INTERNATIONAL
RECOMMENDATION

OIML R 136-2

Edition 2006 (E)

Instruments for measuring the areas of leathers

Part 2: Test Report Format

Instruments pour la mesure de la surface des cuirs

Partie 2 : Format du rapport d'essai

OIML

ORGANISATION INTERNATIONALE
DE MÉTROLOGIE LÉGALE

INTERNATIONAL ORGANIZATION
OF LEGAL METROLOGY

Contents

Foreword

The International Organization of Legal Metrology (OIML) is a worldwide, intergovernmental organization whose primary aim is to harmonize the regulations and metrological controls applied by the national metrological services, or related organizations, of its Member States.

The main categories of OIML publications are:

- **International Recommendations (OIML R),** which are model regulations that establish the metrological characteristics required of certain measuring instruments and which specify methods and equipment for checking their conformity. OIML Member States shall implement these Recommendations to the greatest possible extent;

- **International Documents (OIML D),** which are informative in nature and which are intended to harmonize and improve work in the field of legal metrology;

- **International Guides (OIML G),** which are also informative in nature and which are intended to give guidelines for the application of certain requirements to legal metrology; and

- **International Basic Publications (OIML B),** which define the operating rules of the various OIML structures and systems.

OIML Draft Recommendations, Documents and Guides are developed by Technical Committees or Subcommittees which comprise representatives from the Member States. Certain international and regional institutions also participate on a consultation basis. Cooperative agreements have been established between the OIML and certain institutions, such as ISO and the IEC, with the objective of avoiding contradictory requirements. Consequently, manufacturers and users of measuring instruments, test laboratories, etc. may simultaneously apply OIML publications and those of other institutions.

International Recommendations, Documents, Guides and Basic Publications are published in English (E) and translated into French (F) and are subject to periodic revision.

Additionally, the OIML publishes or participates in the publication of **Vocabularies (OIML V)** and periodically commissions legal metrology experts to write **Expert Reports (OIML E)**. Expert Reports are intended to provide information and advice, and are written solely from the viewpoint of their author, without the involvement of a Technical Committee or Subcommittee, nor that of the CIML. Thus, they do not necessarily represent the views of the OIML.

This publication - reference OIML R 136-2, edition 2006 (E) - was developed by the OIML Technical Subcommittee TC 7/SC 3 *Measurement of areas*. It was approved for final publication by the International Committee of Legal Metrology in 2006.

OIML Publications may be downloaded from the OIML web site in the form of PDF files. Additional information on OIML Publications may be obtained from the Organization's headquarters:

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Introduction

This "Test report format" aims at presenting, in a standardized format, the results of the various tests and examinations to which a type of an instrument for measuring the area of leather shall be submitted with a view to its approval.

The Test report format consists of two parts, a "Checklist" and the "Test report" itself.

The Checklist is a summary of the examinations carried out on the instrument. It includes the conclusions of the results of the test performed, experimental or visual checks based on the requirements of Part 1. The words or condensed sentences aim at reminding the examiner of the requirements in R 136-1 without reproducing them.

The test report is a record of the results of the tests carried out on the instrument. The "test report" forms have been produced based on the tests detailed in R 136-1.

All metrology services or laboratories evaluating types of instruments for measuring the area of leather according to R 136-1 or to national or regional regulations based on this OIML Recommendation are strongly advised to use this Test report format, directly or after translation into a language other than English or French. Its direct use in English or in French, or in both languages, is even more strongly recommended whenever test results may be transmitted by the country performing these tests to the approving authorities of another country, under bi- or multi-lateral cooperation agreements. In the framework of the *OIML Certificate System for Measuring Instruments*, use of this Test report format is mandatory.

The "information concerning the test equipment used for type evaluation" shall cover all test equipment which has been used in determining the test results given in a report. The information may be a short list containing only essential data (name, type, reference number for purposes of traceability). For example:

- Verification standards (accuracy, or accuracy class, and no.),

- Simulator for testing of modules (name, type, traceability and no.),

- Climatic test and static temperature chamber (name, type and no.),

- Electrical tests, bursts (name of the instrument, type and no.),

- Description of the procedure of field calibration for the test of immunity to radiated electromagnetic fields.

Note concerning the numbering of the following pages:

In addition to a sequential numbering: "R 136-2 page …" at the bottom of the pages of this publication, a special place is left at the top of each page (starting with the following page) for numbering the pages of reports established following this model; in particular, some tests (e.g. metrological performance tests) shall be repeated several times, each test being reported individually on a separate page following the relevant format; in the same way, a multiple range instrument shall be tested separately for each range and a separate form (including the general information form) shall be filled out for each range. For a given report, it is advisable to complete the sequential numbering of each page by the indication of the total number of pages of the report.

Instruments for measuring the area of leathers
Type evaluation report

EXPLANATORY NOTES

Symbol	Meaning
I	Indication
A	Conventional true value of the area measurement (quality certified template area)
E	$I - A$ = Error (of indication)
d	Scale interval
R	Repeatability error
A_{min}	Minimum area (T.3.2)
A_{max}	Maximum area (T.3.3)
A_{total}	Total area of two or more leather pieces (T.3.4)
$\overline{\chi}_e$	$\overline{\chi} - A$ = mean area error (T.4.8)
$\overline{\chi}$	$\dfrac{\sum\limits_{i=1}^{n} I_i}{n}$ = Mean of indicated readings
p_i	Fraction of the MPE applicable to a module of the instrument which is examined separately
MPD	Maximum permissible deviation (T.4.4)
MPE	Maximum permissible error (T.4.3)
EUT	Equipment under test
U_{nom}	Nominal voltage value marked on the instrument
U_{max}	Highest value of a voltage range marked on the instrument
U_{min}	Lowest value of a voltage range marked on the instrument
e.m.f	Electromagnetic force
I/O	Input / Output ports
RF	Radio frequency
V/m	Volts per metre
kV	kilovolt
DC	Direct current
AC	Alternating current
MHz	Megahertz

The name(s) or symbol(s) of the unit(s) used to express test results shall be specified in each form.

For each test, the "SUMMARY OF TYPE EVALUATION" and the "CHECKLIST" shall be completed according to this example:

	P	F
P = Passed F = Failed		
when the instrument has passed the test:	X	
when the instrument has failed the test:		X
when the test is not applicable:	—	—

The white spaces in boxes in the headings of the report should always be filled in according to the following example:

	At start	At end	
Temp.:	20.5	21.1	°C
Rel. h.:			%
Date:	2002-01-29	2002-01-30	yyyy-mm-dd
Time:	16:00:05	16:30:25	hh:mm:ss

"Temp." = temperature; "Rel. h." = relative humidity; and "Date" in the test reports refers to the date on which the test was performed.

