	9:33:48	0.389919	9:44:07	0.389913	0.000011
3000	0.585462	9:23:59	0.585466	9:34:18	0.585471	9:44:37	0.585466	0.000009
4000	0.781025	9:24:29	0.781030	9:34:48	0.781029	9:45:07	0.781028	0.000005
5000	0.976604	9:24:59	0.976610	9:35:18	0.976608	9:45:37	0.976607	0.000006
6000	1.172189	9:25:29	1.172191	9:35:48	1.172190	9:46:07	1.172190	0.000002
7000	1.367757	9:25:59	1.367758	9:36:18	1.367757	9:46:37	1.367757	0.000001
8000	1.563303	9:26:29	1.563303	9:36:48	1.563299	9:47:07	1.563302	0.000004
10000	1.954293	9:27:09	1.954292	9:37:28	1.954288	9:47:47	1.954291	0.000005
8000	1.563546	9:27:49	1.563549	9:38:08	1.563545	9:48:27	1.563547	0.000004
7000	1.368092	9:28:19	1.368094	9:38:38	1.368093	9:48:57	1.368093	0.000002
6000	1.172586	9:28:49	1.172589	9:39:08	1.172589	9:49:27	1.172588	0.000003
5000	0.977035	9:29:19	0.977038	9:39:38	0.977037	9:49:57	0.977037	0.000003
4000	0.781457	9:29:49	0.781458	9:40:08	0.781460	9:50:27	0.781458	0.000003
3000	0.585847	9:30:19	0.585850	9:40:38	0.585857	9:50:57	0.585851	0.000010
2000	0.390223	9:30:49	0.390225	9:41:08	0.390226	9:51:27	0.390225	0.000003
1000	0.194593	9:31:19	0.194596	9:41:38	0.194599	9:51:57	0.194596	0.000006
0	-0.001038	9:31:49	-0.001034	9:42:08	-0.001028	9:52:27	-0.001033	0.000010

Notes: 1 * = Average initial minimum test load indication.
 2 Absolute (not relative) time shall be recorded.

Form D.1 (3 runs) Load test data (E_L)

Ref.: A.4.1.1 to A.4.1.11. Complete one sheet for each test temperature, one for each humidity (SH) test in A.4.6, and when applicable, one for each electronics power voltage in A.4.7.3.

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max}: 10000 kg
 n_{max}: 3000
 V_{min}: 1 kg
 P_{LC}: 0.7 DR: _____
 Force-generating system: Load cell performance testing device
 Indicating instrument: HBM DMP40
 Evaluator: Fukuda

	At start	At end	
Date:	2012/3/13	2012/3/13	
Temperature:	20.0	20.1	°C
Relative humidity:	43.9	43.7	%
Barometric pressure:	101.61	101.61	kPa
Indicator temperature:	20.0	20.0	°C

Electronics power voltage (when applicable): _____ V

Table D.1 (3 runs)

