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Part 3 – Test report format

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INTERNATIONAL **OIML R 129-3**
RECOMMENDATION Edition 202x (E)

Multi-dimensional Measuring Instruments

Part 3: Test report format

Instruments de mesure multidimensionnels

Partie 3: Format du rapport d'essais



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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 Project Groups linked to 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 129-3, Edition 202x - was developed by Project Group 1 of OIML TC 7/SC 5 *Dimensional Measuring Instruments*. It was approved for final publication by the International Committee of Legal Metrology in 202x and will be submitted to the International Conference of Legal Metrology in 202x for formal sanction.

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Introduction

The “Test report format”, the subject of OIML R 129-3, aims at presenting, in a standardized format, the results of the various tests and examinations to which a type of a multi-dimensional measuring instrument shall be submitted with a view to its approval.

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 the performance test procedures (OIML R 129-2).

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 essential data (name, type, reference number for purpose 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 electromagnetic susceptibility test.

All metrology services or laboratories evaluating types of multi-dimensional measuring instrument according to OIML R 129-1 and -2 or to national or regional regulations based on OIML R 129-1 and -2 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 Certification System (OIML-CS), use of the “Test report format” is mandatory.

Test report

Explanatory notes

Meaning of symbols used in this report

L	= Indicated length
W	= Indicated width
H	= Indicated height
L_T	= Length of the test object
DL	= Error, $L - L_T$
W_T	= Width of the test object
DW	= Error, $W - W_T$
H_T	= Height of the test object
DH	= Error, $H - H_T$
MPE	= Maximum permissible error
V	= The volume indicated on the instrument
V_{calc}	= $L \times W \times H$
F	= Conversion factor
DW	= The dimensional weight indicated on the instrument
DW_{calc}	= $V \times F$
SF	= Significant fault

Explanatory notes (continued)

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

The boxes under 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:	2014-10-15	2014-10-15	yyyy-mm-dd
Time:	16:00:05	16:30:05	hh:mm:ss

where: Temp. = temperature
Rel. h. = relative humidity

“Date” in the test report refers to the date on which the test was performed.

"ID" refers to the identity of the test object used (e.g. unique identifying number) and is entered in the appropriate columns as required.

Identification of the instrument

Application no.:	Type designation:
Identification no.:	Manufacturer:
Software version:		
Report date:		

Documentation from the manufacturer

(Record as necessary to identify the equipment under test)

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

Simulator documentation (if applicable)

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

Identification of the instrument (continued)

Application no.:	Type designation:
Identification no.:	Manufacturer:
Software version:		
Report date:		

Simulator function (summary) (if applicable)

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

Identification of the instrument (continued)

Application no.:	Type designation:
Identification no.:	Manufacturer:
Software version:		
Report date:		

Physical description of the instrument

Describe, using point form, the physical construction of the MDMI (materials, configuration and location of components, interfaces and communications ports). Attach photographs, diagrams or drawings if available:

Describe, using point form, the measurement technology used (include details such as physical contact method; laser class, power and wavelength; ultrasonic frequency; or camera spectrum):

General information concerning the type

Application no.: Manufacturer:

Type designation: Applicant:

Instrument category:

Parameter limits		
	Minimum	Maximum
Temperature limits (°C)		
Speed limitations (m/s)		
Voltage (V)		
Minimum spacing		/

Limitation	Check if applicable
Object	
Cuboidal	
Irregular	
Singulated	
Non-singulated, non-touching	
Touching	
Measurement dynamics	
Static measurement only	
Fixed Speed	
Variable Speed	
Unidirectional	
Bidirectional	
Installation	
Permanent	
Mobile	
Power Supply	
AC	
AC-DC converter	
Battery	
DC	

Evaluation period:

Date of report:

Observer:

General information concerning the type (continued)

Application no.: Manufacturer:

Type designation: Applicant:

Instrument category:

Scale Interval and limits of indication

Axis	Unit of measurement	Scale interval (d)	Minimum dimension	Maximum dimension
X				
Y				
Z				

Describe, using point form, each axis and its relation to the physical object being measured and/or the MDMI itself:

Use this space to describe, using point form, any other use or installation limitations not detailed in the above on the previous page (such as special applications other than postage, freight or storage; restrictions on object material, texture, reflectivity or colour; object positioning):

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

General information concerning the type (continued)

Application no.:	Manufacturer:
Type designation:	Applicant:
Instrument category:		

Indications and controls

Describe, using point form, all indications and controls of the instrument (such as wired or wireless communication with instrument; zero method; ready indication, computed quantities, error codes). Describe each measurement (L, W, and H) and its relation to the physical object being measured and/or the MDMI itself:

Sealing

Describe, using point form, the physical and electronic seals (e.g. audit trails) used to protect the metrological characteristics of the instrument, and how to access them. Also describe any remote access abilities available and how this is sealed:

Software

Describe, using point form, the means used to protect legally relevant software in the instrument and indicate the version of the software present at the time of testing and how to verify this version number:

Configuration for test

Application no.: Type designation:
 Report date: Manufacturer:

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

Calibration information

Calibration principle

--

Calibration number	GT1	GT2	etc*
Version number:			
Displayed name:			
Displayed name:			
Date submitted:			
Date submitted:			

Regression information -

Approx number of data points:			
Data sources, date range			
Reference method(s):			
Other validation result (e.g. SD, SEP)			
Default slope (if applic):			
Default bias (if applic):			
Other characteristic:			

*Copy table into additional pages if more than two calibrations are submitted for examination

Comments:

--

Adjustments or modifications

Application no.:	Type designation:
Report date:	Manufacturer:

Use this space for additional information relating to the identification of any authorized and agreed upon adjustments or modifications made to the sample or samples during the evaluation.

Summary of type evaluation tests

Application no.:

Type designation:

Report date:

Manufacturer:

2. Type Evaluation Tests

2.1. SUMMARY OF TYPE EVALUATION

Report No.:
 Application No.:
 Manufacturer:
 Make & Model:

Section	Test	Report Page	Pass	Fail	Remarks
2.2	Instrument warm up time (A.1.1)				
2.3	Repeatability (A.1.2)				
2.4	Static temperatures (A.2.1)				
2.4.1	Initial reference temperature = °C				
2.4.2	High temperature = °C				
2.4.3	Low temperature = °C				
2.4.3	End reference temperature = °C				
2.5	Damp heat (A.2.2)				
2.5.1	Steady State (non-condensing) (A.2.2.1)				
2.5.1.1	Initial reference temperature and 50% relative humidity				
2.5.1.2	High temperature and 85% relative humidity				
2.5.1.3	End reference temperature and 50% relative humidity				
2.5.2	Cyclic (condensing) (A.2.2.2)				
2.5.2.1	DH cyclic				
2.6	AC mains voltage variation (A.2.3)				
2.6.1	Nominal voltage				
2.6.2	Nominal voltage + 10%				
2.6.3	Nominal voltage - 15%				
2.7	Low voltage of internal battery (A.2.4)				
2.7.1	Nominal voltage				
2.7.2	Low voltage				
2.8	AC mains voltage dips, short interruptions and reductions (A.3.1)				
2.9	Electrical bursts test (A.3.2)				
2.9.1	Power supply lines				
2.9.2	Input/output control circuits and communication lines				
2.10	Electrostatic discharge (A.3.3)				
2.10.1	Direct application				
2.10.2	Indirect application				
2.10.3	Additional Sheet				
2.11	Electrical surges (A.3.4)				
2.11.1	Surges on AC mains power lines (A.3.4.1)				
2.11.1.1	AC surge voltage at 0°				
2.11.1.2	AC surge voltage at 90°				
2.11.1.3	AC surge voltage at 180°				
2.11.1.4	AC surge voltage at 270°				
2.11.2	Surges on signal, data and control lines (A.3.4.2)				
2.12	Immunity to RF Electromagnetic fields (A.3.5)				
2.12.1	Radiated RF electromagnetic fields (A.3.5.1)				
2.12.2	Conducted RF electromagnetic fields (A.3.5.2)				
2.12.3	Additional Sheet				
2.13	Ambient light (A.4.1)				
2.13.1	200 lx to 500 lx (reference)				
2.13.2	100 lx				
2.13.3	1000 lx to 1500 lx				
2.13.4	Other intensity lx				
2.13.5	Additional Sheet				
2.14	Acoustics (A.4.2)				
2.14.1	Reference sound level (..... dB)				
2.14.2	Sound Level 100 dB				
2.14.3	Additional Sheet				
2.15	Shape of the object (A.1.7)				
2.16	Uniform surface colour test (A.1.7)				
2.17	Non uniform surface colour test (A.1.7)				
2.18	Contrast of colour with background colour test (A.1.7)				
2.19	Surface reflectivity and absorption of sound test (A.1.7)				
2.20	Surface reflectivity and absorption of colour test (A.1.7)				
2.21	Uniformity of density test (A.1.7)				
2.22	Transparency test (A.1.7)				
2.23	Surface roughness test (A.1.7)				
2.24	Protrusions on the surface test (A.1.7)				
2.25	Orientation and position test (A.1.7)				
2.26	Speed of relative movement test (A.1.7)				
2.26.1	Minimum speed				
2.26.2	Maximum speed				
2.27	Examination of the construction of the instrument (R129-1, clause 5.1.2)				

2.3 Repeatability (A.1.2)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

	At start	At end
Temp (°C)		
RH (%)		
Time		
Date		

Ancillary Device : Connected ☐ Not connected but connectable ☐ Not connected ☐Correct indication of ancillary device ☐ (yes/no)Conveyor Speed (m/min): minimum ☐ maximum ☐ other ☐

Test object ID		Length =		Width =		Height =		Initial zeroing		yes		
		unit=		unit=		unit=		(Ready condition)		no		
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1												
2												
3												

Test object ID		Length =		Width =		Height =		Initial zeroing (Ready condition)		yes	no	
		unit=		unit=		unit=						
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1												
2												
3												

Test object ID		Length =		Width =		Height =		Initial zeroing (Ready condition)		yes	no	
		unit=		unit=		unit=						
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1												
2												
3												

Test object ID		Length =		Width =		Height =		Initial zeroing		yes		
		unit=		unit=		unit=		(Ready condition)		no		
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1												
2												
3												

Test object ID		Length =		Width =		Height =		Initial zeroing (Ready condition)		yes		
		unit=		unit=		unit=				no		
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1												
2												
3												

Remarks

RESULT:

PASS

☐

FAIL

☐

2.4 Static temperatures (A.2.1)**2.4.1 Initial Reference temperature (A.2.1)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

	At start	At end
Temp (°C)		
RH (%)		
Time		
Date		

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1													
2													
3													
4													
5													

Remarks**RESULT:****PASS****FAIL**

2.4 Static temperatures (A.2.1)**2.4.2 High and low temperatures**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

	At start	At end
Temp (°C)		
RH (%)		
Time		
Date		

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	High temperature	Pass/Fail
												Dwcalc	
1													
2													
3													
4													
5													

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Low temperature	Pass/Fail
												Dwcalc	
1													
2													
3													
4													
5													

Remarks

RESULT:

PASS

FAIL

2.4 Static temperatures (A.2.1)**2.4.3 Reference temperature (A.2.1)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

At start At end

Temp (°C)

RH (%)

Time

Date

Ancillary Device :

Connected

☐Not connected
but connectable☐

Not connected

☐

Correct indication of ancillary device

☐

(yes/no)

Conveyor Speed (m/min):

minimum

☐

maximum

☐

other

☐

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1													
2													
3													
4													
5													

Remarks**RESULT:****PASS**☐**FAIL**☐

2.5 Damp heat (A.2.2)**2.5.1 Steady state (non-condensing)****2.5.1.1 Initial reference temperature and 50% relative humidity (A.2.2.1)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

	At start	At end
Temp (°C)		
RH (%)		
Time		
Date		

Ancillary Device :

Connected ☐Not connected
but connectable ☐Not connected ☐Correct indication of ancillary device ☐ (yes/no)

Conveyor Speed (m/min):

minimum ☐maximum ☐other ☐

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1													
2													
3													
4													
5													

Remarks**RESULT:****PASS** ☐**FAIL** ☐

2.5 Damp heat (A.2.2)**2.5.1 Steady state (non-condensing)****2.5.1.2 High temperature and 85% relative humidity (A.2.2.1)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Time

Date

At start At end

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1													
2													
3													
4													
5													

Remarks**RESULT:****PASS****FAIL**

2.5 Damp heat (A.2.2)**2.5.1 Steady state (non-condensing)****2.5.1.3 End reference temperature and 50% relative humidity (A.2.2.1)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Time

Date

At start At end

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1													
2													
3													
4													
5													

Remarks

RESULT:

PASS

FAIL

2.5 Damp heat (A.2.2)

2.5.2 Cyclic (condensing)

2.5.2.1 Damp heat cyclic (A.2.2.2)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

	At start	At end
Temp (°C)		
RH (%)		
Time		
Date		

Ancillary Device :

Connected

Not connected but connectable

Not
connected

Correct indication of ancillary device ☐ (yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

							Ref Temp (°C)	
Test Object ID	Initial zeroing (yes/no)	Indication			SF > d	SF*	Result	Comment
		L	W	H				
1					Y/N	Y/N	PASS/FAIL	
2								
3								
4								
5								

Damp heat, cyclic (24 h x 2 cycles)

							Ref Temp (°C)	
Test Object ID	Initial zeroing (yes/no)	Indication			SF > d	SF*	Result	Comment
		L	W	H				
1					Y/N	Y/N	PASS/FAIL	
2								
3								
4								
5								

1. SF* - Significant Fault detected and acted upon.

Remarks

RESULT:

PASS

FAIL

2.6 AC mains voltage variation (A.2.3)

2.6.1 Nominal Voltage (A.2.3)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Nominal Voltage (V)

Time

Date

At start

At end

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1													
2													
3													
4													
5													

Remarks

RESULT:

PASS

FAIL

2.6 AC mains voltage variation (A.2.3)**2.6.2 Nominal Voltage -15% (A.2.3)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Nominal Voltage + 10% (V)

Time

Date

At start At end

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1													
2													
3													
4													
5													

Remarks

RESULT:

PASS

FAIL

2.6 AC mains voltage variation (A.2.3)

2.6.3 Nominal Voltage +10% (A.2.3)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Nominal Voltage - 15% (V)

Time

Date

At start At end

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1													
2													
3													
4													
5													

Remarks

RESULT:

PASS

FAIL

2.7 Low voltage of internal battery (A.2.4)**2.7.1 Nominal Voltage (A.2.4)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)
RH (%)
Marked Nominal Voltage (V)
Time
Date