In the disturbance tests, faults greater than d are acceptable provided that they are detected and acted upon, or that they result from circumstances such that these faults shall not be considered as significant; an appropriate explanation shall be given in the column "Yes (remarks)".

Section numbers in brackets refer to the corresponding clauses of R 136-1.

GENERAL INFORMATION CONCERNING THE TYPE

Application no.:   .…………………..……………...….   Manufacturer: ...……………………..……………...….

Type designation: .…………………..……………...….   Applicant: ...……………………..……………...….

Instrument category: .…………………..……………...….

Tests on: ☐ Complete instrument   ☐ Module [1]

Accuracy class: ☐ X(x)

A_{min} = ☐ A_{max} = ☐ A_{total} = ☐ d = ☐

U_{nom} [2] = ☐ V U_{min} = ☐ V U_{max} = ☐ V f = ☐ Hz   Battery, U = ☐ V

Zero-setting device:

☐ Non-automatic

☐ Semi-automatic

☐ Automatic zero-setting

Temperature range: ☐ °C

Printer: ☐ Built in   ☐ Connected   ☐ Not present but connectable   ☐ No connection

Instrument submitted: ....

Identification no.:   ....

Software version: ....

Connected equipment: ....

....

Interfaces (number, nature):   ....

....

....

Evaluation period: ....

Date of report: ....

Observer: ....

---

[1] The test equipment (simulator or part of a complete instrument) connected to the module shall be defined in the test form(s) used.
[2] Voltage U_{nom} is the nominal voltage marked on the instrument.

GENERAL INFORMATION CONCERNING THE TYPE (continued)

Use this space to indicate additional remarks and / or information: other connected equipment, interfaces and load cells, choice of the manufacturer regarding protection against disturbances, etc.

IDENTIFICATION OF THE INSTRUMENT

Application no.:   Type designation:

....

Identification no.:   Manufacturer:

....

Software version:

....

Report date:

....

Manufacturing documentation:

(Record as necessary to identify the equipment under test)

System or module name	Drawing number or software reference	Issue level	Serial no.
....	....	....	....
....	....	....	....
....	....	....	....
....	....	....	....
....	....	....	....
....	....	....	....
....	....	....	....

Simulator documentation:

System or module name	Drawing number or software reference	Issue level	Serial no.
....	....	....	....
....	....	....	....
....	....	....	....
....	....	....	....
....	....	....	....
....	....	....	....
....	....	....	....

Simulator function (summary):

(Simulator description and drawings, block diagram, etc. should be attached to the report if available.)

IDENTIFICATION OF THE INSTRUMENT (continued)

Description or other information pertaining to identification of the instrument:
(*attach photograph here if available*)

INFORMATION CONCERNING THE TEST EQUIPMENT USED FOR TYPE EVALUATION

TEST EQUIPMENT

Application no.:   ....   Type designation: ....

Report date: ....   Manufacturer: ....

List all test equipment used in this report (including descriptions of the reference vehicles used for testing)

Equipment name	Manufacturer	Type no.	Serial no.	Used for (test references)
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....
....	....	....	....	....

INFORMATION CONCERNING THE TEST EQUIPMENT USED FOR TYPE EVALUATION

TEST EQUIPMENT

CONFIGURATION FOR TEST

Application no.: .... Type designation: ....

Report date: .... Manufacturer: ....

Use this space for additional information relating to equipment configuration, interfaces, data rates, load cells, EMC protection options, etc., for the instrument and / or simulator.

SUMMARY OF TYPE EVALUATION

Application no.: ....

Type designation: ....

Report date: ....

		TESTS	**Report page**	**Passed**	**Failed**	**Remarks**
1		Zero-setting devices				
2		Warm-up time test				
3		**Influence factors**				
3.1		Static temperature test:				
3.1.1		Reference temperature 20 °C				
3.1.2		High temperature …... °C				
3.1.3		Low temperature …... °C				
4.1.4		Reference temperature 20 °C				
3.2		Damp heat, steady state test:				
3.2.1		Reference temperature of 20 °C and 50 % relative humidity				
3.2.2		High temperature and 85 % relative humidity				
3.2.3		Reference temperature of 20 °C and 50 % relative humidity				
3.3		Voltage variations test:				
3.3.1		AC mains voltage variation				
3.3.2		DC mains voltage variation				
3.3.3		Battery power (DC) voltage variation				
4		**Disturbances**				
4.1		Short time power reductions test				
4.2		Electrical bursts test:				
4.2.1		Power supply lines				
4.2.2		Input/output control circuits and communication lines				
4.3		Electrostatic discharges test:				
4.3.1		Direct application				
4.3.2		Indirect application (contact discharges only)				
4.4		Electromagnetic susceptibility test:				
4.4.1		Radiated				
4.4.2		Conducted				
4.5		Ambient light test:				
4.5.1		200 lx to 500 lx (reference)				
4.5.2		100 lx				
4.5.3		1000 lx to 1500 lx				
4.5.4		…... lx				
5		Span stability test				
6		Examination of the construction				
7		Checklist				

Note: "Sample test report" sheets for including area indication for each measurement are included at the end of this document.

SUMMARY OF TYPE EVALUATION (continued)

Use this page to detail remarks from the summary of the type evaluation.

SUMMARY OF TYPE EVALUATION (continued)

1   ZERO-SETTING DEVICES (3.4, A.5)

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.: ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test: (smaller than d) ....

1.1   Modes of zero-setting (3.4.1, A.5.1)

Modes of zero-setting	Present		Mode tested		Accuracy tested	
	Yes	No	Yes	No	Yes	No
Non-automatic						
Semi-automatic						
Automatic zero-setting at start of automatic operation						
Automatic zero-setting as part of every measurement cycle						
The same process is used for each mode of zero-setting						

1.2   Accuracy of zero-setting (3.4.2, A.5.2)

1.2.1   Digital indicator

Zero-setting mode:	Indication, I	MPD

1.2.2   Analog indicator

Zero-setting mode:	Indication, I	MPD

☐ Passed   ☐ Failed

Remarks:

2   WARM-UP TIME TEST (4.3.4)

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Duration of disconnection
before test: .... hours

Automatic zero-setting device is:

☐ Non-existent   ☐ Not in operation   ☐ Out of working range   ☐ In operation [3]

Time *	Indication or transmission of results		Automatic operation inhibited		Comments
	Yes	No	Yes	No	

* Counted from the moment an indication has first appeared.