Test load (kg)	Run no. 1		Run no. 2		Run no. 3		Average indication (mV/V)	Repeatability error (mV/V)
	Indication (mV/V)	Time	Indication (mV/V)	Time	Indication (mV/V)	Time		
0	-0.000860	9:19:16						
10000	1.954758	9:19:57						
0	-0.000855	9:20:37						
10000	1.954714	9:21:17						
0	-0.000862	9:21:57						
10000	1.954700	9:22:37						
0	-0.000868	9:23:17						
0	-0.000847	9:28:17	-0.000854	9:38:35	-0.000858	9:48:55	-0.000853 *	0.000011
1000	0.194691	9:28:47	0.194682	9:39:05	0.194679	9:49:25	0.194684	0.000012
2000	0.390253	9:29:17	0.390245	9:39:35	0.390241	9:49:55	0.390246	0.000012
3000	0.585844	9:29:47	0.585837	9:40:05	0.585831	9:50:25	0.585837	0.000013
4000	0.781442	9:30:16	0.781433	9:40:35	0.781426	9:50:55	0.781434	0.000016
5000	0.977042	9:30:46	0.977032	9:41:05	0.977024	9:51:25	0.977033	0.000018
6000	1.172632	9:31:16	1.172623	9:41:35	1.172613	9:51:55	1.172623	0.000019
7000	1.368204	9:31:46	1.368194	9:42:05	1.368183	9:52:25	1.368194	0.000021
8000	1.563743	9:32:16	1.563733	9:42:35	1.563723	9:52:55	1.563733	0.000020
10000	1.954702	9:32:56	1.954696	9:43:15	1.954682	9:53:35	1.954693	0.000020
8000	1.563960	9:33:36	1.563955	9:43:55	1.563942	9:54:15	1.563952	0.000018
7000	1.368504	9:34:06	1.368500	9:44:25	1.368489	9:54:45	1.368498	0.000015
6000	1.172986	9:34:36	1.172983	9:44:55	1.172971	9:55:15	1.172980	0.000015
5000	0.977430	9:35:06	0.977426	9:45:25	0.977417	9:55:45	0.977424	0.000013
4000	0.781829	9:35:36	0.781825	9:45:55	0.781818	9:56:15	0.781824	0.000011
3000	0.586186	9:36:06	0.586181	9:46:25	0.586176	9:56:45	0.586181	0.000010
2000	0.390526	9:36:36	0.390521	9:46:55	0.390519	9:57:15	0.390522	0.000007
1000	0.194847	9:37:06	0.194841	9:47:25	0.194839	9:57:45	0.194842	0.000008
0	-0.000853	9:37:36	-0.000857	9:47:55	-0.000861	9:58:15	-0.000857	0.000008

Notes: 1 * = Average initial minimum test load indication.
 2 Absolute (not relative) time shall be recorded.

Form D.3 Repeatability errors (E_r) calculation

Ref.: 5.4; A.4.1.13; C.2.3.

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max} : 10000 kg
 n_{max} : 3000
 V_{min} : 1 kg
 P.L.C: 0.7 DR:
 Force-generating system: Load cell performance testing device Conversion factor, f: 0.000652
 Indicating instrument: HBM DMP40
 Evaluator: Fukuda

Table D.3

Test load (kg)	20.2 °C (20°C)		40.1 °C (40°C)		-10.1 °C (-10°C)		20.1 °C (20°C)		mpe (V)
	Repeatability error (mV/V)	Repeatability error (V)	Repeatability error (mV/V)	Repeatability error (V)	Repeatability error (mV/V)	Repeatability error (V)	Repeatability error (mV/V)	Repeatability error (V)	
0	0.000009	0.01	0.000018	0.03	0.000016	0.02	0.000011	0.02	0.35
1000	0.000007	0.01	0.000019	0.03	0.000014	0.02	0.000012	0.02	0.70
2000	0.000007	0.01	0.000019	0.03	0.000011	0.02	0.000012	0.02	0.70
3000	0.000009	0.01	0.000016	0.02	0.000009	0.01	0.000013	0.02	0.70
4000	0.000009	0.01	0.000021	0.03	0.000005	0.01	0.000016	0.02	1.05
5000	0.000008	0.01	0.000020	0.03	0.000006	0.01	0.000018	0.03	1.05
6000	0.000010	0.02	0.000018	0.03	0.000002	0.00	0.000019	0.03	1.05
7000	0.000009	0.01	0.000017	0.03	0.000001	0.00	0.000021	0.03	1.05
8000	0.000009	0.01	0.000020	0.03	0.000004	0.01	0.000020	0.03	1.05
10000	0.000008	0.01	0.000015	0.02	0.000005	0.01	0.000020	0.03	1.05
8000	0.000009	0.01	0.000015	0.02	0.000004	0.01	0.000018	0.03	1.05
7000	0.000004	0.01	0.000011	0.02	0.000002	0.00	0.000015	0.02	1.05
6000	0.000006	0.01	0.000012	0.02	0.000003	0.00	0.000015	0.02	1.05
5000	0.000007	0.01	0.000012	0.02	0.000003	0.00	0.000013	0.02	1.05
4000	0.000004	0.01	0.000008	0.01	0.000003	0.00	0.000011	0.02	1.05
3000	0.000005	0.01	0.000011	0.02	0.000010	0.02	0.000010	0.02	0.70
2000	0.000007	0.01	0.000011	0.02	0.000003	0.00	0.000007	0.01	0.70
1000	0.000006	0.01	0.000008	0.01	0.000006	0.01	0.000008	0.01	0.70
0	0.000008	0.01	0.000010	0.02	0.000010	0.02	0.000008	0.01	0.35

