

## II

(Information)

INFORMATION FROM EUROPEAN UNION INSTITUTIONS, BODIES, OFFICES  
AND AGENCIES

## EUROPEAN COMMISSION

**Commission communication in the framework of the implementation of Directive 2004/22/EC of  
the European Parliament and of the Council on measuring instruments <sup>(1)</sup>***(Publication of the references to normative documents drawn up by OIML and the list of the parts thereof  
corresponding to the essential requirements (in conformity with Article 16.1 of the Directive))***(Text with EEA relevance)**

(2011/C 33/01)

**MI-005: Measuring systems for the continuous and dynamic measurement of quantities of liquids  
other than water**

in relation to:

— OIML R 117-1 — 2007

Directive 2004/22/EC Essential requirements of Annex I and Annex MI-005	OIML R 117-1 (2007)	Conclusion
Annex I		
1.1	T.c.3.3, T.e.4.3, 2.5	Covered
1.2	T.d.3, T.f.1, 4.1.1.1, 4.1.1.2	Covered except in case radiated electromagnetic amplitude modulated test has to be considered as an influence factor
1.3	T.c.3.3, 2.3.1, 3.1.1.1, 3.1.6.2, A.10.2, A.10.3, A.10.4, A.11.1.1	Covered
1.3.1	A.10.2, A.10.3, A.10.5, A.10.6, A.10.7	Covered
1.3.2		
(a) M1 (a) M2 (a) M3	A.10.4	Covered for vibrations Not relevant for shocks
(b)	A.10.4, A.10.8	Covered for vibrations Not relevant for shocks

<sup>(1)</sup> OJ L 135, 30.4.2004, p. 1.

Directive 2004/22/EC Essential requirements of Annex I and Annex MI-005	OIML R 117-1 (2007)	Conclusion
1.3.3		
(a) E1 (a) E2	A.11	Covered
(a) E3	A.12	Covered except for load dump
(b)	A.11.1.1, A.11.1.2, A.11.3 to A.11.11, A.12.3	Covered
1.3.4	A.11.2.1, A.11.2.2, A.12.2	Covered except for AC mains frequency variations and power frequency magnetic fields
1.4		
1.4.1	6.1.11.2, Annex A	Covered
1.4.2	A.10.7	Covered
2	2.12-2.18	Covered
3	T.e.4.4, 3.1.2.2, A.6.1	Covered
4	T.q.1.3, 2.3.2	Covered
5	T.e.2, T.e.3, 3.1.2.3, A.7, T.d.4, 4.1.3	Covered
6	4	Covered
7		
7.1	2.9 to 2.18, 2.20	Covered
7.2	2, 3, 5	Covered
7.3		Not relevant
7.4		Not relevant
7.5	2, 5, 6.1.11.1	Covered
7.6	3.1.4, 3.7.6, 4.3.4.3, 4.3.5, 5.4.3, 5.4.4, 5.5.3, 6.1.2.1, 6.1.3	Covered except for test procedures to be included in the operation manual
8		
8.1	2.2.3, 2.20.2.2, 2.20.2.3	Covered
8.2	2.20.1, 3.1.3	Covered
8.3(a)	6.1.3	Covered

Directive 2004/22/EC Essential requirements of Annex I and Annex MI-005	OIML R 117-1 (2007)	Conclusion
8.3(b)		Not covered
8.3(c)	2.20.2.1.5	Covered
8.4	2.20.1, 2.20.2	Covered
8.5		Not relevant
9		
9.1	2.19.1, 2.2.3	Covered
9.2		Not relevant
9.3	2.19.1, 6.1.3	Covered, except for information on its operation, installation, maintenance, repairs, permissible adjustments, correct operation and conditions for compatibility
9.4		Not relevant
9.5	3.2.1.2, 3.2.2.1, 3.3.3, 2.9.1	Covered
9.6		Not relevant
9.7	2.9.1	Covered
9.8	2.19.1	Covered
10		
10.1	T.m.2, T.m.3, T.a.6, T.q.1.2, 2.9.2, 3.2, 3.4, 3.5, 5.1.9, 5.2.7, 5.4.8, 5.6.4	Covered
10.2	2.9.1, 2.9.2, 2.9.3, 2.9.4, 2.9.5, 3.2.1.1, 3.2.1.3, 3.3	Covered
10.3	2.2, 2.2.2, 3.4.2, 3.4.3, 3.5.3, 3.5.4, 3.5.5	Covered
10.4	T.d.2, B.T.d.2, 5.1, 5.2, 5.5, 5.10, 2.2.3, 5.9	Covered
10.5		Not relevant
11		
11.1	T.a.6, T.s.4.2, T.s.5, 3.5, 5.10.1.7, 5.10.3.1, 5.11, 5.12	Covered
11.2	3.5, 5.10.2, 5.10.3, 5.11, 5.12	Covered