☐ Passed   ☐ Failed

Remarks:

---

[3] In operation only if zero operates as part of every automatic weighing cycle

3   INFLUENCE FACTORS (2.3 and 5.2.3.2)

3.1   Static temperatures test (2.3.1, A.6.2.1)

3.1.1   Reference temperature of 20 °C

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Automatic zero-setting device is:

☐ Non-existent   ☐ Not in operation   ☐ Out of working range   ☐ In operation [4]

Conventional true value of the template area, A: [   ]

$\overline{\chi}$ = Mean of indicated readings

$\overline{\chi}_e$ = Mean area error

I = Indication
E = Error

Measurement leather area	Close to A_{min}	Close to A_{max}		

Test number	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	MPE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
$\overline{\chi}$									
$\overline{\chi}_e$									
MPD									

☐ Passed   ☐ Failed

Remarks:

---

[4] In operation only if zero operates as part of every automatic weighing cycle

3.1.2   Static temperature test (Specified high = ... °C)

	At start	At end	
Application no.:	....	Temp:	°C

Application no.:   ....

Type designation: ....

Observer: ....

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Automatic zero-setting device is:

☐ Non-existent   ☐ Not in operation   ☐ Out of working range   ☐ In operation [5]

Conventional true value of the template area, A:

$\overline{\chi}$ = Mean of indicated readings

$\overline{\chi}_e$ = Mean area error

I = Indication
E = Error

Measurement leather area	Close to A_{min}	Close to A_{max}		

Test number	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	MPE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
$\overline{\chi}$									
$\overline{\chi}_e$									
MPD									

☐ Passed   ☐ Failed

Remarks:

---

[5] In operation only if zero operates as part of every automatic weighing cycle

3.1.3   Static temperature test (specified low = …………………………°C)

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Automatic zero-setting device is:

☐ Non-existent   ☐ Not in operation   ☐ Out of working range   ☐ In operation [6]

Conventional true value of the template area, A: ☐

$\overline{\chi}$ = Mean of indicated readings

$\overline{\chi}_e$ = Mean area error

I = Indication
E = Error

Measurement leather area	Close to A_{min}	Close to A_{max}		

Test number	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	MPE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
$\overline{\chi}$									
$\overline{\chi}_e$									
MPD									

☐ Passed   ☐ Failed

Remarks:

[6] In operation only if zero operates as part of every automatic weighing cycle

3.1.4   Static temperature test (reference temperature of 20 °C)

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Automatic zero-setting device is:

☐ Non-existent   ☐ Not in operation   ☐ Out of working range   ☐ In operation [7]

Conventional true value of the template area, A:

$\overline{\chi}$ = Mean of indicated readings

$\overline{\chi_e}$ = Mean area error

I = Indication
E = Error

Measurement leather area	Close to A_{min}		Close to A_{max}						

Test number	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	MPE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
$\overline{\chi}$									
$\overline{\chi_e}$									
MPD									

☐ Passed   ☐ Failed

Remarks:

---

[7] In operation only if zero operates as part of every automatic weighing cycle

3.2   Damp heat, steady state test (4.3.3, A.6.2.2)

3.2.1   Reference temperature of 20 °C and 50 % relative humidity

	At start	After 3 h	At end	
Temp:				°C
Rel. h.:				%
Date:				yyyy-mm-dd
Time:				hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Automatic zero-setting device is:

☐ Non-existent   ☐ Not in operation   ☐ Out of working range   ☐ In operation [8]

Conventional true value of the template area, A: [   ]

$\overline{\chi}$ = Mean of indicated readings

$\overline{\chi_e}$ = Mean area error

I = Indication
E = Error

Measurement leather area	Close to A_{min}	Close to A_{max}		

Test number	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	MPE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
$\overline{\chi}$									
$\overline{\chi_e}$									
MPD									

☐ Passed   ☐ Failed

Remarks:

---

[8] In operation only if zero operates as part of every automatic weighing cycle

3.2.2   Upper limit (temperature =…………………………. °C) and 85 % relative humidity

	At start	After 3 h	At end	
Temp:				°C
Rel. h.:				%
Date:				yyyy-mm-dd
Time:				hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Automatic zero-setting device is:

☐ Non-existent   ☐ Not in operation   ☐ Out of working range   ☐ In operation [9]

Conventional true value of the template area, A: ☐

$\overline{\chi}$ = Mean of indicated readings

$\overline{\chi}_e$ = Mean area error

I = Indication

E = Error

Measurement leather area	Close to A_{min}	Close to A_{max}		

Test number	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	MPE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
$\overline{\chi}$									
$\overline{\chi}_e$									
MPD									

☐ Passed   ☐ Failed

Remarks:

---

[9] In operation only if zero operates as part of every automatic weighing cycle

3.2.3   Reference temperature of 20 °C and 50 % relative humidity

	At start	After 3 h	At end	
Temp:				°C
Rel. h.:				%
Date:				yyyy-mm-dd
Time:				hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Automatic zero-setting device is:

☐ Non-existent   ☐ Not in operation   ☐ Out of working range   ☐ In operation [10]

Conventional true value of the template area, A: _____

$\overline{\chi}$ = Mean of indicated readings

$\overline{\chi_e}$ = Mean area error

I = Indication
E = Error

Measurement leather area	Close to A_{min}	Close to A_{max}		

Test number	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	MPE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
$\overline{\chi}$									
$\overline{\chi_e}$									
MPD									

☐ Passed   ☐ Failed

Remarks:

---

[10] In operation only if zero operates as part of every automatic weighing cycle

3.3   Voltage variation test

3.3.1   AC mains voltage variation (2.3.2, A.6.2.3)

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Automatic zero-setting device is:

☐ Non-existent   ☐ Not in operation   ☐ Out of working range   ☐ In operation [11]

Marked nominal voltage, U_{nom}, or voltage range   [   ] V

Conventional true value of the template area, A: [   ]

$\overline{\chi}$ = Mean of indicated readings

$\overline{\chi}_e$ = Mean area error

I = Indication
E = Error

Voltage conditions	Nominal voltage		$U_{max} + 10\%$		$U_{min} - 15\%$		Nominal voltage		
Test number	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	MPE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
$\overline{\chi}$									
$\overline{\chi}_e$									
MPD									

☐ Passed   ☐ Failed

Remarks:

---

[11] In operation only if zero operates as part of every automatic weighing cycle

3.3.2   DC mains voltage variation (2.3.2, 4.3.7, A.6.2.4)

			At start	At end	
Application no.:	....	Temp:			°C
Type designation:	....	Rel. h.:			%
Observer:	....	Date:			yyyy-mm-dd
		Time:			hh:mm:ss

Scale interval, *d*:   ....