PASS: x FAIL:

Note: Error, E_r : the maximum difference between the three test indications divided by the conversion factor, f (classes C and D) or the maximum difference between the five test indications divided by the conversion factor, f (classes A and B).

D.4 Temperature effects on MDLO (C_M) calculation

Ref.: 5.5.1.3; A.4.1.14; C.2.4.

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max}: 10000 kg
 n_{max}: 3000
 V_{min}: 1 kg
 P_{LC}: 0.7 DR: _____

Force-generating system: Load cell performance testing device Conversion factor, f: 0.000652

Indicating instrument: HBM DMP40

Evaluator: Fukuda

Table D.4

Temperature °C	Indication (mV/V)	Change (C _M) (V)	Change (V _{min} /5 °C)	mpc (V _{min} /5 °C)
20.2	-0.000832			
40.1	-0.000927	-0.15	-0.12	0.70
-10.1	-0.001045	-0.18	0.06	0.70
20.1	-0.000853	0.30	0.16	0.70

PASS: FAIL:

Notes:

- 1 MDLO: minimum dead load output.
- 2 Indication: the average initial minimum test load indication obtained from Table D.1.
- 3 The maximum permissible change(mpc) allowed is: (V_{min}/5°C) for classes B, C, and D; (V_{min}/2°C) for class A.
- 4 Change, C_M(v): the difference between the observed indications, and the indications at the prior temperature, divided by the conversion factor, f.

Form D.5 Creep (Cc) and DR (CDR)

Ref.: 5.3.1, 5.3.2; A.4.2, A.4.3 Complete one sheet for each test temperature.

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max}: 10000 kg
 n_{max}: 3000
 V_{min}: 1 kg
 P_{LC}: 0.7 DR:

	At start	At end	
Date:	2012/3/8	2012/3/8	
Temperature:	20.2	20.2	°C
Relative humidity:	43.7	43.6	%
Barometric pressure:	101.48	101.42	kPa
Indicator temperature:	20.0	20.0	°C

Force generating system: Load cell performance testing device Conversion factor, f: 0.000652
 Indicating instrument: HBM DMP40
 Evaluator: Fukuda

Table D.5

Test load (kg)	Indication (mV/V)	Barometric pressure (kPa)	Time	Change (v)	mpe (v)		
0							
0							
0							
0							
(*) →	0	-0.000842	101.42	10:58:01			← initial "no load" indication
Fill in time →	Record time of initial loading →			10:58:01			
(**) →	10000	1.954732	101.42	10:58:41	0.00	0.735	← initial "load" indication
Constant maximum test load, Dmax	10000	1.954706	101.42	10:59:41	-0.04	0.735	
	10000	1.954695	101.42	11:00:41	-0.06	0.735	
	10000	1.954685	101.42	11:01:41	-0.07	0.735	
	10000	1.954683	101.41	11:02:41	-0.08	0.735	
	10000	1.954681	101.41	11:03:41	-0.08	0.735	
	10000	1.954681	101.41	11:04:41	-0.08	0.735	
	10000	1.954678	101.41	11:05:41	-0.08	0.735	
	10000	1.954677	101.41	11:06:41	-0.08	0.735	
	10000	1.954675	101.40	11:07:41	-0.09	0.735	
	10000	1.954673	101.40	11:08:41	-0.09	0.735	
	10000	1.954670	101.41	11:13:41	-0.10	0.735	
	10000	1.954667	101.40	11:18:41	-0.10	0.735	
	10000	1.954666	101.39	11:23:41	-0.10	0.735	
10000	1.954662	101.38	11:28:41	-0.11	0.735		
Fill in time →	Record time of initial unloading →			11:28:41			
(***) →	10000	-0.000896	101.38	11:29:22	-0.08	0.500	← initial indication
These rows are for reference purposes only	10000	-0.000881	101.38	11:29:42	-0.06	0.500	
	10000	-0.000878	101.38	11:30:02	-0.06	0.500	
	10000	-0.000876	101.38	11:30:22	-0.05	0.500	
	10000	-0.000874	101.38	11:30:42	-0.05	0.500	
	10000	-0.000873	101.38	11:31:02	-0.05	0.500	
30-20 minute creep difference in units:					-0.01	0.1575	

