



R 60 Declaration of Mutual Confidence Rev. 6

Revision	Date of revision	Nature of the revision
Rev.0	29/09/2006	Initial document
Rev.1	12/12/2007	With the inclusion of new participants, changes in participation status and new additional national requirements
Rev.2	17/09/2008	Change in the designation of the South African Legal Metrology Body
Rev.3	02/02/2009	Change in the status of NWML's participation
Rev.4	04/08/2009	Change in the layout of the DoMC Change in the designation of the United Kingdom Participant Withdrawal of the additional national requirement R 60 DoMC-04 from Canada Change in the means used by Japan to demonstrate competence Change in the testing capabilities of NMIJ/AIST (Japan) Change in the participation status of Australia Specific statement concerning load cells with humidity classification NH
Rev.5	24/09/2009	With the inclusion of a new Issuing Participant
Rev 6	01/11/2011	Full periodic review. Withdrawal of the additional national requirement R 60 DoMC-03 and R 60 DoMC-05 from Canada

1. Relevant OIML Recommendation:

OIML R 60 “Metrological regulation for load cells” – Edition 2000

2. Items in Recommendation not covered

Not applicable

3. OIML Issuing Authorities and their Testing Laboratories

State	Issuing Authority	Testing Laboratories
China	AQSIQ, General Administration of Quality Supervision, Inspection and Quarantine	NIM, National Institute of Metrology
France	LNE, Laboratoire National de Métrologie et d'Essais	LNE, Laboratoire National de Métrologie et d'Essais
Germany	PTB, Physikalisch-Technische Bundesanstalt	PTB, Physikalisch-Technische Bundesanstalt
Japan	NMIJ/AIST, National Metrology Institute of Japan	NMIJ/AIST, National Metrology Institute of Japan
Netherlands	NMi Certin B.V.	NMi Certin B.V.
Switzerland	Federal Office of Metrology METAS	Federal Office of Metrology METAS
United Kingdom	NMO, National Measurement Office	NMO, National Measurement Office

4. Range of evaluation capability

This document defines a synthesis of the testing capabilities established on the basis of the internal testing facilities of the Testing Laboratories.

The use of external testing facilities may lead to higher capabilities.

Manufacturers are invited to contact the Testing Laboratories for any additional detailed information.

4.1. NIM, National Institute of Metrology (China)

	Class A	Class B	Class C	Class D
Minimum load D_{\min} (kg)	N/A	0	0	0
Maximum load D_{\max} (kg)	N/A	100 000	100 000	100 000
Maximum number of load cell verification intervals n_{\max}	N/A	100 000	10 000	1 000
Minimum load cell verification interval v_{\min}	N/A	0.1 g	0.1 g	0.1 g
Type of loads to be tested	<input checked="" type="checkbox"/> Tension <input checked="" type="checkbox"/> Beam (shear) <input checked="" type="checkbox"/> Universal		<input checked="" type="checkbox"/> Compression <input checked="" type="checkbox"/> Beam (bending)	
Type of tests related to humidity effects	<input type="checkbox"/> Damp heat, steady state		<input checked="" type="checkbox"/> Damp heat, cyclic test	
Range for temperature effects	from $-10\text{ }^{\circ}\text{C}$ to $+40\text{ }^{\circ}\text{C}$			

4.2. LNE, Laboratoire National de Métrologie et d'Essais (France)

	Class A	Class B	Class C	Class D
Minimum load D_{\min} (kg)	N/A	N/A	0	0
Maximum load D_{\max} (kg)	N/A	N/A	51 000	51 000
Maximum number of load cell verification intervals n_{\max}	N/A	N/A	10 000	1 000
Minimum load cell verification interval v_{\min}	N/A	N/A	0.2 g	2.0 g
Type of loads to be tested	<input checked="" type="checkbox"/> Tension <input checked="" type="checkbox"/> Beam (shear) <input checked="" type="checkbox"/> Universal		<input checked="" type="checkbox"/> Compression <input checked="" type="checkbox"/> Beam (bending)	
Type of tests related to humidity effects	<input checked="" type="checkbox"/> Damp heat, steady state		<input checked="" type="checkbox"/> Damp heat, cyclic test	
Range for temperature effects	from $-10\text{ }^{\circ}\text{C}$ to $+40\text{ }^{\circ}\text{C}$			