Resolution during test:
(smaller than *d*)   ....

Automatic zero-setting device is:

☐ Non-existent   ☐ Not in operation   ☐ Out of working range   ☐ In operation [12]

Marked nominal voltage, U_{nom}, or voltage range   [   ] V

Conventional true value of the template area, *A*:   [   ]

$\overline{\chi}$ = Mean of indicated readings

$\overline{\chi}_e$ = Mean area error

I   = Indication
E   = Error

Voltage conditions	Nominal voltage		$U_{max} + 10\ \%$		$U_{min} - 15\ \%$		Nominal voltage		
Test number	*I*	$E = I - A$	*I*	$E = I - A$	*I*	$E = I - A$	*I*	$E = I - A$	MPE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
$\overline{\chi}$									
$\overline{\chi}_e$									
MPD									

☐ Passed   ☐ Failed

Remarks:

---

[12] In operation only if zero operates as part of every automatic weighing cycle

3.3.3 Battery power (DC) voltage variation (2.3.2, 4.3.7, A.6.2.4)

	At start	At end	

Application no.: .... Temp: [ ] [ ] °C

Type designation: .... Rel. h.: [ ] [ ] %

Observer: .... Date: [ ] [ ] yyyy-mm-dd

Time: [ ] [ ] hh:mm:ss

Scale interval, d: ....

Resolution during test:
(smaller than d) ....

Automatic zero-setting device is:

[ ] Non-existent   [ ] Not in operation   [ ] Out of working range   [ ] In operation [13]

Marked nominal voltage, U_{nom}, or voltage range   [ ] V

Conventional true value of the template area, A: [ ]

$\overline{\chi}$ = Mean of indicated readings

$\overline{\chi}_e$ = Mean area error

I = Indication

E = Error

Voltage conditions	Nominal voltage		$U_{max} + 10\%$		$U_{min} - 15\%$		Nominal voltage		
Test number	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	I	$E = I - A$	MPE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
$\overline{\chi}$									
$\overline{\chi}_e$									
MPD									

[ ] Passed   [ ] Failed

Remarks:

---

[13] In operation only if zero operates as part of every automatic weighing cycle

4   DISTURBANCES (4.1.2, A.6.3)

4.1   Short time power reduction test (A.6.3.1)

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Mains power supply voltage: U_{nom} [   ] V U_{min} [   ] V U_{max} [   ] V

Power supply voltage for the test: U_{Test} [   ] V $= U_{nom}$ or the average value of U_{min} and U_{max}

Measurement (leather area)	Disturbance				Result		
	Amplitude (% of U_{nom})	Duration (cycles)	Number of disturbances	Repetition interval (s)	Indication I	Significant fault (> 1 d)	
						No	Yes (remarks)
	without disturbance						
	0	0.5	10				
	50	1	10				

[   ] Passed   [   ] Failed

Remarks:

4.2   **Electrical bursts test (A.6.3.2)**

4.2.1   **Mains power supply lines**

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.: ....

Type designation: ....

Observer: ....

Scale interval, *d*: ....

Resolution during test:
(smaller than *d*) ....

Power supply lines: test voltage 1 kV, duration of the test 1 minute at each polarity

Measurement (leather area)	Connection			Polarity	Result		
	L ↓ ground	N ↓ ground	PE ↓ ground		Indication *I*	Significant fault (> 1 *d*)	
						No	Yes (remarks)
	without disturbance						
	X	X	X	pos			
				neg			
	without disturbance						
	X	X	X	pos			
				neg			
	without disturbance						
	X	X	X	pos			
				neg			

L = phase, N = neutral, PE = protective earth

☐ Passed   ☐ Failed

Note: If significant faults are detected and acted upon, or if the EUT fails, the test point at which this occurs shall be recorded.

Remarks:

4.2   Electrical bursts test (continued)

4.2.2   I/O circuits and communication lines

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

I/O signals, data and control lines: test voltage 0.5 kV, duration of the test 1 minute at each polarity

Measurement (leather area)	Cable/Interface	Polarity	Indication I	Significant fault (> 1 d)	
				No	Yes (remarks)
without disturbance					
		pos			
		neg			
without disturbance					
		pos			
		neg			
without disturbance					
		pos			
		neg			
without disturbance					
		pos			
		neg			
without disturbance					
		pos			
		neg			
without disturbance					
		pos			
		neg			

Explain or make a sketch indicating where the clamp is located on the cable; if necessary, add additional page.

☐ Passed   ☐ Failed

Note: If significant faults are detected and acted upon, or if the EUT fails, the test point at which this occurs shall be recorded.

Remarks:

4.3   Electrostatic discharge test (A.6.3.3)

4.3.1   Direct application

	At start	At end	
Application no.:	Temp:		°C
Type designation:	Rel. h.:		%
Observer:	Date:		yyyy-mm-dd
	Time:		hh:mm:ss

Scale interval, *d*:   ....

Resolution during test:
(smaller than *d*)   ....

☐ Contact discharges   ☐ Paint penetration

☐ Air discharges   Polarity [14]: ☐ pos   ☐ neg

Measurement (leather area)	Discharges			Result		
	Test voltage (kV)	Number of discharges ≥ 10	Repetition interval (s)	Indication *I*	Significant fault (> 1 *d*)	
					No	Yes (remarks, test points)
	without disturbance					
	2					
	4					
	6					
	8 (air discharges)					

☐ Passed   ☐ Failed

Note: If the EUT fails, the test point at which this occurs shall be recorded.

Remarks:

---

[14] IEC 61000-4-2 specifies that the test shall be conducted with the most sensitive polarity.

4.3   Electrostatic discharge test (continued)

4.3.2   Indirect application (contact discharges only)

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Polarity [15]:   ☐ pos   ☐ neg

Horizontal coupling plane

Measurement (leather area)	Discharges			Result		
	Test voltage (kV)	Number of discharges ≥ 10	Repetition interval (s)	Indication I	Significant fault (> 1 d)	
					No	Yes (remarks)
	without disturbance					
	2					
	4					
	6					

Vertical coupling plane

Measurement (leather area)	Discharges			Result		
	Test voltage (kV)	Number of discharges ≥ 10	Repetition interval (s)	Indication I	Significant fault (> 1 d)	
					No	Yes (remarks)
	without disturbance					
	2					
	4					
	6					

☐ Passed   ☐ Failed

Note: If the EUT fails, the test point at which this occurs shall be recorded.