DR (v):	-0.08	30 minute creep:	PASS:	x	FAIL:	
actual time (s):	41	30-20 minute creep difference:	PASS:	x	FAIL:	
specified time (s):	40	DR ≤ 0.5v:	PASS:	x	FAIL:	
mpc for DR (v):	0.49	DR within manufacturer specified	PASS:		FAIL:	

- Notes:
- 1 Change (v) for creep: the observed indication minus the initial "load" indication (**) divided by the conversion factor, f.
 - 2 Determine the difference between the reading obtained at 20 minutes and the reading obtained at 30 minutes (see 5.3.1).
 - 3 Change (v) for DR: the initial indication (***) minus the initial "no load" indication (*) divided by the conversion factor, f.
 - 4 Absolute (not relative) time shall be recorded.

Form D.5 Creep (Cc) and DR (CDR)

Ref.: 5.3.1, 5.3.2; A.4.2, A.4.3 Complete one sheet for each test temperature.

Application no.: <u>24-004</u> Load cell model: <u>CC010-10T</u> Serial no.: <u>T1X9993</u> E _{max} : <u>10000 kg</u> n _{max} : <u>3000</u> V _{min} : <u>1 kg</u> P _{LC} : <u>0.7</u> DR: _____ Force generating system: <u>Load cell performance testing device</u> Indicating instrument: <u>HBM DMP40</u> Evaluator: <u>Fukuda</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>At start</th> <th>At end</th> <th></th> </tr> </thead> <tbody> <tr> <td>Date:</td> <td>2012/3/9</td> <td>2012/3/9</td> <td></td> </tr> <tr> <td>Temperature:</td> <td>40.1</td> <td>40.1</td> <td>°C</td> </tr> <tr> <td>Relative humidity:</td> <td>34.2</td> <td>34.1</td> <td>%</td> </tr> <tr> <td>Barometric pressure:</td> <td>101.31</td> <td>101.31</td> <td>kPa</td> </tr> <tr> <td>Indicator temperature:</td> <td>20.0</td> <td>20.1</td> <td>°C</td> </tr> </tbody> </table> <p>Conversion factor, f: <u>0.000652</u></p>		At start	At end		Date:	2012/3/9	2012/3/9		Temperature:	40.1	40.1	°C	Relative humidity:	34.2	34.1	%	Barometric pressure:	101.31	101.31	kPa	Indicator temperature:	20.0	20.1	°C
	At start	At end																							
Date:	2012/3/9	2012/3/9																							
Temperature:	40.1	40.1	°C																						
Relative humidity:	34.2	34.1	%																						
Barometric pressure:	101.31	101.31	kPa																						
Indicator temperature:	20.0	20.1	°C																						