4.3. PTB, Physikalisch-Technische Bundesanstalt (Germany)

	Class A	Class B	Class C	Class D
Minimum load D_{\min}	1 mg	1 mg	1 mg	1 mg
Maximum load D_{\max} (kg)	10	3 000	200 000	200 000
Maximum number of load cell verification intervals n_{\max}	1 000 000	100 000	10 000	1 000
Minimum load cell verification interval V_{\min}	0.01 g	0.01 g	0.01 g	0.01 g
Type of loads to be tested	<input checked="" type="checkbox"/> Tension <input checked="" type="checkbox"/> Beam (shear) <input checked="" type="checkbox"/> Universal		<input checked="" type="checkbox"/> Compression <input checked="" type="checkbox"/> Beam (bending)	
Type of tests related to humidity effects	<input checked="" type="checkbox"/> Damp heat, steady state		<input checked="" type="checkbox"/> Damp heat, cyclic test	
Range for temperature effects	from $-25\text{ }^{\circ}\text{C}$ to $+55\text{ }^{\circ}\text{C}$			

4.4. NMIJ/AIST, National Metrology Institute of Japan (Japan)

	Class A	Class B	Class C	Class D
Minimum load D_{\min} (kg)	N/A	N/A	0	0
Maximum load D_{\max} (kg)	N/A	N/A	20 000	20 000
Maximum number of load cell verification intervals n_{\max}	N/A	N/A	6 000	1 000
Minimum load cell verification interval V_{\min}	N/A	N/A	0.01 kg	0.01 kg
Type of loads to be tested	<input checked="" type="checkbox"/> Tension <input checked="" type="checkbox"/> Beam (shear) <input checked="" type="checkbox"/> Universal		<input checked="" type="checkbox"/> Compression <input checked="" type="checkbox"/> Beam (bending)	
Type of tests related to humidity effects	<input checked="" type="checkbox"/> Damp heat, steady state		<input checked="" type="checkbox"/> Damp heat, cyclic test	
Range for temperature effects	from $-10\text{ }^{\circ}\text{C}$ to $+40\text{ }^{\circ}\text{C}$			

4.5. NMi Certin B.V. (The Netherlands)

	Class A	Class B	Class C	Class D
Minimum load D_{\min} (kg)	N/A	0	0	0
Maximum load D_{\max} (kg)	N/A	50	25 000	25 000
Maximum number of load cell verification intervals n_{\max}	N/A	70 000	10 000	1 000
Minimum load cell verification interval v_{\min}	N/A	0.1 g	0.1 g	0.1 g
Type of loads to be tested	<input checked="" type="checkbox"/> Tension <input checked="" type="checkbox"/> Beam (shear) <input checked="" type="checkbox"/> Universal		<input checked="" type="checkbox"/> Compression <input checked="" type="checkbox"/> Beam (bending)	
Type of tests related to humidity effects	<input checked="" type="checkbox"/> Damp heat, steady state		<input checked="" type="checkbox"/> Damp heat, cyclic test	
Range for temperature effects	from $-10\text{ }^{\circ}\text{C}$ to $+40\text{ }^{\circ}\text{C}$			

4.6. Federal Office of Metrology METAS (Switzerland)

	Class A	Class B	Class C	Class D
Minimum load D_{\min} (kg)	5	5	5	5
Maximum load D_{\max} (kg)	11 000	200 000	200 000	200 000
Maximum number of load cell verification intervals n_{\max}	50 000	50 000	10 000	1 000
Minimum load cell verification interval v_{\min}	0.011 kg	0.011 kg	0.011 kg	0.011 kg
Type of loads to be tested	<input checked="" type="checkbox"/> Tension <input checked="" type="checkbox"/> Beam (shear) <input checked="" type="checkbox"/> Universal		<input checked="" type="checkbox"/> Compression <input checked="" type="checkbox"/> Beam (bending)	
Type of tests related to humidity effects	<input type="checkbox"/> Damp heat, steady state		<input checked="" type="checkbox"/> Damp heat, cyclic test	
Range for temperature effects	Lower limit: $-18\text{ }^{\circ}\text{C}$ Upper limit: $+50\text{ }^{\circ}\text{C}$			

4.7. NMO, National Measurement Office (United Kingdom)

	Class A	Class B	Class C	Class D
Minimum load D_{\min} (kg)	N/A	N/A	0	0
Maximum load D_{\max} (kg)	N/A	N/A	2 000	2 000
Maximum number of load cell verification intervals n_{\max}	N/A	N/A	10 000	1 000
Minimum load cell verification interval v_{\min}	N/A	N/A	0.2 g	2 g
Type of loads to be tested	<input checked="" type="checkbox"/> Tension <input checked="" type="checkbox"/> Beam (shear) <input checked="" type="checkbox"/> Universal		<input checked="" type="checkbox"/> Compression <input checked="" type="checkbox"/> Beam (bending)	
Type of tests related to humidity effects	<input checked="" type="checkbox"/> Damp heat, steady state		<input checked="" type="checkbox"/> Damp heat, cyclic test	
Range for temperature effects	from -10 °C to +40 °C			