Remarks:

---

[15] IEC 61000-4-2 specifies that the test shall be conducted with the most sensitive polarity

4.3   Electrostatic discharge test (continued)

Specification of test points of EUT (direct application), e.g. by photos or sketches

a)   Direct application

Contact discharges:

Air discharges:

b)   Indirect application

4.3   Electrostatic discharge test (continued)

4.4   Electromagnetic susceptibility test (A.6.3.4)

4.4.1   Radiated (A.6.3.4.1)

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Rate of sweep: _____

Disturbances				Result		
Antenna	Frequency range (MHz)	Polarization	Facing EUT	Indication I	Significant fault (> 1 d)	
					No	Yes (remarks)
without disturbance						
		Vertical	Front			
			Right			
			Left			
			Rear			
		Horizontal	Front			
			Right			
			Left			
			Rear			
		Vertical	Front			
			Right			
			Left			
			Rear			
		Horizontal	Front			
			Right			
			Left			
			Rear			

Frequency range::   80 MHz to 2 GHz
Amplitude: 3 V/m (residential, commercial or light industrial environment), or 10 V/m (industrial environment)
Modulation: 80 % AM, 1 kHz sine wave

☐ Passed   ☐ Failed

Note: If the EUT fails, the frequency and field strength at which this occurs must be recorded.

Remarks:

4.4.2   Conducted (A.6.3.4.2)

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, *d*:   ....

Resolution during test:
(smaller than *d*)   ....

Rate of sweep:

Frequency Range (MHz)	Cable/Interface	Level (e.m.f)	Result		
			Indication *I*	Significant fault (> 1 *d*)	
				No	Yes (remarks)
	without disturbance				
	without disturbance				
	without disturbance				
	without disturbance				
	without disturbance				
	without disturbance				

Frequency range: 0.15 to 80 MHz

RF amplitude (e.m.f):   3 V (residential, commercial or light industrial environment), or 10 V (industrial environment)

Modulation: 80 % AM, 1 kHz sine wave

☐ Passed   ☐ Failed

Note: If the EUT fails, the frequency and field strength at which this occurs must be recorded.

Remarks:

4.4   Electromagnetic susceptibility test (continued)

Include a description of the setup of the EUT, e.g. by photos or sketches.

Radiated:

Conducted:

4.5   Ambient light test (2.5, A.6.3.5)

4.5.1   Reference illumination: 200 lx to 500 lx

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Measurement (leather area):

Indication I (without disturbance)	Reference illumination	Light intensity levels	Indication ΔI	Significant fault (> 1 d)	
				No	Yes (remarks)
	200 lx to 500 lx				

☐ Passed   ☐ Failed

Remarks:

4.5.2   Illumination: 100 lx

	At start	At end	

Application no.:   ....   Temp: °C

Type designation: ....   Rel. h.:   %

Observer: ....   Date: yyyy-mm-dd

                                                                                            Time: hh:mm:ss

Scale interval, *d*:   ....

Resolution during test:
(smaller than *d*)   ....

Measurement (leather area):

Indication *I* (without disturbance)	Illumination	Light intensity levels	Indication Δ*I*	Significant fault (> 1 *d*)	
				No	Yes (remarks)
	100 lx				

☐ Passed   ☐ Failed

Remarks:

4.5.3   Illumination: 1000 lx to 1500 lx

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, *d*:   ....

Resolution during test:
(smaller than *d*)   ....

Measurement (leather area):

Indication *I* (without disturbance)	Illumination	Light intensity levels	Indication Δ*I*	Significant fault (> 1 *d*)	
				No	Yes (remarks)
	1000 lx to 1500 lx				

☐ Passed   ☐ Failed

Remarks:

4.5.4   Reference illumination lx

	At start	At end	
Application no.:	....	Temp:			°C
Type designation:	....	Rel. h.:			%
Observer:	....	Date:			yyyy-mm-dd
		Time:			hh:mm:ss

Scale interval, d:　　...

Resolution during test:
(smaller than d)　　...

Measurement (leather area):

Indication I (without disturbance)	Illumination	Light intensity levels	Indication ΔI	Significant fault (> 1 d)	
				No	Yes (remarks)
	Reference lx				

☐ Passed　　　☐ Failed

Remarks:

5   SPAN STABILITY TEST (4.4.3, A.7)

Application no.:

....

Type designation:

....

Scale interval, d:

....

Resolution during test: (smaller than d)

....

Automatic zero-setting and zero-tracking device is:

[ ]   Non-existent   [ ]   Not in operation

Measurement (template area)   [   ]

Measurement no. 1: Initial measurement

	At start	At end	

Application no.:   ....   Temp: [   ] [   ] °C

Type designation: ....   Rel. h.: [   ] [   ] %

Observer: ....   Date: [   ] [   ] yyyy-mm-dd

                                                                                Time: [   ] [   ] hh:mm:ss

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

$E_{min} = I_{min} - A_{min}$ $E_{max} = I_{max} - A_{max}$

	Area			Area			$E_r = E_{max} - E_{min}$	Corrected value [16]
	A_{min}	Indication I_{min}	Error E_{min}	A_{max}	Indication I_{max}	Error E_{max}		
1								
2								
3								
4								
5								

Average error = average E_r [   ]

$(E_r)_{max} - (E_r)_{min} =$ [   ]

Scale interval, $d =$ [   ]

If $\left| (E_r)_{max} - (E_r)_{min} \right| \leq 0.5\, d$, one reading will be sufficient for each of the subsequent measurements.

Remarks:

---

[16] When applicable, necessary corrections resulting from variations of temperature, pressure, etc. See remarks.

5   Span stability test (continued)

Subsequent measurements

For each of the subsequent measurements (at least 7), indicate under "conditions of the measurement", as appropriate, whether the measurement has been performed after:

☐ the temperature test, the EUT having been stabilized for at least 16 h

☐ the damp heat test, the EUT having been stabilized for at least 16 h

☐ the EUT has been disconnected from the mains for at least 8 h and then stabilized for at least 5 h

☐ any change in the test location

☐ any other specific condition: ....

Measurement no. 2:

	At start	At end	
Temp:			°C
Rel. h.:			%
Date:			yyyy-mm-dd
Time:			hh:mm:ss

Application no.:   ....

Type designation: ....

Observer: ....

Scale interval, d: ....

Resolution during test:
(smaller than d)   ....

Conditions of the measurement: ....

$E_{min} = I_{min} - A_{min}$ $E_{max} = I_{max} - A_{max}$

	Area			Area			$E_r =$ $E_{max} - E_{min}$	Corrected value [17]
	A_{min}	Indication I_{min}	Error E_{min}	A_{max}	Indication I_{max}	Error E_{max}		
1								
2								
3								
4								
5								

If five measurements and readings have been performed: Average error = average E_r ☐

Remarks:

[17] When applicable, necessary corrections resulting from variations of temperature, pressure, etc. See remarks.