Directive 2004/22/EC Essential requirements of Annex I and Annex MI-005	OIML R 117-1 (2007)	Conclusion
12		Covered
Annex MI-005		
Scope	1.1, 2.9.1	Covered
Definitions	T.m.1, T.m.3, T.c.1, T.m.3, T.a.7, T.a.8, T.a.9, T.c.4, T.c.3.1, T.m.2, T.a.2, T.a.6, T.f.4, T.s.1, T.s.2, T.q.1.3, T.i.4, T.c.3.3, 2.3.1, 2.3.3.2	Covered, except for direct indication
1	2.3.1, 6.1.2.2, B.2.3.1	Covered
1.1	2.3.3.1, 2.3.3.3	Covered, except for ratios smaller than 4:1 for measuring systems
1.2	1.2, 2.3.1, 3.1.1.1	Covered
1.3	2.3.1	Covered
1.4	T.c.3.1, 2.19.4	Covered
2		
2.1	2.5.1	Covered provided the meter is also evaluated separately from the rest of the measuring instrument
2.2	2.5.2	Covered
2.3	2.5.3	Covered
2.4.1	2.5.3	Covered
2.4.2	2.5.3	Covered
2.5	2.5.1	Covered
2.6(a) and 2.6(b)	2.5.1, 2.7.1, 2.8, 2.7.2.2.1, 2.7.2.1.2	Covered except for cryogenic liquids
2.6(c)	2.7.2.1.2	Covered, except for quadratic addition of partial MPE's; not covered for cryogenic liquids
2.7	2.8	Covered
2.8		Applicable from 1 June 2011, not covered
3		
3.1	T.f.1, 4.3.1, 4.1.1.1, 4.1.1.2, 4.1.5	Covered

Directive 2004/22/EC Essential requirements of Annex I and Annex MI-005	OIML R 117-1 (2007)	Conclusion
3.2	2.5.4	Covered
4	T.e.3, A.7, 3.1.2.3	Covered
5		
5.1	2.9.4, 5.10.1.3	Covered
5.2	2.16, 2.17.2, 5.1.7, 5.5.5, 5.9.2	Covered
5.3	2.10.1	Covered
5.4		
5.4.1	3.2.4.5, 5.1.5, 5.2.7, 5.5.1, 2.16.1, 5.1.7, 5.5.5, 5.9.2, 5.1.9	Covered, except in case of a diversion readily apparent
5.4.2	3.2.3, 3.3.3, 5.10.1.7, 5.10.2.1.1, 5.10.2.1.3, 5.10.3.1.1, 5.11	Covered
5.4.3	4.1.2, 5.1.10, 5.5.1, 5.9.1	Covered
5.4.4	2.10, 5.1.2, 5.1.3, 5.1.4, 5.2.3, 5.2.8, 5.9.1	Covered
5.5		
5.5.1	3.2.4.2, 3.3.3	Covered
5.5.2	5.1.7, 5.5.5, 5.9.1	Covered
5.5.3	T.d.1.2, 3.3.7	Covered
6	4.2	Covered
7	2.4, 2.5.5	Covered
8	2.9.1	Covered

## Notes:

The column 'Conclusion' indicates the compliance between OIML-R 117-1 and the relevant requirement of Directive 2004/22/EC.

The indication 'Covered' means that:

- the requirement of OIML R 117-1 is identical to the one of Directive 2004/22/EC, or
- the requirement of OIML R 117-1 is more severe than the one of Directive 2004/22/EC, or
- all the requirement of OIML R 117-1 fulfils requirements in Directive 2004/22/EC (even when Directive 2004/22/EC allows other alternatives),
- in case the requirement is not fully covered, a short statement explains what is covered.