5. Additional requirements

State	Name of requirement	Requirements and applicable Test procedure Reference document
United States	Accuracy class III L	R 60 DoMC-01
United States	Marking	R 60 DoMC-02

Conformity to these above-mentioned requirements may be evaluated by the following OIML Issuing Authorities and their Testing Laboratories:

State	Issuing Authority	Testing Laboratories
France	LNE, Laboratoire National de Métrologie et d'Essais	LNE, Laboratoire National de Métrologie et d'Essais
Germany	PTB, Physikalisch-Technische Bundesanstalt	PTB, Physikalisch-Technische Bundesanstalt
Netherlands	NMi Certin B.V.	NMi Certin B.V.
Switzerland	Federal Office of Metrology METAS	Federal Office of Metrology METAS
United Kingdom	NMO, National Measurement Office	NMO, National Measurement Office

Manufacturers are invited to contact the Testing Laboratories for any additional detailed information.

6. Means used for establishing mutual confidence in the competence of Testing Laboratories

State	Means of establishing mutual confidence	
	Accreditation	Peer assessment
China	×	
France	×	
Germany		×
Japan	×	
Netherlands	×	
Switzerland		×
United Kingdom	×	

7. Participation

The Participants and Associates indicated below have signed the DoMC to accept and utilize Test Reports and Certificates issued by the above-mentioned Issuing Participants in their national type approval program for the category of instruments specified in 1. This DoMC has been established in accordance with the requirements of OIML B 10-1 (2004) *Framework for a Mutual Acceptance Arrangement on OIML Type Evaluations* and its Amendment (2006).

State	Identity of Participants and Associates	Status of Participation	Date of Participation
Australia	NMI, National Measurement Institute of Australia	Issuing Participant	From 2006.09.29 to 2009.06.19
		Utilizing Participant	From 2009.06.20
Bulgaria	Bulgarian Institute of Metrology	Utilizing Participant	From 2006.09.29
Canada	Measurement Canada	Utilizing Participant	From 2007.12.12
China	AQSIQ, General Administration of Quality Supervision, Inspection and Quarantine	Issuing Participant	From 2006.09.29
France	LNE, Laboratoire National de Métrologie et d'Essais	Issuing Participant	From 2006.09.29
Germany	PTB, Physikalisch-Technische Bundesanstalt	Issuing Participant	From 2009.09.24
Israel	Ministry of Industry, Trade & Labor – Legal Metrology Department	Utilizing Participant	From 2006.09.29
Japan	NMIJ/AIST, National Metrology Institute of Japan Issuing participant	Issuing Participant	From 2006.09.29
Netherlands	NMi Certin B.V.	Utilizing Participant	From 2006.09.29 to 2007.12.11
		Issuing Participant	From 2007.12.12
New Zealand	MCA/MAPSS, Ministry of Consumer Affairs - Measurement and Product Safety Service	Utilizing Participant	From 2006.09.29
Russian Federation	VNIIMS, Russian Research Institute for Metrological Service	Utilizing Participant	From 2006.09.29
Saudi Arabia	SASO, Saudi Arabian Standards Organization	Utilizing Participant	From 2006.09.29
Serbia	ZMDM, Bureau of Measures and Precious Metals	Utilizing Participant	From 2006.09.29
Slovakia	SLM, Slovak Legal Metrology (Banská Bystrica)	Utilizing Participant	From 2006.09.29

State	Identity of Participants and Associates	Status of Participation	Date of Participation
South Africa	NRCS, National Regulator for Compulsory Specifications, Legal Metrology Department	Utilizing Participant	From 2006.09.29
Switzerland	Federal Office of Metrology METAS	Issuing Participant	From 2006.09.29
United Kingdom	NMO, National Measurement Office	Utilizing Participant	From 2006.09.29 to 2009.02.01
		Issuing Participant	From 2009.02.02
United States	NCWM, National Conference on Weights and Measures	Utilizing Participant	From 2006.09.29

8. Specific provision concerning the use of load cells classified NH

OIML MAA Certificates and Evaluation Reports issued for class NH load cells (for humidity classification) on the basis of OIML R 60:2000 cannot be used to issue OIML MAA Certificates and Evaluation Reports for non-automatic weighing instruments on the basis of OIML R 76-1:1992, OIML R 76-2:1993, OIML R 76-1:2006 and OIML R 76-2:2007 without additional tests related the influence of humidity.

9. BIML receipt

Date recorded at the BIML: November 14, 2011