5 Span stability test (continued)

Measurement no. 3:

	At start	At end	
Application no.:	....		
Type designation:	....		
Observer:	....		
Scale interval, *d*:	....		
Resolution during test: (smaller than *d*)	....		

Temp: ___ | ___ °C
Rel. h.: ___ | ___ %
Date: ___ | ___ yyyy-mm-dd
Time: ___ | ___ hh:mm:ss

Conditions of the measurement: ....

$E_{min} = I_{min} - A_{min}$ $E_{max} = I_{max} - A_{max}$

	Area			Area			$E_r = E_{max} - E_{min}$	Corrected value [18]
	A_{min}	Indication I_{min}	Error E_{min}	A_{max}	Indication I_{max}	Error E_{max}		
1								
2								
3								
4								
5								

If five measurements and readings have been performed: Average error = average E_r _____

Remarks:

---

[18] When applicable, necessary corrections resulting from variations of temperature, pressure, etc. See remarks.

5 Span stability test (continued)

Measurement no. 4:

		At start	At end	
Application no.:	....	Temp:		°C
Type designation:	....	Rel. h.:		%
Observer:	....	Date:		yyyy-mm-dd
Scale interval, *d*:	....	Time:		hh:mm:ss
Resolution during test: (smaller than *d*)	....			

Conditions of the measurement: ....

$E_{min} = I_{min} - A_{min}$ $E_{max} = I_{max} - A_{max}$

	Area			Area			$E_r = E_{max} - E_{min}$	Corrected value [19]
	A_{min}	Indication I_{min}	Error E_{min}	A_{max}	Indication I_{max}	Error E_{max}		
1								
2								
3								
4								
5								

If five measurements and readings have been performed: Average error = average E_r [ ]

Remarks:

---

[19] When applicable, necessary corrections resulting from variations of temperature, pressure, etc. See remarks.

5   Span stability test (continued)

Measurement no. 5:

	At start	At end	

Application no.:   ....   Temp: | | | °C

Type designation: ....   Rel. h.: | | | %

Observer: ....   Date: | | | yyyy-mm-dd

Scale interval, d: ....   Time: | | | hh:mm:ss

Resolution during test:
(smaller than d)   ....

Conditions of the measurement: ....

$E_{min} = I_{min} - A_{min}$ $E_{max} = I_{max} - A_{max}$

	Area			Area			$E_r = E_{max} - E_{min}$	Corrected value [20]
	A_{min}	Indication I_{min}	Error E_{min}	A_{max}	Indication I_{max}	Error E_{max}		
1								
2								
3								
4								
5								

If five measurements and readings have been performed: Average error = average E_r | |

Remarks:

---

[20] When applicable, necessary corrections resulting from variations of temperature, pressure, etc. See remarks.

5   Span stability test (continued)

Measurement no. 6:

	At start	At end	
Application no.:	....	Temp:			°C
Type designation:	....	Rel. h.:			%
Observer:	....	Date:			yyyy-mm-dd
Scale interval, d:	....	Time:			hh:mm:ss

Resolution during test:
(smaller than d)   ....

Conditions of the measurement: ....

$E_{min} = I_{min} - A_{min}$ $E_{max} = I_{max} - A_{max}$

	Area			Area			$E_r =$ $E_{max} - E_{min}$	Corrected value [21]
	A_{min}	Indication I_{min}	Error E_{min}	A_{max}	Indication I_{max}	Error E_{max}		
1								
2								
3								
4								
5								

If five measurements and readings have been performed: Average error = average E_r [   ]

Remarks:

---

[21] When applicable, necessary corrections resulting from variations of temperature, pressure, etc. See remarks.

5 Span stability test (continued)

Measurement no. 7:

	At start	At end	

Application no.: .... Temp: °C

Type designation: .... Rel. h.: %

Observer: .... Date: yyyy-mm-dd

Scale interval, d: .... Time: hh:mm:ss

Resolution during test:
(smaller than d) ....

Conditions of the measurement: ....

$E_{min} = I_{min} - A_{min}$ $E_{max} = I_{max} - A_{max}$

	Area			Area			$E_r = E_{max} - E_{min}$	Corrected value [22]
	A_{min}	Indication I_{min}	Error E_{min}	A_{max}	Indication I_{max}	Error E_{max}		
1								
2								
3								
4								
5								

If five measurements and readings have been performed: Average error = average E_r

Remarks:

---

[22] When applicable, necessary corrections resulting from variations of temperature, pressure, etc. See remarks.

5   Span stability test (continued)

Measurement no. 8:

		At start	At end	

Application no.:   ....   Temp: [   ][   ]   °C

Type designation: ....   Rel. h.:   [   ][   ]   %

Observer: ....   Date: [   ][   ]   yyyy-mm-dd

Scale interval, d: ....   Time: [   ][   ]   hh:mm:ss

Resolution during test:
(smaller than d)   ....

Conditions of the measurement: ....

$E_{min} = I_{min} - A_{min}$ $E_{max} = I_{max} - A_{max}$

	Area			Area			$E_r = E_{max} - E_{min}$	Corrected value [23]
	A_{min}	Indication I_{min}	Error E_{min}	A_{max}	Indication I_{max}	Error E_{max}		
1								
2								
3								
4								
5								

If five measurements and readings have been performed: Average error = average E_r [   ]

Remarks:

---

[23] When applicable, necessary corrections resulting from variations of temperature, pressure, etc. See remarks.

5   **Span stability (continued)**

SPAN STABILITY TEST (CONTINUED)

Application no.: ....

Type designation: ....

Plot on the diagram the indications of the temperature test, **T**, the damp heat test, **D**, and disconnections from the mains power supply, **P**

Measurement no.