The indication 'Not covered' means that the requirement in Directive 2004/22/EC is either not compatible with the relevant OIML R 117-1 requirement or not included in OIML R 117-1.

The indication 'Not relevant' means that the requirement in Annex I to Directive 2004/22/EC is not relevant for measuring systems for the continuous and dynamic measurement of quantities of liquids other than water.

**MI-006: Automatic weighing instruments, Chapter II: Automatic catchweighing instruments**

in relation to:

— OIML R 51-1 — 2006

Essential requirements in MID (Annex I and MI-006)	OIML R 51-1 (2006)	Conclusion
Annex I		
1.1	T.4.3.1, T.4.3.7, 2.5, 2.6, 4.1.1	Covered
1.2	4.1.3, 4.1.6, 4.2.2	Covered
1.3	5.2.1	Covered
1.3.1	2.9.1.1, 2.9.1.2	Covered except that: Condensing/non-condensing and open/closed is not covered
1.3.2		Not relevant
1.3.3		
(a) E1 (a) E2	A.6.3.1, A.6.3.2, A.6.3.4, A.6.3.5.1, A.6.3.5.2, A.6.3.3	Covered
(a) E3	A.6.3.1, A.6.3.2, A.6.3.4, A.6.3.5.1, A.6.3.5.2, A.6.3.3, A.6.3.6	Covered except that R51 does not cover load dump requirement — ISO 7637 Pulse 5
(b)	A.6.3.1, A.6.3.2, A.6.3.4, A.6.3.5.1, A.6.3.5.2, A.6.3.3	Covered on the provision that the severity levels specified in OIML D 11 (2004) are used
1.3.4	2.9.2, A.6.2.4, A.6.2.5, A.6.2.6, A.6.2.7, 4.2.3, 6.4.3, A.5.2, 2.9.3, A.6.2.8, 2.9.1.3, A.6.2.2, 6.1.4 & A.5.8, 2.8.1, 6.4.4 & A.5.7	Covered except the mains frequency variation and power frequency magnetic field
1.4		
1.4.1	A.6.1.1, Annex A	Covered
1.4.2	A.6.2.3, 4.1.2	Covered except for the damp heat condensing test
2	A.7, 6.5.3, 2.10	Covered
3	T.3.6	Covered
4	T.3.5, 3.3.1, 2.5.1, 5.2.3	Covered
5	4.1.4, A.7, 2.10, 6.5.3, T.3.7	Covered
6	3.2.2, 4.1.3, 4.2.2	Covered
7		
7.1	3.2.1, 3.2.2, 3.2.4	Covered

Essential requirements in MID (Annex I and MI-006)	OIML R 51-1 (2006)	Conclusion
7.2	3.1	Covered
7.3		Not relevant
7.4		Not relevant
7.5	3.1	Covered
7.6	3.4.5, 2.11, 6.1.5	Covered except for the description of test procedure in the operation manual
8		
8.1	4.2.4	Covered
8.2	3.2.6	Covered
8.3	3.4.5, 3.2.3	Covered
8.4	3.2.6, 3.2.3, 3.4.4	Covered
8.5		Not relevant
9		
9.1	3.11.1, 3.11.2	Covered except for the indication of presence of additional device
9.2		Not relevant
9.3	3.11.1, 3.11.2, 3.11.3	Covered except for information (on its operation, installation, maintenance, repairs, permissible adjustments, correct operation), condensation, open or closed location
9.4		Not covered
9.5	3.3.2	Covered
9.6		Not relevant
9.7	2.7	Covered
9.8	3.11.4, 3.12	Covered
10		
10.1	3.3, 3.4	Covered
10.2	3.3.1, 2.4, 3.4.2, 3.3.2	Covered
10.3	3.4.3, 3.4.4	Covered

Essential requirements in MID (Annex I and MI-006)	OIML R 51-1 (2006)	Conclusion
10.4	3.4.3	Not covered directly, although some requirements are relevant
10.5		Not relevant
11		
11.1	3.4.4, 3.4.3	Covered when the measuring instrument is fitted with a data storage device or a printer
11.2	3.4.4, 3.4.3	Covered when the measuring instrument is fitted with a data storage device or a printer
12	2.11, 6.1.5, 6.1.8	Covered
Annex MI-006		

**CHAPTER I — Requirements common to all types of automatic weighing instruments**

1	5.2.1	Covered
1.1	T.3.1.1, T.3.1.2, T.3.1.3, 2.2.2, 2.2.1, 2.3.1, 2.3.3	Covered
1.2	2.9.2	Covered
1.3	2.9.1.1, 2.9.1.2, 2.9.3, 3.2.5	Covered
1.4	6.1.4, 2.9.3, 3.2.3	Covered
3		
3.1	2.9.3, 3.2.3, 3.2.5	Covered
3.2	3.2.7	Covered
3.3	3.3.1 (3.3, 3.2.4, 3.6.4, 3.6.5, 3.7.3, 3.9.4)	Covered
3.4	4.2.1	Covered
3.5	3.5, 3.6	Covered
3.6	3.3.3, 3.10.3	Covered

**CHAPTER II — Automatic catchweighers**

1		
1.1	2.1	Covered



Essential requirements in MID (Annex I and MI-006)	OIML R 51-1 (2006)	Conclusion
1.2	2.1.1, 2.1.2	Covered but note that XIV is used in the Directive 2004/22/EC which is equal to XIV used in the OIML R 51-1
2		
2.1	2.1	Covered
2.2	2.1.1	Covered
3	2.1, 2.1.2	Covered
4		
4.1	2.5.1.1, 2.5.1.2, A.3.9.2.2	Covered
4.2	2.5.1.1 Table 4	Covered
4.3	2.2.1 Table 1	Covered
4.4	2.2.1, 2.3	Covered except when the accuracy class is XIII or Y(a) with $0,1 \text{ g} \leq e \leq 2 \text{ g}$
5	2.2.2	Covered
6		
6.1	3.2.3	Covered
6.2	3.2.3	Covered
7.1		
7.1.1	2.6.1	Covered
7.1.2	2.6.2	Covered
7.2	T.4.3.9, 4.1.3	Covered
7.3	2.9.1.2	Covered

## Notes:

The column 'Conclusion' indicates the compliance between OIML R 51-1 and the relevant requirement in Directive 2004/22/EC.

The indication 'Covered' means that:

- the requirement of OIML R 51-1 is identical to the one of Directive 2004/22/EC, or
- the requirement of OIML R 51-1 is more severe than the one of Directive 2004/22/EC, or
- all of the requirement of OIML R 51-1 fulfils requirements in Directive 2004/22/EC (even when Directive 2004/22/EC allows other alternatives),
- in case the requirement is not fully covered, a short statement explains what is covered.

The indication 'Not covered' means that the requirement in Directive 2004/22/EC is either not compatible with the relevant OIML R 51-1 requirement or not included in OIML R 51-1.

The indication 'Not relevant' means that the requirement in Annex I to Directive 2004/22/EC is not relevant for automatic catchweighing instruments.

**MI-010: Exhaust gas analyser**

in relation to:

— OIML R 99-1 &amp; 2 — 2008

Directive 2004/22/EC Essential requirements of Annex I and Annex MI-010	OIML R 99-1 & 2 (2008)	Conclusion
1.1	2.4, 3.17 to 3.19, 3.25, 5.5.2, 9.4.1, A.5 to A.9	Covered
1.2	3.20, 3.21, 3.27, 5.7, 9.5, A.11 to A.18	Covered for disturbances. Permanent continuous electromagnetic field not relevant
1.3	5.6.2	Covered
1.3.1	5.6.2, 9.4.1	Covered
1.3.2(a) M1 and M2	5.7(a) and (b), 9.5(a), A.11	Covered
1.3.2(a) M3		Not relevant
1.3.2(b) Vibration and shocks	5.7(a) and (b), 9.5(a), A.11	Covered
1.3.3(a) E1 and E2	5.7(c) to (e), 5.7(g) to (k), 9.5(b) and (c), 9.5(e) to (h), A.12, A.13, and A.15 to A.18	Covered except for power frequency magnetic fields and voltage transient on supply lines and/or signal lines
1.3.3(a) E3	5.7(c) to (k), 9.5(b) to (h), A.12 to A.18	Covered except for power frequency magnetic fields and voltage transient on supply lines and/or signal lines and for load dump transient
1.3.3(b)	5.7(c) to (k), 9.5(b) to (h), A.12 to A.18	Covered
1.3.4	5.6.2(c) to (g), 5.6.3, 5.7(j), 9.4.1(d) and (e), 9.4.2, A.8 to A.10, A.18	Covered
1.4.1	8.1.2, 8.1.3, Annex A	Covered
1.4.2	9.4.1(c), A.7	Covered for damp heat steady state. Damp heat cyclic not relevant
2		Not relevant
3	5.13, 9.3, A.4	Covered
4	5.2, 5.3, 5.6.3, 5.8	Covered
5	5.12, 6, 9.2	Covered
6	6.3	Covered
7.1	6.3.9, 6.3.10	Covered
7.2	5.1, 5.9, 5.10, 5.11, 6.2, 6.3	Covered

Directive 2004/22/EC Essential requirements of Annex I and Annex MI-010	OIML R 99-1 & 2 (2008)	Conclusion
7.3		Not relevant
7.4		Not relevant
7.5	6.1	Covered
7.6	6.1.4.2, 6.2.1, 6.3.2, 6.3.4, 6.3.5, 6.3.6, 6.3.7, 6.3.9, 6.3.12, 6.3.10	Covered except for the description of test procedure in the operational manual
8.1	6.1.9 6.3.11	Covered
8.2	6.3.9	Covered
8.3	6.3.10 7.1.1 7.1.3	Covered except for the evidence of an intervention
8.4	6.3.10	Covered
8.5		Not relevant
9.1	7.1	Covered except for the information related to addi- tional devices
9.2		Not relevant
9.3	7.2	Covered
9.4		Not relevant
9.5	5.1, 5.3	Covered
9.6		Not relevant
9.7	5.1	Covered
9.8	7.1.1	Covered
10.1	4.1, 4.3	Covered
10.2	5.1, 5.3	Covered
10.3	5.4	Covered
10.4		Not relevant
10.5		Not relevant
11.1	5.4	Covered
11.2	5.4	Covered

Directive 2004/22/EC Essential requirements of Annex I and Annex MI-010	OIML R 99-1 & 2 (2008)	Conclusion
12		Covered
Introduction of MI-010	1	Covered
Definitions	1, 5.1, 3.33	Covered
1	5.2, 5.11	Covered
2.1	5.6.2, 5.7(a) and (b)	Covered
2.2	5.6.2(d) to (g)	Covered for the values fixed in R 99
2.3	5.6.2(c)	Covered
3.1	5.5.1, 5.5.2	Covered
3.2	5.11, Annex D	Covered
4	3.21	Covered
5	9.5	Covered
6	5.3	Covered
7	5.13	Covered
8	5.8	Covered
9	5.6.3	Covered
10	6.2.1	Covered
11	6.3.6	Covered
12	6.3.2 6.3.3	Covered
13	6.3.4	Covered
14	5.11, Annex D	Covered provided that coefficients are available for the relevant fuels

*Note:*

The column 'Conclusion' gives the conclusion on the compliance between OIML R 99-1 & 2 and the relevant requirement in Directive 2004/22/EC.

The indication 'Covered' means that:

- the requirement of OIML R 99-1 & 2 is identical to the one of Directive 2004/22/EC, or
- the requirement of OIML R 99-1 & 2 is more severe than the one of Directive 2004/22/EC, or
- all the requirements of OIML R 99-1 & 2 fulfil the requirements in Directive 2004/22/EC (even when Directive 2004/22/EC allows other alternatives),
- in case the requirement is not fully covered, a short statement explains what is covered.

The indication 'Not covered' means that the requirement in Directive 2004/22/EC is either not compatible with the relevant OIML R 99-1 & 2 requirement or not included in OIML R 99-1 & 2.

The indication 'Not relevant' means that the requirement in Annex I to Directive 2004/22/EC is not relevant for exhaust gas analyser.