At start At end

Ancillary Device :

Connected

Not connected
but connectableNot
connected

Correct indication of ancillary device (yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1													
2													
3													
4													
5													

Remarks

RESULT:

PASS

FAIL

2.7 Low voltage of internal battery (A.2.4)**2.7.2 Low Voltage (A.2.4)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Low Voltage (V)

Time

Date

At start At end

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial zeroing (yes/no)	L	ΔL	W	ΔW	H	ΔH	MPE	V	Vcalc	DW	Dwcalc	Pass/Fail
1													
2													
3													
4													
5													

Remarks**RESULT:****PASS****FAIL**

2.8 AC mains voltage dips, short interruptions and reductions (A.3.1)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Time

Nominal Voltage (V)

Date

At start

At end

Ancillary Device :

Connected

Not connected

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test object ID	Length = unit=	Width = unit=	Height = unit=	Initial zeroing (Ready condition)	yes no
----------------	-------------------	------------------	-------------------	--------------------------------------	-----------

Instrument

Instrument	Reduction in amplitude to (as % marked nom voltage)	Duration* (in cycles)	Number of disturbances ≥ 10	Time between disturbances ≥ 10 s	Indication			SF > d Y/N	SF* Y/N	Result PASS/FAIL	Commer
					L	W	H				
	units										
	0	0		–							
	0	0.5									
	0	1									
	40	10/12									
	70	25/30									
	80	250/300									
	0	250/300									

Ancillary Device

Ancillary Device				Indication			SF > d	SF*	Result	Comments
Reduction in amplitude to (as % marked nom voltage)	Duration* (in cycles)	Number of disturbances ≥ 10	Time between disturbances ≥ 10 s							
units							Y/N	Y/N	PASS/FAIL	
0	0	0	–							
0	0.5									
0	1									
40	10/12									
70	25/30									
80	250/300									
0	250/300									

Notes:

1. SF* - Significant Fault detected and acted upon.
2. amplitude* - In case of a marked voltage range, use the average value as the marked nominal voltage.
3. duration* - values applicable for 50 Hz / 60 Hz respectively

Remarks

RESULT:

PASS

FAIL

2.9 Electrical bursts (A.3.2)**2.9.1 Power supply lines (A.3.2)**

Observer:
 Type/ application #:
 Instrument ID:
 Scale Interval (d):
 Conversion Factor (F)

Temp (°C)
 RH (%)
 Time
 Nominal Voltage (V)
 Date

At start
 At end

Ancillary Device : Connected Not connected
 but connectable Not connected

Correct indication of ancillary device (yes/no)

Conveyor Speed (m/min) minimum maximum other

Test object ID Length = Width = Height =
 unit= unit= unit= Initial zeroing (Ready condition) yes/no

Instrument

	Instrument			Polarity	Results							
	L	N	PE		L	Indication		H	SF > d Y/N	SF * Y/N	Result PASS/FAIL	Comments
	↓ ground	↓ ground	↓ ground			W						
Without disturbance	X			pos neg								
Without disturbance	X			pos neg								
Without disturbance	X			pos neg								

NOTES: 1. SF * - Significant fault detected and acted upon.
 2. L = Phase, N = Neutral , PE = Protective Earth

Ancillary device

	Ancillary device			Polarity	Results						
	L	N	PE		L	Indication	H	SF > d Y/N	SF * Y/N	Result PASS/FAIL	Comment
	↓ ground	↓ ground	↓ ground			W					
Without disturbance	X			pos neg							
Without disturbance	X			pos neg							
Without disturbance	X			pos neg							

NOTES: 1. SF * - Significant fault detected and acted upon.
 2. L = Phase, N = Neutral , PE = Protective Earth

Remarks**RESULT:****PASS**

FAIL

2.9 Electrical bursts (A.3.2)

2.9.2 Input / Output circuits and communication lines (A.3.2)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)
RH (%)
Time
Nominal Voltage (V)
Date

At start

At end

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

 (yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>
		Initial zeroing (Ready condition)	<input type="text"/>	yes no			

Connection	Polarity	Results						
Cable / Interface		L	Indication W	H	SF > d Y/N	SF * Y/N	Result PASS/FAIL	Comment
Without disturbance	pos neg	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Without disturbance	pos neg	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Without disturbance	pos neg	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Without disturbance	pos neg	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Without disturbance	pos neg	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Without disturbance	pos neg	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

NOTES: 1. SF * - Significant fault detected and acted upon.

Remarks:

(Explain or make a sketch indicating the location of clamp on the cable.)

RESULT:

PASS

FAIL

2.10 Electrostatic discharge (A.3.3)

2.10.1 Direct Application (A.3.3)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

	At start	At end
Temp (°C)		
RH (%)		
Time		
Nominal Voltage (V)		
Date		

Ancillary Device :	Connected		Not connected but connectable		Not connected	
Correct indication of ancillary device		(yes/no)				
Conveyor Speed (m/min):	minimum		maximum		other	
Contact discharges			Air discharges		Paint penetration	
			Polarity **		positive	
					negative	

Test object ID	Length =	Width =	Height =	Initial zeroing (Ready condition)	yes
	unit=	unit=	unit=		no

Instrument

Disturbance			Results						
Test Voltage (kV)	No. of discharges	Rep. interval (s)	Indication			SF > d	SF *	Result	Comment
	units		L	W	H	Y/N	Y/N	PASS/FAIL	
Without disturbance									
2									
4									
6									
8*									

Note: SF * - Significant fault detected and acted upon.

Ancillary device

Disturbance			Results						
Test Voltage (kV)	No. of discharges	Rep. interval (s)	Indication			SF > d	SF *	Result	Comment
	units		L	W	H	Y/N	Y/N	PASS/FAIL	
Without disturbance									
2									
4									
6									
8*									

Note: SF * - Significant fault detected and acted upon.

Remarks:

NOTES:

1. 8* - Air discharges
2. If the EUT fails, record the test point at which the EUT fails.
3. Polarity ** - Tests shall be conducted at the most sensitive polarity.

RESULT:

PASS

FAIL

2.10 Electrostatic discharge (A.3.3)

2.10.2 Indirect Application (A.3.3)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Time

Date

At start

At end

Nominal Voltage (V)

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Contact discharges

Air discharges

Paint penetration

Polarity **

positive

negative

Test object ID	Length =	Width =	Height =	Initial zeroing (Ready condition)	yes
	unit=	unit=	unit=		no

Horizontal coupling plane

Disturbance			Results						
Test Voltage (kV)	No. of discharges	Rep. interval (s)	L	Indication W	H	SF > d	SF *	Result	Comment
units						Y/N	Y/N	PASS/FAIL	
Without disturbance									
2									
4									
6									
8*									

Note SF * - Significant fault detected and acted upon.

Vertical coupling plane

Disturbance			Results						
Test Voltage (kV)	No. of discharges	Rep. interval (s)	L	Indication W	H	SF > d	SF *	Result	Comment
units						Y/N	Y/N	PASS/FAIL	
Without disturbance									
2									
4									
6									
8*									

Note SF * - Significant fault detected and acted upon.

Remarks:

NOTES:

1. 8* - Air discharges
2. If the EUT fails, record the test point at which the EUT fails.
3. Polarity ** - Tests shall be conducted at the most sensitive polarity.

RESULT:

PASS

FAIL

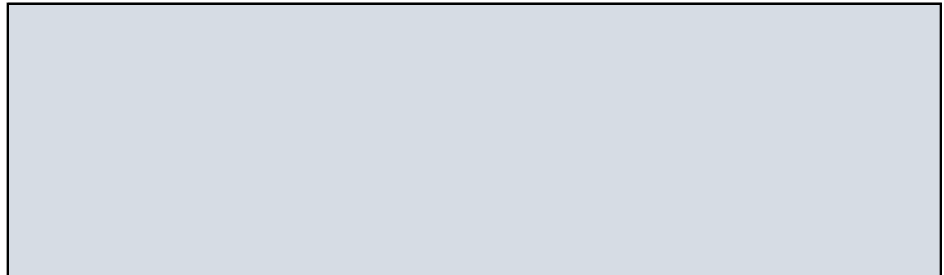
2.10 Electrostatic discharge (A.3.3)

2.10.3 Electrostatic discharge additional sheet (A.3.3)

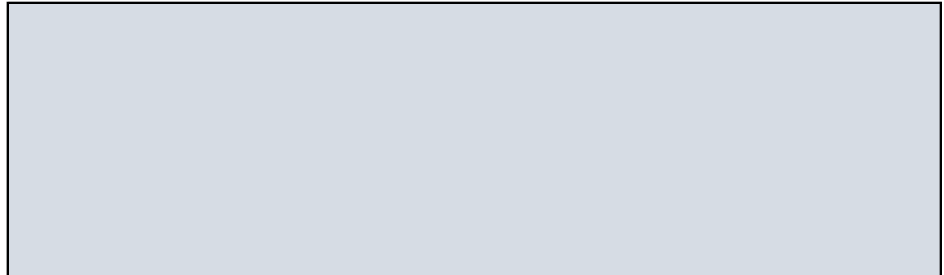
Specifications of test points of EUT (eg) photos or sketches

a) Direct application

Contact discharges:

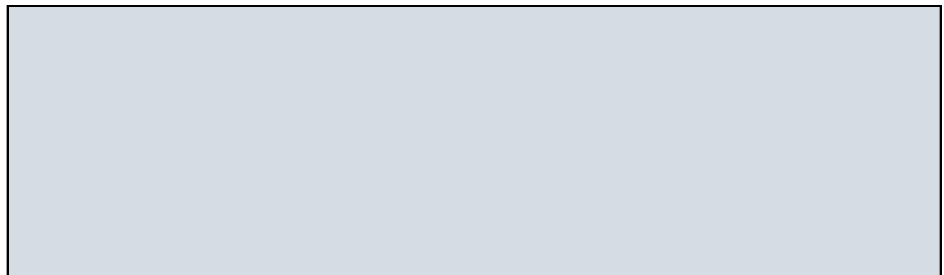


Air discharges:

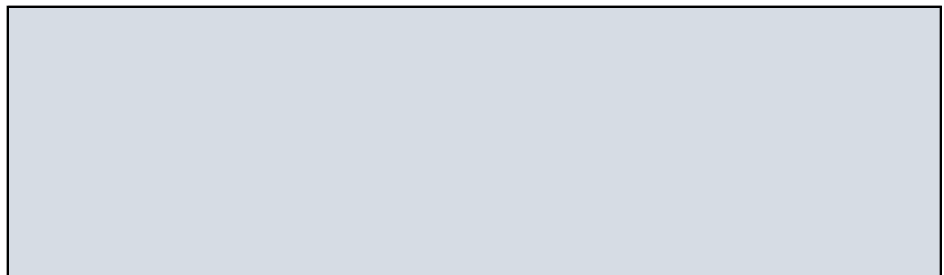


b) Indirect application

Contact discharges:



Air discharges:



2.11 Electrical surges (A.3.4)

2.11.1 Surges on AC mains

2.11.1.1 AC surge voltage at 0° (A.3.4.1)

Type/ application #:		Temp (°C)	At start	At end
Instrument ID:		RH (%)		
Scale Interval (d):		Time		
Conversion Factor (F)		Nominal Voltage (V)		
		Date		

Ancillary Device :	Connected	<input type="checkbox"/>	Not connected but connectable	<input type="checkbox"/>	Not connected	<input type="checkbox"/>
Correct indication of ancillary device	<input type="checkbox"/>	(yes/no)				
Conveyor Speed (m/min):	minimum	<input type="checkbox"/>	maximum	<input type="checkbox"/>	other	<input type="checkbox"/>

Test object ID	Length =	Width =	Height =	Initial zeroing	yes
	unit=	unit=	unit=	(Ready condition)	no

AC surge voltage at 0°

Instrument

Connection	Mode	Results						
Test conditions		L	Indication W	H	SF > d Y/N	SF * Y/N	Result PASS/FAIL	Comment
No Surge (reference condition)								
Positive	L-L							
Negative	L-L							
Positive	N-PE							
Negative	N-PE							
Positive	L-PE							
Negative	L-PE							
Positive	L2-PE							
Negative	L2-PE							

Ancillary Devices

Mode	Results						
	L	Indication W	H	SF > d Y/N	SF * Y/N	Result PASS/FAIL	Comment
No Surge (reference condition)							
Positive	L-L						
Negative	L-L						
Positive	N-PE						
Negative	N-PE						
Positive	L-PE						
Negative	L-PE						
Positive	L2-PE						
Negative	L2-PE						

1. SF * - Significant fault detected and acted upon.
2. L-L - Line to Line Surge
3. N-PE - Neutral to Protective Earth Surge
4. L-E - Line to Protective Earth Surge
5. L2-E - Line2 to Protective Earth Surge

Remarks:

--

RESULT: PASS ☐FAIL ☐

2.11 Electrical surges (A.3.4)

2.11.1 Surges on AC mains

2.11.1.2 AC surge voltage at 90° (A.3.4.1)

Type/ application #:		At start	At end
Instrument ID:		Temp (°C)	
Scale Interval (d):		RH (%)	
Conversion Factor (F)		Time	
		Nominal Voltage (V)	
		Date	

Ancillary Device :	Connected		Not connected		Not connected	
			but connectable			
Correct indication of ancillary device		(yes/no)				
Conveyor Speed (m/min):	minimum		maximum		other	

Test object ID	Length = unit=	Width = unit=	Height = unit=	Initial zeroing (Ready condition)	yes no
----------------	-------------------	------------------	-------------------	--------------------------------------	-----------

AC surge voltage at 90°

Instrument

Connection	Mode	Results						
Test conditions		L	Indication W	H	SF > d Y/N	SF * Y/N	Result PASS/FAIL	Comment
No Surge (reference condition)								
Positive	L-L							
Negative	L-L							
Positive	N-PE							
Negative	N-PE							
Positive	L-PE							
Negative	L-PE							
Positive	L2-PE							
Negative	L2-PE							

Ancillary Devices

Mode	Results						
	L	Indication W	H	SF > d Y/N	SF * Y/N	Result PASS/FAIL	Comment
No Surge (reference condition)							
Positive	L-L						
Negative	L-L						
Positive	N-PE						
Negative	N-PE						
Positive	L-PE						
Negative	L-PE						
Positive	L2-PE						
Negative	L2-PE						

1. SF * - Significant fault detected and acted upon.
2. L-L - Line to Line Surge
3. N-PE - Neutral to Protective Earth Surge
4. L-E - Line to Protective Earth Surge
5. L2-E - Line2 to Protective Earth Surge

Remarks:

--

RESULT: PASS ☐FAIL ☐

2.11 Electrical surges (A.3.4)**2.11.1 Surges on AC mains****2.11.1.3 AC surge voltage at 180° (A.3.4.1)**

Type/ application #:		At start	At end
Instrument ID:		Temp (°C)	
Scale Interval (d):		RH (%)	
Conversion Factor (F)		Time	
		Nominal Voltage (V)	
		Date	

Ancillary Device :	Connected	<input type="checkbox"/>	Not connected	<input type="checkbox"/>	Not connected	<input type="checkbox"/>
			but connectable			
Correct indication of ancillary device	<input type="checkbox"/>	(yes/no)				
Conveyor Speed (m/min):	minimum	<input type="checkbox"/>	maximum	<input type="checkbox"/>	other	<input type="checkbox"/>

Test object ID	Length =	Width =	Height =	Initial zeroing	yes
	unit=	unit=	unit=	(Ready condition)	no

AC surge voltage at 180°**Instrument**

Connection	Mode	Results						
Test conditions		L	Indication W	H	SF > d Y/N	SF * Y/N	Result PASS/FAIL	Comment
No Surge (reference condition)								
Positive	L-L							
Negative	L-L							
Positive	N-PE							
Negative	N-PE							
Positive	L-PE							
Negative	L-PE							
Positive	L2-PE							
Negative	L2-PE							

Ancillary Devices

Mode	Results						
	L	Indication W	H	SF > d Y/N	SF * Y/N	Result PASS/FAIL	Comment
No Surge (reference condition)							
Positive	L-L						
Negative	L-L						
Positive	N-PE						
Negative	N-PE						
Positive	L-PE						
Negative	L-PE						
Positive	L2-PE						
Negative	L2-PE						

1. SF * - Significant fault detected and acted upon.
2. L-L - Line to Line Surge
3. N-PE - Neutral to Protective Earth Surge
4. L-E - Line to Protective Earth Surge
5. L2-E - Line2 to Protective Earth Surge

Remarks:

--

RESULT: PASS ☐FAIL ☐

2.11 Electrical surges (A.3.4)**2.11.1 Surges on AC mains****2.11.1.4 AC surge voltage at 270° (A.3.4.1)**

Type/ application #:
Instrument ID:
Scale Interval (d):
Conversion Factor (F)

At start At end
Temp (°C)
RH (%)
Time
Nominal Voltage (V)
Date

Ancillary Device : Connected Not connected but connectable Not connected

Correct indication of ancillary device (yes/no)

Conveyor Speed (m/min): minimum maximum other

Test object ID	Length = unit=	Width = unit=	Height = unit=	Initial zeroing (Ready condition)	yes no
----------------	-------------------	------------------	-------------------	--------------------------------------	-----------

AC surge voltage at 270°**Instrument**

Connection	Mode	Indication			Results			Comment
Test conditions		L	W	H	SF > d Y/N	SF * Y/N	Result PASS/FAIL	
No Surge (reference condition)								
Positive	L-L							
Negative	L-L							
Positive	N-PE							
Negative	N-PE							
Positive	L-PE							
Negative	L-PE							
Positive	L2-PE							
Negative	L2-PE							

Ancillary Devices

Connection	Mode	Indication			Results			Comment
Test conditions		L	W	H	SF > d Y/N	SF * Y/N	Result PASS/FAIL	
No Surge (reference condition)								
Positive	L-L							
Negative	L-L							
Positive	N-PE							
Negative	N-PE							
Positive	L-PE							
Negative	L-PE							
Positive	L2-PE							
Negative	L2-PE							

1. SF * - Significant fault detected and acted upon.
2. L-L - Line to Line Surge
3. N-PE - Neutral to Protective Earth Surge
4. L-E - Line to Protective Earth Surge
5. L2-E - Line2 to Protective Earth Surge

Remarks:

RESULT: PASS

FAIL

2.12.1 Radiated RF electromagnetic fields (A.3.5.1)

Conversion Factor (F)

[illegible]

	At start	At end
Temp (°C)		
RH (%)		
Time		
Voltage (V)		
Date		

Not connected

other

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Test object ID	Length =	Width =	Height =	Initial zeroing (Ready condition)	yes
	unit=	unit=	unit=		no

Disturbance				Results						
Antenna	Frequency range	Antenna polarisation	Facing EUT	Indication			SF > d Y/N	SF * Y/N	Result PASS/FAIL	Comments
				L	W	H				
Without disturbance										
		Vertical	Front							
			Right							
			Left							
			Rear							
Without disturbance										
		Horizontal	Front							
			Right							
			Left							
			Rear							

NOTES: 1. SF * - Significant fault detected and acted upon.

Modulation 80 % Am, 1 KHz sine wave

Remarks:

Remarks:

PASS

FAIL

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2.12 Immunity to RF Electromagnetic fields (A.3.5)

2.12.2 Conducted RF electromagnetic fields (A.3.5.2)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

	At start	At end
Temp (°C)		
RH (%)		
Time		
Nominal Voltage (V)		
Date		

Ancillary Device : Connected Not connected Not connected
 but connectable

Correct indication of ancillary device (yes/no)Conveyor Speed (m/min): minimum maximum other Rate of sweep:

Test object ID	Length = <input type="text"/> unit= <input type="text"/>	Width = <input type="text"/> unit= <input type="text"/>	Height = <input type="text"/> unit= <input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
----------------	---	--	---	--------------------------------------	----------------------	-----------

Disturbance				Results						
Antenna	Frequency range	Antenna polarisation	Facing EUT	Indication			SF > d Y/N	SF * Y/N	Result PASS/FAIL	Comments
				L	W	H				
Without disturbance										
		Vertical	Front							
			Right							
			Left							
			Rear							
Without disturbance										
		Horizontal	Front							
			Right							
			Left							
			Rear							

NOTES: 1. SF * - Significant fault detected and acted upon.

Frequency range : 0.15 MHz to 80 MHz

Field strength: 10 V/m

Modulation 80 % Am, 1 KHz sine wave

Remarks:

RESULT:

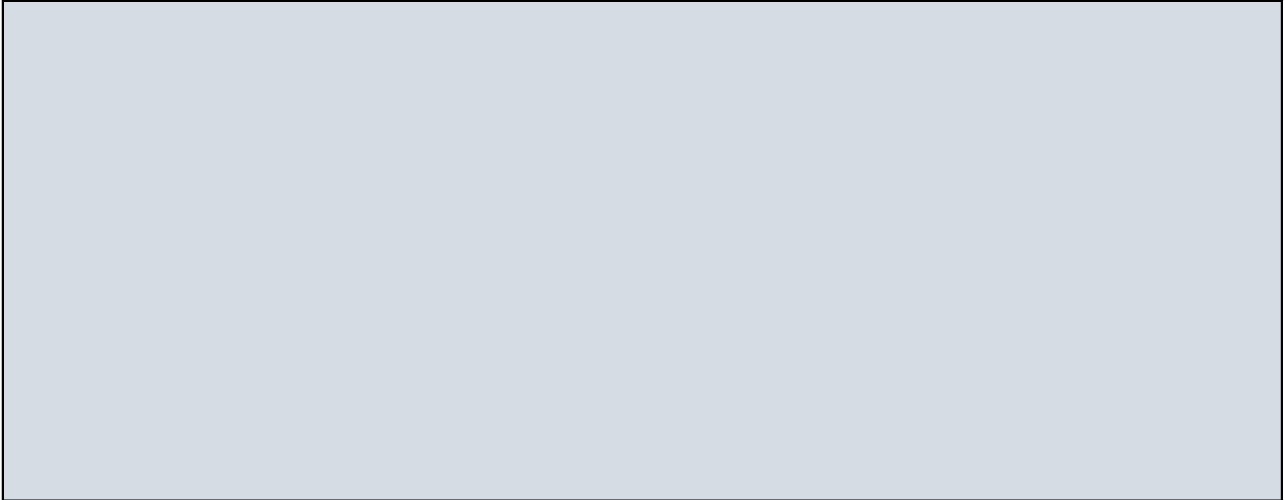
PASS

FAIL

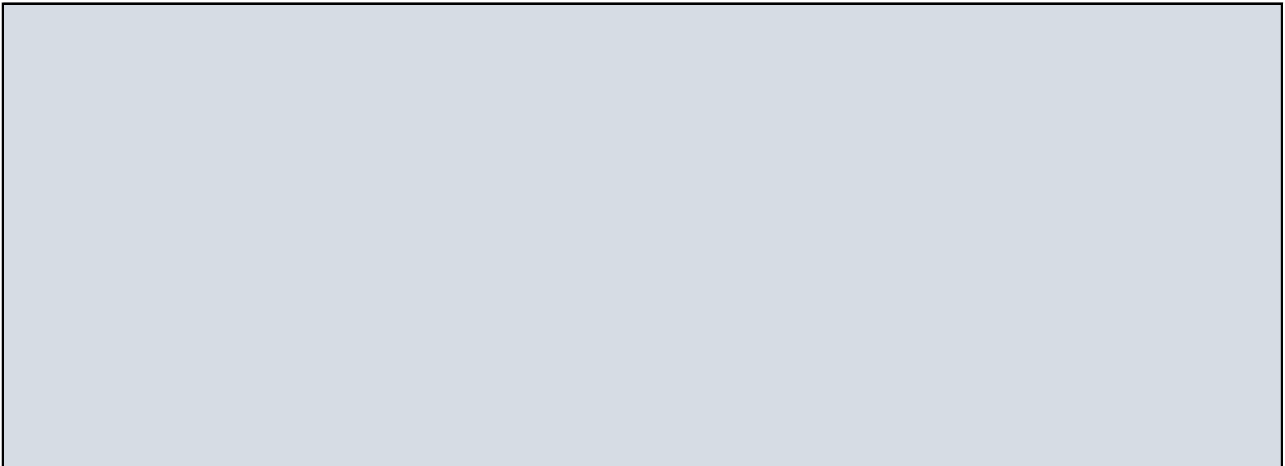
2.12 Immunity to RF Electromagnetic fields (A.3.5)

2.12.3 Additional Sheet

1. Description of the set up of the EUT, eg. by photos ,sketches etc.



2. Additional Remarks



2.13 Ambient light (A.4.1)**2.13.1 Reference conditions 200 lx to 500 lx (A.4.1)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Time

Light (lx)

Date

At start

At end

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial Zeroing (yes/no)	L (units)	ΔL	W (units)	ΔW	H (units)	ΔH	MPE	Pass/Fail
1									
2									
3									
4									
5									

Remarks**RESULT:****PASS****FAIL**

2.13 Ambient light (A.4.1)**2.13.2 Ambient light 100 lx (A.4.1)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

	At start	At end
Temp (°C)		
RH (%)		
Time		
Light (lx)		
Date		

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial Zeroing (yes/no)	L (units)	ΔL	W (units)	ΔW	H (units)	ΔH	MPE	Pass/Fail
1									
2									
3									
4									
5									

Remarks**RESULT:****PASS****FAIL**

2.13 Ambient light (A.4.1)**2.13.3 Ambient light 1000 lx to 1500 lx (A.4.1)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Time

Light (lx)

Date

At start

At end

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial Zeroing (yes/no)	L (units)	ΔL	W (units)	ΔW	H (units)	ΔH	MPE	Pass/Fail
1									
2									
3									
4									
5									

Remarks**RESULT:****PASS****FAIL**

2.13 Ambient light (A.4.1)**2.13.4 Ambient light, other lx (A.4.1)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Time

Light (lx)

Date

At start

At end

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

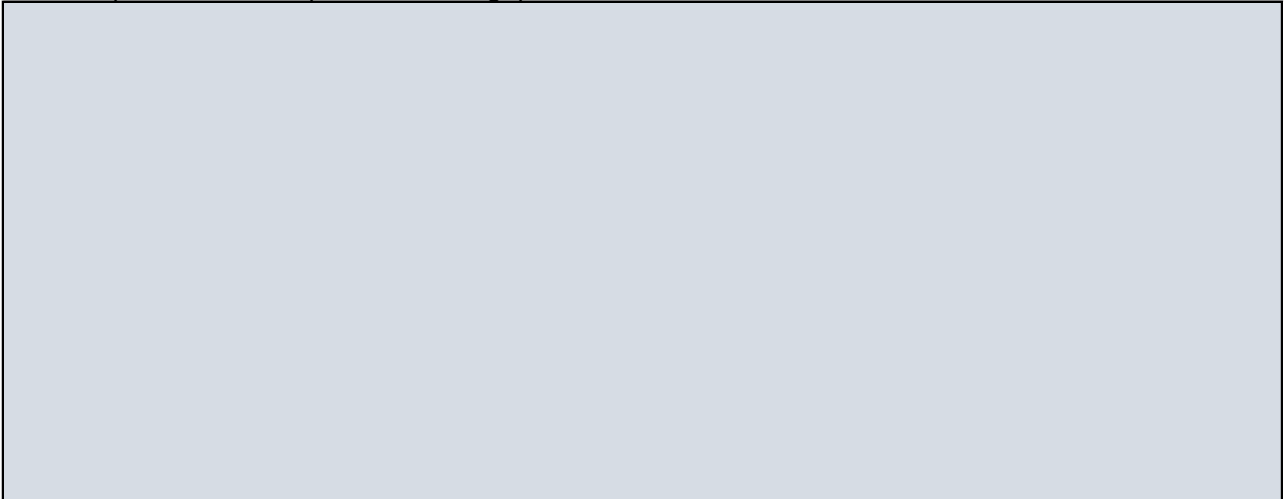
Test Object ID	Initial Zeroing (yes/no)	L (units)	ΔL	W (units)	ΔW	H (units)	ΔH	MPE	Pass/Fail
1									
2									
3									
4									
5									

Remarks**RESULT:****PASS****FAIL**

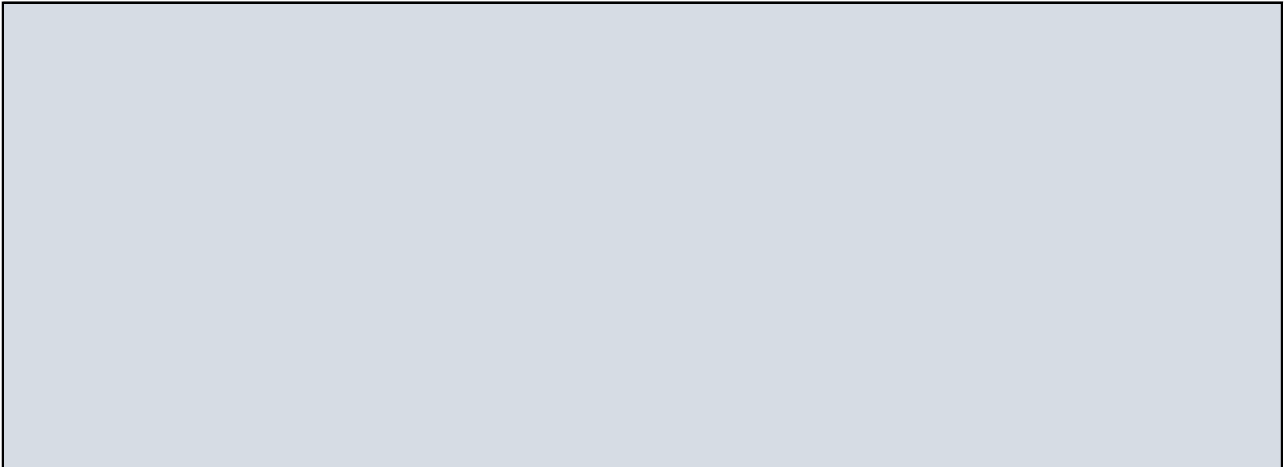
2.13 Ambient light (A.4.1)

2.13.5 Additional sheet (A.4.1)

1. Description of the set up of the EUT, eg. photos or sketches



2. Additional remarks



2.14 Acoustics (A.4.2)**2.14.2 100 dB sound level (dB) (A.4.2)**

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Time

Sound (dB)

Date

At start At end

Ancillary Device :

Connected

☐Not connected
but connectable☐

Not connected

☐

Correct indication of ancillary device

☐

(yes/no)

Conveyor Speed (m/min):

minimum

☐

maximum

☐

other

☐

Test Object ID	Length (units)	Width (units)	Height (units)
1			
2			
3			
4			
5			

Test Object ID	Initial Zeroing (yes/no)	L (units)	ΔL	W (units)	ΔW	H (units)	ΔH	MPE	Pass/Fail
1									
2									
3									
4									
5									

Remarks

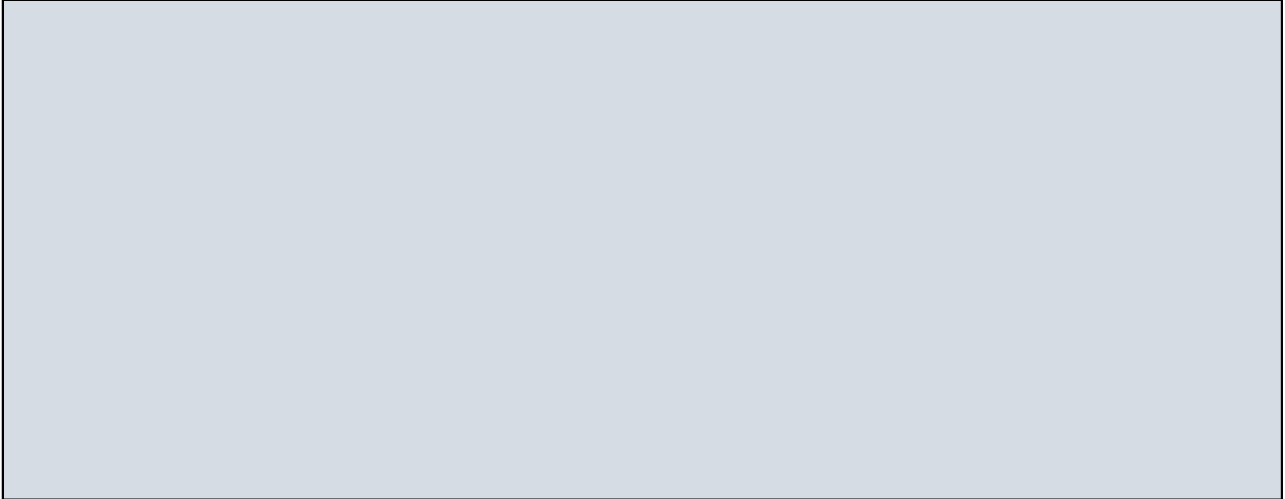
--

RESULT:**PASS**☐**FAIL**☐

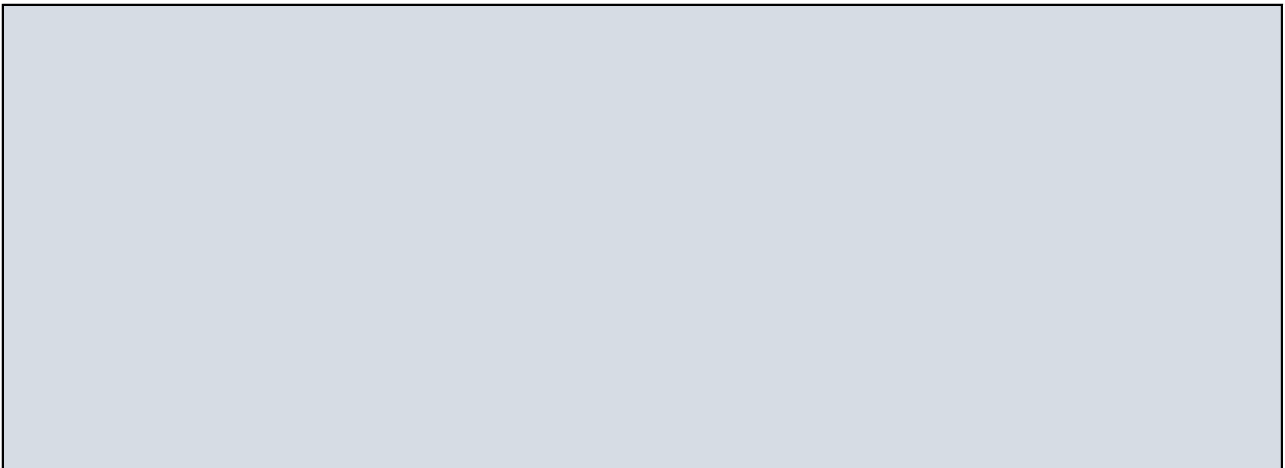
2.14 Acoustic Test (A.4.2)

2.14.3 Additional Sheet

1. Description of the set up of the EUT, eg. photos or sketches



2. Additional remarks



2.17 Non uniform surface colour (A.1.6)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

At start

At end

Temp (°C)

RH (%)

Time

Date

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

 (yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test object ID	Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes	no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes	no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes	no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes	no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes	no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Remarks

RESULT:

PASS

FAIL

2.19 Surface reflectivity and absorption of sound (A.1.6)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

At start At end

Temp (°C)

RH (%)

Time

Date

Ancillary Device :

Connected

☐Not connected
but connectable☐

Not connected

☐

Correct indication of ancillary device

☐

(yes/no)

Conveyor Speed (m/min):

minimum

☐

maximum

☐

other

☐

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Remarks

--

RESULT:

PASS

☐

FAIL

☐

2.20 Surface reflectivity and absorption of light (A.1.6)

Observer: _____
 Type/ application #: _____
 Instrument ID: _____
 Scale Interval (d): _____
 Conversion Factor (F) _____

	At start	At end
Temp (°C)		
RH (%)		
Time		
Date		

Ancillary Device : Connected ☐ Not connected but connectable ☐ Not connected ☐

Correct indication of ancillary device ☐ (yes/no)

Conveyor Speed (m/min): minimum ☐ maximum ☐ other ☐

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Remarks

RESULT: PASS ☐ FAIL ☐

2.21 Uniformity of density (A.1.6)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

Temp (°C)

RH (%)

Time

Date

At start

At end

Ancillary Device :

Connected

☐Not connected
but connectable☐

Not connected

☐

Correct indication of ancillary device

☐

(yes/no)

Conveyor Speed (m/min):

minimum

☐

maximum

☐

other

☐

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Remarks

RESULT:

PASS

☐

FAIL

☐

2.22 Transparency (A.1.6)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

At start At end

Temp (°C)

RH (%)

Time

Date

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test object ID		Length =		Width =		Height =		Initial zeroing		yes
		unit=		unit=		unit=		(Ready condition)		no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID		Length =		Width =		Height =		Initial zeroing		yes
		unit=		unit=		unit=		(Ready condition)		no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID		Length =		Width =		Height =		Initial zeroing		yes
		unit=		unit=		unit=		(Ready condition)		no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID		Length =		Width =		Height =		Initial zeroing		yes
		unit=		unit=		unit=		(Ready condition)		no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID		Length =		Width =		Height =		Initial zeroing		yes
		unit=		unit=		unit=		(Ready condition)		no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Remarks

RESULT:

PASS

FAIL

2.23 Surface roughness (A.1.6)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

At start At end

Temp (°C)

RH (%)

Time

Date

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Remarks

--

RESULT:

PASS

FAIL

2.24 Protrusions on surface (A.1.6)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

At start At end

Temp (°C)

RH (%)

Time

Date

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

(yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="text"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Remarks

RESULT:

PASS

FAIL

2.25 Orientation and position (A.1.6)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

At start At end

Temp (°C)

RH (%)

Time

Date

Ancillary Device :

Connected

Not connected
but connectable

Not connected

Correct indication of ancillary device

 (yes/no)

Conveyor Speed (m/min):

minimum

maximum

other

Test object ID		Length =		Width =		Height =		Initial zeroing		yes
		unit=		unit=		unit=		(Ready condition)		no
Run	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
(units)										
1										
2										
3										

Test object ID		Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID		Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID		Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID		Length =		Width =		Height =		Initial zeroing		yes
		unit=		unit=		unit=		(Ready condition)		no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Remarks

RESULT:

PASS

FAIL

2.26 Test for speed of relative movement (A.1.6)

2.26.1 Minimum speed (A.1.6)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F):

Temp (°C) At start At end

RH (%)

Time

Date

Ancillary Device : ☐ Connected ☐ Not connected ☐ Not connected but connectable ☐

Correct indication of ancillary device ☐ (yes/no)

Conveyor Speed (m/min): minimum maximum other

Test object ID		Length =		Width =		Height =		Initial zeroing		yes
		unit=		unit=		unit=		(Ready condition)		no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID		Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID		Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID		Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID		Length = unit=		Width = unit=		Height = unit=		Initial zeroing (Ready condition)		yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Remarks

RESULT:

PASS

FAIL

2.26 Test for speed of relative movement (A.1.6)

2.26.2 Maximum speed (A.1.6)

Observer:

Type/ application #:

Instrument ID:

Scale Interval (d):

Conversion Factor (F)

	At start	At end
Temp (°C)		
RH (%)		
Time		
Date		

Ancillary Device : Connected ☐ Not connected ☐ Not connected ☐

Correct indication of ancillary device ☐ (yes/no)

Conveyor Speed (m/min): minimum ☐ maximum ☐ other ☐

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="checkbox"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="checkbox"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="checkbox"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="checkbox"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Test object ID	<input type="text"/>	Length = unit=	<input type="text"/>	Width = unit=	<input type="text"/>	Height = unit=	<input type="text"/>	Initial zeroing (Ready condition)	<input type="checkbox"/>	yes no
Run (units)	L	ΔL	W	ΔW	H	ΔH	MPE	Pass/Fail		
1										
2										
3										

Remarks

RESULT:

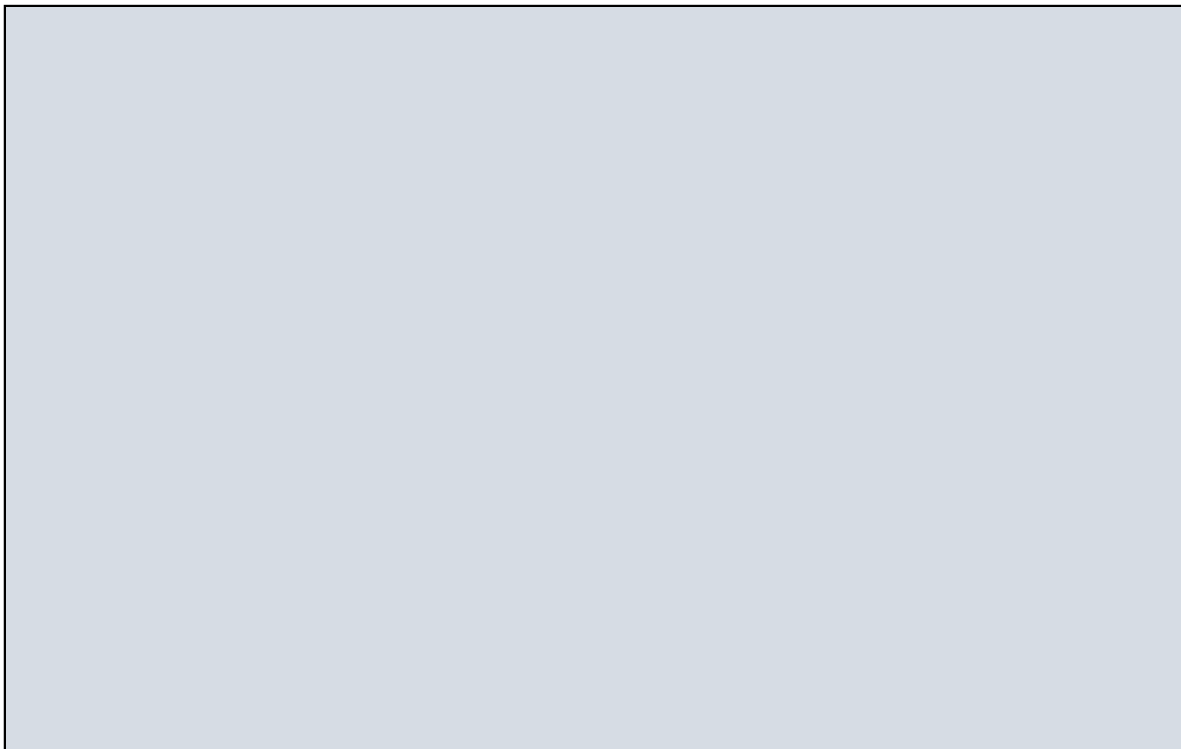
PASS

FAIL

2.27 Examination of the construction of instrument (R 126-1, clause 5.1.2)

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 certificate of approval or OIML certificate of conformity.

This may include a pictures of the complete instrument, a description of its main components and any remark which could be useful for initial or subsequent verifications of individual instruments built according to the pattern. It may also include references to the manufacturer's description.

**RESULT:****PASS**☐**FAIL**☐