Table D.5

	Test load (kg)	Indication (mV/V)	Barometric pressure (kPa)	Time	Change (v)	mpe (v)	
Exercise cells	0						
	0						
	0						
	0						
(*) →	0	-0.000917	101.31	11:14:56			←initial "no load" indication
Fill in time →	Record time of initial loading →			11:14:56			
(**) →	10000	1.954362	101.31	11:15:36	0.00	0.735	←initial "load" indication
Constant maximum test load, Dmax	10000	1.954319	101.31	11:16:36	-0.07	0.735	
	10000	1.954304	101.31	11:17:36	-0.09	0.735	
	10000	1.954296	101.31	11:18:36	-0.10	0.735	
	10000	1.954292	101.30	11:19:36	-0.11	0.735	
	10000	1.954286	101.30	11:20:36	-0.12	0.735	
	10000	1.954281	101.30	11:21:36	-0.12	0.735	
	10000	1.954275	101.30	11:22:36	-0.13	0.735	
	10000	1.954273	101.30	11:23:36	-0.14	0.735	
	10000	1.954270	101.30	11:24:36	-0.14	0.735	
	10000	1.954266	101.30	11:25:36	-0.15	0.735	
	10000	1.954262	101.30	11:30:37	-0.15	0.735	
	10000	1.954253	101.29	11:35:37	-0.17	0.735	
10000	1.954247	101.28	11:40:37	-0.18	0.735		
10000	1.954241	101.27	11:45:37	-0.19	0.735		
Fill in time →	Record time of initial unloading →			11:45:37			
(***) →	10000	-0.001023	101.27	11:46:18	-0.16	0.500	←initial indication
These rows are for reference purposes only	10000	-0.001000	101.27	11:46:39	-0.13	0.500	
	10000	-0.000991	101.27	11:46:59	-0.11	0.500	
	10000	-0.000986	101.27	11:47:19	-0.11	0.500	
	10000	-0.000982	101.27	11:47:39	-0.10	0.500	
	10000	-0.000978	101.27	11:47:59	-0.09	0.500	
30-20 minute creep difference in units:					-0.02	0.1575	

DR (v):	-0.16	30 minute creep:	PASS:	x	FAIL:	
actual time (s):	41	30-20 minute creep difference:	PASS:	x	FAIL:	
specified time (s):	40	DR ≤ 0.5v:	PASS:	x	FAIL:	
mpc for DR (v):	0.49	DR within manufacturer specified	PASS:		FAIL:	

- Notes:
- 1 Change (v) for creep: the observed indication minus the initial "load" indication (**) divided by the conversion factor, f.
 - 2 Determine the difference between the reading obtained at 20 minutes and the reading obtained at 30 minutes (see 5.3.1).
 - 3 Change (v) for DR: the initial indication (***) minus the initial "no load" indication (*) divided by the conversion factor, f.
 - 4 Absolute (not relative) time shall be recorded.

Form D.5 Creep (Cc) and DR (CDR)

Ref.: 5.3.1, 5.3.2; A.4.2, A.4.3 Complete one sheet for each test temperature.

Application no.:	24-004	Date:	At start	At end	
Load cell model:	CC010-10T		2012/3/12	2012/3/12	
Serial no.:	T1X9993	Temperature:	-10.1	-10.1	°C
E _{max} :	10000 kg	Relative humidity:	46.5	46.3	%
n _{max} :	3000	Barometric pressure:	100.44	100.43	kPa
V _{min} :	1 kg	Indicator temperature:	20.0	20.0	°C
P _{LC} :	0.7	DR:			
Force generating system:	Load cell performance testing device	Conversion factor, f:	0.000652		
Indicating instrument:	HBM DMP40				
Evaluator:	Fukuda				

Table D.5

Test load (kg)	Indication (mV/V)	Barometric pressure (kPa)	Time	Change (v)	mpe (v)	
0						
0						
0						
0						
(*) →	0	-0.001061	100.42	10:52:17		←initial "no load" indication
Fill in time →	Record time of initial loading →		10:52:17			
(**) →	10000	1.954317	100.43	10:52:57	0.00	0.735 ←initial "load" indication
Constant maximum test load, Dmax	10000	1.954301	100.43	10:53:57	-0.02	0.735
	10000	1.954298	100.43	10:54:57	-0.03	0.735
	10000	1.954295	100.43	10:55:57	-0.03	0.735
	10000	1.954301	100.43	10:56:57	-0.02	0.735
	10000	1.954298	100.43	10:57:57	-0.03	0.735
	10000	1.954295	100.42	10:58:57	-0.03	0.735
	10000	1.954299	100.43	10:59:57	-0.03	0.735
	10000	1.954298	100.43	11:00:57	-0.03	0.735
	10000	1.954296	100.42	11:01:57	-0.03	0.735
	10000	1.954298	100.42	11:02:57	-0.03	0.735
	10000	1.954306	100.41	11:07:57	-0.02	0.735
	10000	1.954306	100.41	11:12:57	-0.02	0.735
	10000	1.954310	100.42	11:17:57	-0.01	0.735
	10000	1.954314	100.42	11:22:57	0.00	0.735
Fill in time →	Record time of initial unloading →		11:22:57			
(***) →	10000	-0.001041	100.42	11:23:38	0.03	0.500 ←initial indication
These rows are for reference purposes only	10000	-0.001036	100.42	11:23:58	0.04	0.500
	10000	-0.001035	100.42	11:24:18	0.04	0.500
	10000	-0.001036	100.42	11:24:38	0.04	0.500
	10000	-0.001037	100.41	11:24:58	0.04	0.500
	10000	-0.001038	100.41	11:25:18	0.04	0.500
	30-20 minute creep difference in units:				0.01	0.1575

DR (v):	0.03	30 minute creep:	PASS:	x	FAIL:	
actual time (s):	41	30-20 minute creep difference:	PASS:	x	FAIL:	
specified time (s):	40	DR ≤ 0.5v:	PASS:	x	FAIL:	
mpe for DR (v):	0.49	DR within manufacturer specified DR requirements:	PASS:		FAIL:	

- Notes:
- 1 Change (v) for creep: the observed indication minus the initial "load" indication (**) divided by the conversion factor, f.
 - 2 Determine the difference between the reading obtained at 20 minutes and the reading obtained at 30 minutes (see 5.3.1).
 - 3 Change (v) for DR: the initial indication (***) minus the initial "no load" indication (*) divided by the conversion factor, f.
 - 4 Absolute (not relative) time shall be recorded.

Form D.5 Creep (Cc) and DR (CDR)

Ref.: 5.3.1, 5.3.2; A.4.2, A.4.3 Complete one sheet for each test temperature.

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max}: 10000 kg
 n_{max}: 3000
 V_{min}: 1 kg
 P_{LC}: 0.7 DR: _____
 Force generating system: Load cell performance testing device
 Indicating instrument: HBM DMP40
 Evaluator: Fukuda

	At start	At end	
Date:	2012/3/13	2012/3/13	
Temperature:	20.1	20.2	°C
Relative humidity:	43.8	43.8	%
Barometric pressure:	101.61	101.61	kPa
Indicator temperature:	19.9	20.0	°C

Conversion factor, f: 0.000652

Table D.5

Test load (kg)	Indication (mV/V)	Barometric pressure (kPa)	Time	Change (v)	mpe (v)		
0							
0							
0							
0							
(*) → 0	-0.000865	101.60	10:58:04			←initial "no load" indication	
Fill in time →	Record time of initial loading →		10:58:04				
(**) →	10000	1.954728	101.61	10:58:44	0.00	0.735	←initial "load" indication
	10000	1.954695	101.61	10:59:44	-0.05	0.735	
	10000	1.954689	101.61	11:00:44	-0.06	0.735	
	10000	1.954682	101.61	11:01:44	-0.07	0.735	
	10000	1.954676	101.61	11:02:44	-0.08	0.735	
	10000	1.954675	101.61	11:03:44	-0.08	0.735	
	10000	1.954676	101.61	11:04:44	-0.08	0.735	
	10000	1.954674	101.60	11:05:44	-0.08	0.735	
	10000	1.954673	101.61	11:06:44	-0.08	0.735	
	10000	1.954668	101.61	11:07:44	-0.09	0.735	
	10000	1.954667	101.61	11:08:44	-0.09	0.735	
	10000	1.954661	101.60	11:13:44	-0.10	0.735	
	10000	1.954655	101.61	11:18:44	-0.11	0.735	
	10000	1.954656	101.60	11:23:44	-0.11	0.735	
	10000	1.954656	101.60	11:28:44	-0.11	0.735	
Fill in time →	Record time of initial unloading →		11:28:44				
(***) →	10000	-0.000909	101.60	11:29:26	-0.07	0.500	←initial indication
	10000	-0.000895	101.60	11:29:46	-0.05	0.500	
	10000	-0.000892	101.60	11:30:06	-0.04	0.500	
	10000	-0.000890	101.60	11:30:26	-0.04	0.500	
	10000	-0.000889	101.60	11:30:46	-0.04	0.500	
	10000	-0.000887	101.61	11:31:06	-0.03	0.500	
30-20 minute creep difference in units:				0.00	0.1575		