Average error, A_i

+ 1.5 d
+ 1 d
+ 0.5 d
0
− 0.5 d
− 1 d
− 1.5 d

1 2 3 4 5 6 7 8
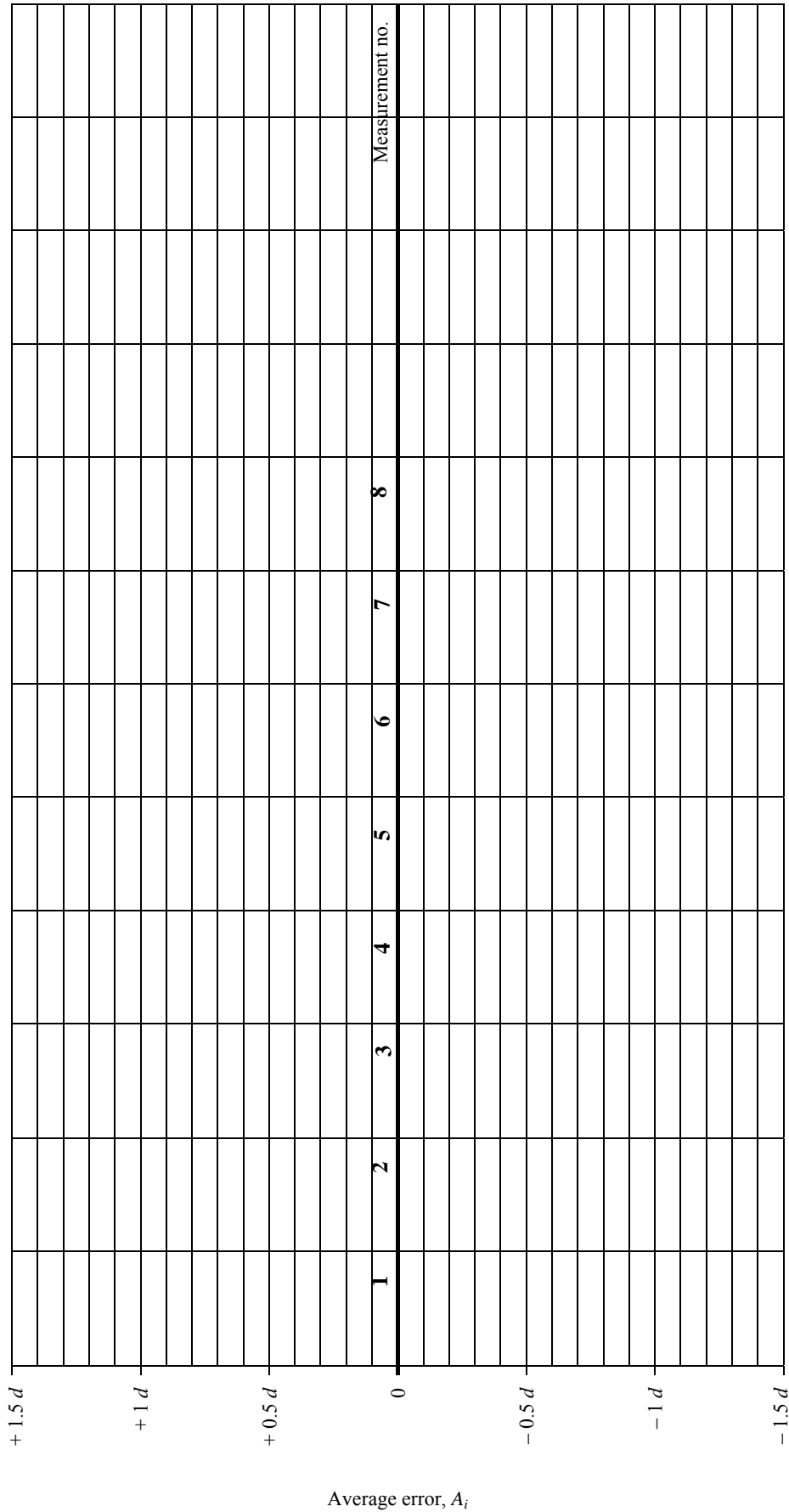
Maximum allowable variation

Passed   Failed

6   EXAMINATION OF THE CONSTRUCTION OF THE INSTRUMENT

Use this page to indicate any description or information pertaining to the instrument, additional to that already contained in this report and in the accompanying national type approval or OIML Certificate. This may include a picture of the complete instrument, a description of its main components, and any remark which could be useful for authorities responsible for the initial or subsequent verifications of individual instruments built according to the type. It may also include references to the manufacturer description.

Description:

Remarks:

CHECKLIST

The checklist has been developed based on the following principles:

- To include requirements that cannot be tested according to tests 1 through 5 above, but shall be checked visually, e.g. the descriptive markings (3.9);

- To include requirements that indicate prohibitions of some functions, e.g. semi-automatic zero-setting devices shall not be operable during automatic operation (3.4.1.);

- Not to include general requirements, e.g. suitability for use (3.1);

- This checklist is intended to serve as a summary of the results of examinations to be performed and not as a procedure. The items on this checklist are provided to recall the requirements specified in R 136-1 and shall not be considered as a substitution for these requirements.

- For non-mandatory devices, the checklist provides space to indicate whether or not the device exists and, if appropriate, its type. A cross in the box for "present" indicates that the device exists and that it complies with the definition given in the terminology; when indicating that a device is "not present", also check the boxes to indicate that the tests are not applicable (see the explanatory notes at the beginning of this publication).

- If appropriate, the results stated in this checklist may be supplemented by remarks given on additional pages.

7   CHECKLIST

Application no.: ....   Type designation: ....

Reference clause	Reference Annex A	Requirements and test procedures from R 136-1 *Instruments for measuring the area of leathers*	Passed	Failed	Remarks
2.4	**A.1.3**	**Units of measurement:**			
		dm^2			
		or, ft^2 under national prescription			
3.2		**Security of operation**			
3.2.1		No characteristics likely to facilitate fraudulent use			
3.2.2		Effect of accidental breakdown or maladjustment is evident			
3.2.3		**Security:**			
		Means for securing components, interfaces, software devices and pre-set controls provided			
3.2.4		Unauthorized access prohibited, or			
		Unauthorized access detected and made evident by an audit trail			
3.2.5		**Controls:**			
		Come to rest in intended positions			
		Unambiguously marked keys			
3.3		**Indication of measurement results**			
3.3.1.1		**Quality of reading:**			
		Reliable, simple and unambiguous			
		Overall inaccuracy of an analog device shall not exceed 0.2 *d*			
		Figures forming the results shall be of a size, shape and clarity for reading to be easy			
		Scales, numbering and printing shall permit the figures to be read by simple juxtaposition			
3.3.1.2		Form of the indication:			
		Measuring results expressed with the names or symbols of the unit of area, dm^2, or			
		ft^2, in accordance with 2.4			
		All indicating, printing and measuring devices have the same scale interval within any one area measurement range			
		Digital indication displays at least one figure beginning at extreme right			
3.3.1.3		Scale interval in the form 1×10^k, 2×10^k or 5×10^k units (*k* being a positive or negative whole number or zero)			
3.3.2		Analog indicator:			
3.3.2.1		Indication index symmetrical about the associated scale marks			
		End of the scale marks of a constant thickness and shortest scale marks not obscured by the indication index			
3.3.2.2		For indicators with rotating index, direction of rotation of index is clockwise for increasing area			
3.3.2.3		For indicators with an aperture view, the width of the aperture measured in the direction of indicator travel allows the visibility of the numbers of at least two numbered scale marks at all times			
3.3.2.4		Form and size of scale marks are straight lines, evenly spaced at a minimum of 2 mm and of uniform width.			
3.3.2.5		Distance between dial indicator and index is less than the width of the scale spacing			