DR (v):	-0.07	30 minute creep:	PASS:	x	FAIL:	
actual time (s):	41	30-20 minute creep difference:	PASS:	x	FAIL:	
specified time (s):	40	DR ≤ 0.5v:	PASS:	x	FAIL:	
mpe for DR (v):	0.49	DR within manufacturer specified	PASS:		FAIL:	

- Notes: 1 Change (v) for creep: the observed indication minus the initial "load" indication (**) divided by the conversion factor, f.
 2 Determine the difference between the reading obtained at 20 minutes and the reading obtained at 30 minutes (see 5.3.1).
 3 Change (v) for DR: the initial indication (***) minus the initial "no load" indication (*) divided by the conversion factor, f.
 4 Absolute (not relative) time shall be recorded.

Form D.6 Barometric pressure effects (Cp)

Ref.: 5.5.2; A.4.4.

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max} : 10000 kg
 n_{max} : 3000
 V_{min} : 1 kg
 P_{LC} : 0.7 DR: _____

	At start	At end	
Date:	2012/3/14	2012/3/14	
Test temperature:	19.7	19.7	°C
Relative humidity:	53.5	53.9	%
Barometric pressure:	101.75	101.75	kPa
Indicator temperature:	20.0	20.0	°C

Force-generating system: - Conversion factor, f: 0.000652
 Indicating instrument: HBM DMP40
 Evaluator: Fukuda

Table D.6

Pressure (kPa)	Indication (mV/V)	Time	Change (V)	Change (v_{min}/kPa)	mpc (v_{min}/kPa)
101.75	-0.013534	16:21	0.00	0.00	0
102.75	-0.013456	16:21	0.12	0.40	1
101.75	-0.013524	16:22	-0.10	0.35	1
100.75	-0.013592	16:22	-0.10	0.35	1
101.75	-0.013524	16:23	0.10	0.35	1

PASS: FAIL:

Remarks:

- Notes:
- 1 Change (v): the difference between the observed indication and the initial indication divided by the conversion factor, f.
 - 2 Although A.4.4 specifies a change of only 1 kPa for this test, additional measurements may be taken.
 - 3 Absolute (not relative) time shall be recorded.

Form D.7 Humidity effects (CH or no mark)

Ref.: 5.5.3.1;A.4.5.

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max}: 10000 kg
 n_{max}: 3000
 V_{min}: 1 kg
 P_{LC}: 0.7 DR: _____
 Force generating system: Load cell performance testing device
 Indicating instrument: HBM DMP40
 Evaluator: Fukuda

	At start	At end	
Date:	2012/3/21	2012/4/3	
Temperature:	20.0	20.1	°C
Relative humidity:	44.0	44.0	%
Barometric pressure:	101.14	100.96	kPa
Indicator temperature:	20.1	19.9	°C

Conversion factor, f: 0.000652
 Conditions during damp heat cyclic test:
 Chamber temp.(high): 40.2 °C Relative humidity: 94.8 %
 Chamber temp.(low): 24.9 °C Relative humidity: 96.0 %

Table D.7

Test load (kg)	Before humidity test		After humidity test		Change (v)	mpe (v)
	Indication (mV/V)	Time	Indication (mV/V)	Time		
0	-0.000897	10:02:26	-0.000474	9:16:39		
10000	1.954785	10:03:06	1.955081	9:17:20		
0	-0.000897	10:03:47	-0.000487	9:18:00		
10000	1.954773	10:04:27	1.955047	9:18:41		
0	-0.000902	10:05:08	-0.000496	9:19:21		
10000	1.954750	10:05:48	1.955022	9:20:01		
0	-0.000902	10:06:29	-0.000500	9:20:42		
0	-0.000884	10:11:33	-0.000477	9:25:46		
10000	1.954759	10:12:13	1.955032	9:26:26		
0	-0.000902	10:12:54	-0.000499	9:27:07		
10000	1.954731	10:13:34	1.955007	9:27:47		
0	-0.000908	10:14:15	-0.000505	9:28:27		
10000	1.954730	10:14:55	1.954989	9:29:07		
0	-0.000910	10:15:36	-0.000508	9:29:48		
0						
0						
Average(⊖)	-0.000901		-0.000497		0.62	120 ← ≤ 4% n _{max}
Average(⊕)	1.954740		1.955009			
Averages difference(*)	1.955641		1.955507		-0.21	1.0v

(⊖) Indications at minimum test load

PASS: x FAIL:

(⊕) Indications at maximum test load (see Note 3)

PASS: x FAIL:

(*) Average, see 5.5.3.1 and C.2.7

- Notes:
- 1 This test is not necessary if the load cell is marked NH or SH.
 - 2 Change(v): the difference between the after indication and the before indication divided by the conversion factor, f.
 - 3 Use five test runs for classes A and B; use three test runs for classes C and D.
 - 4 Absolute (not relative) time shall be recorded.

Form D.9 Marking requirements

Ref.: 4.6, 4.7.

Application no.: 24-004
 Load cell model: CC010-10T
 Serial no.: T1X9993
 E_{max} : 10000 kg
 n_{max} : 3000
 V_{min} : 1 kg
 P_{LC} : 0.7 DR: _____
 Force-generating system: -
 Indicating instrument: HBM DMP40
 Evaluator: Fukuda

Table D.9.1

R 60 reference	Mandatory information	On load cell	In document
4.6.1	Accuracy class designation	+	+
4.6.2	Maximum number of load cell verification intervals, n_{max}	-	+
4.6.3	Loading designation (if necessary)	-	-
4.6.4	Working temperature designation	-	-
4.6.5.1	Humidity symbol "NH"	/	+
4.6.5.3	Humidity symbol "SH"	/	/
4.6.6.1, 4.7.1	Name or trademark of manufacturer (see Note 1)	+	+
4.6.6.1, 4.7.1	Manufacturer's own designation or load cell model (see Note 1)	+	+
4.6.6.1, 4.7.1	Serial number (see Note 1)	+	+
4.6.6.1	Year of manufacture	+	+
4.6.6.1	Minimum dead load, E_{min}	-	+
4.6.6.1, 4.7.1	Maximum capacity, E_{max} (see Note 1)	+	+
4.6.6.1	Safe load limit, E_{lim}	-	+
4.6.6.1	Minimum load cell verification interval (v_{min})	+	+
4.6.6.1	Other pertinent conditions	-	-
4.6.6.1	Apportionment factor, P_{LC} (if not equal to 0.7)	/	/
4.6.7	Standard classification	-	-
4.6.8	Multiple classifications	-	-

Table D.9.2

R 60 reference	Non-mandatory additional information	On load cell	In document
4.6.5.2	Humidity symbol "CH"	/	/
4.6.6.2	Relative v_{min} , Y	-	-
4.6.6.2	Relative DR, Z	-	-

Include references to the following:

Documents supplied with load cells: _____

Diagrams showing markings on load cells: _____

- Notes:
- 1 Required both on load cell and in document.
 - 2 Indicate that the marking is present with a "+".
 - 3 Indicate that the marking is not present with a "-".
 - 4 Indicate that the marking is not applicable with a "/".