Reference clause	Reference Annex A	Requirements and test procedures from R 136-1 *Instruments for measuring the area of leathers*	Passed	Failed	Remarks
3.4	**A.5**	**Zero-setting devices:**	Present [ ]	Not present [ ]	
		Non-automatic zero-setting	[ ]		[ ]
		Semi-automatic zero-setting	[ ]		[ ]
		Automatic zero-setting	[ ]		[ ]
3.4.1		Control of zero-setting devices:			
		Automatic zero-setting automatic zero-setting at start of automatic operation			
		Automatic zero-setting automatic zero-setting operates as part of every automatic measurement cycle			
		Automatic prevention of zero-resetting or zero indication when leather material is in the measuring area			
3.4.2		Accuracy of zero-setting:			
		Zero for digital indicators			
		The greater of: 1.0 dm^2 or 0.25 d for analog indicators			
3.5	**A.1.3**	**Totalizing indicator:**	Present [ ]	Not present [ ]	
		Totalized value identified by special word or symbol			
		Totalized values are algebraic sums of all indicated values			
3.6		**Printing device:**	Present [ ]	Not present [ ]	
		Clear and permanent			
		Name or symbol of unit is to the right of the value or above a column of values			
		At least 2 mm high			
3.8		**Sealing:**			
3.8.1		Components not intended to be adjusted or removed by the user are: — sealed, or			
		— enclosed			
		If enclosed, the enclosure is sealed			
		Seals are easily accessible			
		Sealing provided on all parts of the measuring system which cannot be materially protected in any other way against operations liable to affect the measurement accuracy			
		Sealing devices prohibit parameters which participate in the determination of the result of measurement from being changed			
3.8.2		**Electronic sealing devices:**	Present [ ]	Not present [ ]	
		Access shall only be allowed to authorized people			
		It is possible for at least the last intervention to be memorized			
		The record includes the date and a characteristic element identifying the authorized person			
		Traceability of the intervention is assured for two years, if not over-written by a further intervention			
		Where more than one intervention is stored, the oldest record is deleted to permit a new record			
3.8.3		**Mechanical sealing devices:**	Present [ ]	Not present [ ]	
		Easily affixed			
		Do not affect metrological properties			
		Prohibit access to electronic means of changing parameters			

Reference clause	Reference Annex A	Requirements and test procedures from R 136-1 *Instruments for measuring the area of leathers*	Passed	Failed	Remarks
3.9	**A.2.2**	**Descriptive markings**			
3.9.1		**Markings shown in full:**			
		Name or identification mark of the manufacturer			
		Name or identification mark of the importer (if applicable)			
		Date of manufacture of the instrument (if applicable)			
		Serial number and type designation of the instrument			
		Temperature range (if applicable) in the form: ...... °C / ...... °C			
		Electrical supply voltage in the form: V			
		Electrical supply frequency in the form: ...... Hz			
3.9.2		**Markings shown in code:**			
		Type approval sign			
		Indication of the class of accuracy in the form: ...... X(x)			
		Scale interval in the form: d = ... dm^2			
		Maximum area in the form: A_{max} = ... dm^2			
		Minimum area in the form: A_{min} = ... dm^2			
3.9.3		Supplementary markings:			
		Any additional markings	enter in remarks		
3.9.4		**Presentation of descriptive markings:**			
		Indelible, and size, shape and clarity for easy reading			
		Grouped together in a clearly visible place on the instrument, either on a descriptive plate fixed near the indicating device or on the indicating device itself.			
		Shown on a programmable display, access automatically and non-erasably recorded			
3.10	**A.2.3**	**Verification mark:**			
		Place where the verification mark is located cannot be removed without damaging the mark			
		Allows easy application of mark without changing the metrological properties of the instrument			
		Visible without the instrument or its protective covers having to be removed			
4.3	**A.1.3**	**Functional requirements**			
4.3.1		**Acting upon a significant fault:**			
		By verifying the compliance with documents or by simulating faults check that:			
		Either the instrument is made inoperative automatically, or			
		Provision of automatic and continuous visual or audible indication until action is taken or the fault disappears			
		Automatic instruments made inoperative automatically			
4.3.2		At switch-on, automatically all relevant signs of indicator display are active and non-active for sufficient time to be checked by operator			
4.3.4		During warm-up time there is no indication or transmission of measurement results and automatic operation is inhibited			

Reference clause	Reference Annex A	Requirements and test procedures from R 136-1 *Instruments for measuring the area of leathers*	Passed	Failed	Remarks
4.3.6	A.6.1.2.2	**Interfaces shall not allow:**			
		Functions and data to be inadmissibly influenced by peripheral devices or other connected instruments or disturbances			
		When an interface is used the instrument continues to function correctly and its metrological functions and measuring data not influenced by peripheral devices or other connected instruments or disturbances			
		Functions performed or initiated through the interface meet the relevant requirements of clause 3			
		It is not possible to introduce into the instrument, through the interface, functions, program modules or data structures intended to: ▪ display unclear data, ▪ falsify displayed, processed or stored measurement results, ▪ permit unauthorized adjustment of the instrument			
		Other interfaces secured in accordance with 3.2.3			
4.3.7	A.1.3	DC mains supply:	Present [ ]	Not present [ ]	
		Battery power supply:	Present [ ]	Not present [ ]	
		When voltage supply is below manufacturer's specified value:			
		Continues to function correctly, or			
		Show a significant error, or			
		Is automatically put out of service			
5.2.1	A.1.1	**Documentation includes:**			
		Metrological characteristics of the instrument			
		A set of specifications for the instrument			
		A functional description of the components and devices			
		Drawings, diagrams and general software information (if applicable), explaining the construction and operation, including interlocks, etc.			
		Any document or other evidence that the design and construction of the instrument comply with the requirements of this Recommendation			
	A.1.2	Compliance of the instrument and its devices with the documentation			
5.2.3		**Examination of:**			
		Documents			
		Functional checks			
		Test reports from other authorities			
6.1.1		Test with independently and quality-certified templates:	enter in remarks		
7	A.8	Test in accordance with "Code of practice for the area measurement of leather 1998"	enter in remarks		
		Test in accordance with ISO 11646 (1993)	enter in remarks		

Use this space to detail remarks from the checklist: