

Result of online voting and comments

TC 7/SC 5: Dimensional measuring instruments

p 1: Revision of R 129: Multi-dimensional measuring instruments

PG phase: 4 CD circulated to PG for vote and comment

Deadline: 2020-03-20

Voted Yes: 10

Voted No: 3

Abstain: 0

Country	Action	Comments
AUSTRALIA	Voted Yes on 2020-03-18	
CANADA	Voted Yes on 2020-03-12	
DENMARK	Commented on 2020-03-10	Yes
FRANCE	Voted Yes on 2020-03-20	Yes
GERMANY	Voted Yes on 2020-02-28	Yes
IRAN	Voted Yes on 2020-03-18	Yes
JAPAN	Voted Yes on 2020-03-18	Yes
NETHERLANDS	Voted No on 2020-03-13	Yes
NORWAY	Voted No on 2020-03-18	Yes
P.R. CHINA	Voted Yes on 2020-03-20	
SERBIA	Voted Yes on 2020-03-16	
SOUTH AFRICA	Voted Yes on 2020-03-20	
SPAIN	Commented on 2020-03-19	Yes
UNITED KINGDOM	Voted Yes on 2020-02-26	
UNITED STATES	Voted No on 2020-03-20	Yes

Template for comments and convener's observations

Date:2020-03-25

Document: TC7_SC5_P1_N055

Project: TC 7/SC 5/p 1

Country Code ¹	Part	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment ²	Comments	Proposed change	Convener's responses
0001 NL					We believe that there are still some rough edges in the document that needs to be solved before the draft versions are approved. See below	Solve the remaining issues.	Thank you for your feedback.
0002 US-1		all		gen	<p>The US has voted “no” on the 4CD of R129.</p> <p>At the time of submitting this comments document, the voting on the 4CD was 10 “yes” and 2 “no” ... which means that (technically) the 4CD would pass.</p> <p>However, we have reviewed the general/technical comments submitted by many other countries (especially those submitted by Netherlands, Norway, Germany, and France), and we feel that <u>many</u> issues still need to be resolved by the Project Group before R129 goes before the CIML as a preliminary ballot.</p> <p>The US plans to assist with this improvement effort.</p>		Thank you for your feedback.
0003 FR 1	1	2.1.1.1		ed	The definition of length could be clarified in order to distinguish it from width and height	Please replace the definition for “the largest linear measured dimension of the base, usually horizontal, of a three-dimensional object”	Not accepted. The current definitions of length, width and height allows for flexibility in the way the objects are measured. The proposed definition makes it very prescriptive and would place unnecessary burden on the manufacturers and users. Also, the definitions are as agreed in the R 129 meeting in May 2019.
0004 FR 2	1	2.1.1.2		ed	The definition of width could be clarified in order to distinguish it from length and height	Please replace the definition for “the smallest dimension of the base, usually horizontal, of a three-dimensional object”	Not accepted. Please see response to 002 FR 1.
0005 FR 3	1	2.1.1.3		ed	The definition of height could be clarified in order to distinguish it from length and width	Please replace the definition for, “the largest linear measured dimension that is perpendicular of the base, usually horizontal, of a three-dimensional object”	Not accepted. Please see response to 002 FR 1.
0006 FR 4	1	2.2.4		ed	“ = L x W x H” could be modified by “ Dim Vol = L x W x H to be more clear	Please add “Dim Vol” before “ = L x W x H” to have : “ Dim Vol = L x W x H”	Accepted. 2.2.4 amended to read “DV = L x W x H”

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0007 NL	1	2.5	-	ed	Title says "other definitions "but the contents refer only to D 31 (software)	Change to Software Terms	Accepted. Document amended.
0008 NL	1	4.1.1	-	ed	Abbreviation not in line with definition in 2.2.6	Change (min) in the header of the table to (Min)	Accepted. Document amended.
0009 DK	1	4.1.1	-	Te	<p>It should not be possible to make instruments with a scale interval less than 2 cm, mainly because nobody needs to measure with a precision better than that to be able to set the transport tariff, but also because of the requirements to the test objects.</p> <p>In Denmark we see that the majority of instruments has a scale interval of 0.5 cm and a Max of more than 200 cm.</p> <p>In the field it's almost impossible to calibrate, transport and use test objects that full fills the requirements for such instruments.</p> <p>We need to change this, and several proposals is given where proposal 1 has the highest priority.</p>	<p>Proposal 1: Change table 2 so that it only comprises two possibilities: $2\text{ cm} \leq d \leq 10\text{ cm}$ 10d and $10\text{ cm} < d$ 20d</p> <p>Proposal 2: The smallest scale interval is 1 cm and the mpe is changed for instruments with a scale interval less than 2 cm.</p> <p>Change table 2 so that it has three possibilities: $1\text{ cm} \leq d < 2\text{ cm}$ 10d and $2\text{ cm} \leq d < 10\text{ cm}$ 20d and $10\text{ cm} < d$ 50d</p> <p>Change the text in 4.1.2 so that the mpe for instruments with a scale interval $d < 2\text{ cm} = \pm 2.0d$ and $d \geq 2\text{ cm} = \pm 1.0d$</p> <p>Proposal 3: Change the text in 4.1.2 so that the mpe for instruments with a scale interval $d < 2\text{ cm} = \pm 2\text{ cm}$ and $d \geq 2\text{ cm} = \pm 1.0d$</p> <p>Proposal 4: Change the text in 4.1.2 so that the mpe for instruments with a scale interval $d < 2\text{ cm} = \pm 1\text{ cm}$ and $d \geq 2\text{ cm} = \pm 1.0d$</p> <p>The text in 4.1.3 shall be changed accordingly to the above.</p>	Not accepted. This would be a fundamental and extraordinarily far-reaching change to the Recommendation. There are other economies where instruments with scale interval less than 2 cm have been approved and are in use. National bodies may restrict which scale interval sizes are permitted to be used in their countries.

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0010 IR 01	1	4.1.4		te	In this case, when we use another indicator, it may be seen a small difference between two indications because of fluctuations in their voltage and so the indicators may round their indications.		Not accepted. Any discrepancies between the indicators will lead to confusion, as to which one is the correct indication that is used for trade purposes.
0011 IR 04	1	4.1.4		te	Sometimes in a multi-dimensional machine, there is a sensor for measuring temperature. In this situation, sometime the value indicated by sensor differs from the value indicated by pc (when the sensor is attached to a pc for storing and printing). Because when we use a connector cable, this cable has a resistance and can affect the Temperature values and so the dimension. Since dimensions depends directly on temperature, we should consider this matter.	Two indicators can show different value and we should consider this matter.	Not accepted. See response to 007 IR 01.
0012 DK	1	4.1.6	-	Ed	The measured dimensions which are rounded, should be rounded to the nearest applicable scale interval	Change the text by adding the word “to” between “rounded” and “the nearest applicable scale interval”	Accepted. Document amended.
0013 IR 02	1	4.1.7		te	Since many multi-dimensional instruments are sensitive to vibration, it's better to specify a limit for vibration in this stage.		Not accepted. The recommendation provides for suitability of construction and use. This means that if the instrument is used in such a way that the vibrations are causing issues with the performance, then the instruments is probably not installed or used properly.
0014 NO	1	4.1.7	(d)	Tech	The word “nominal dimension “ is difficult to interpret of practical reasons	Add definition of nominal dimension to clause 2. Proposal for the definition: “true value” instead of nominal	Not accepted. Nominal has a certain meaning as per VIM and the document includes general terms included in VIM and VIML.
0015 NL	1	4.1.7	(d)	Tech	What is meant with “nominal dimensions of the test object”? Rounding is not defined in OIML V1 or V2 therefore terminology from Wikipedia is proposed. (https://en.wikipedia.org/wiki/Rounding#Round_half_away_from_zero)	Add definition of nominal dimension to clause 2. Proposal for the definition: “Known dimensions rounded to the scale interval of the instrument using the round half away from zero method.”	Not accepted. See response to 0014 NO above. It is not clear as to the need for defining rounding.

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					Instead of “round half away from zero”, “round half up” can also be used. This gives the same result for positive values.		
0016 DK	1	4.1.7	D	Te	It isn't clear what the difference is between the “known dimensions” and the “nominal dimensions”, and why there are two possibilities of calculation mentioned when the paragraph handles scale interval of 1/5d or less.	Please change the text so that it is impossible to misunderstand the meaning. It might be necessary to add explanation under general terms.	Not accepted. The paragraph is applicable for two scenarios. One where the instruments equipped with extended indication device or mode which displays with a scale interval of 1/5d or less and this feature is used during type evaluation or verification. The other scenario provides calculation for error of indication, where the extended indication device or mode is not used or does not exist.
0017 IR 03	1	5.1.2		te	Instead of “normal condition of use” it is better to specify this condition.	“manufacturer proposed conditions” or “conditions specified in 4.2.1”	Not accepted. The normal conditions of use could vary between each instrument and its specified use. This does include rated operating conditions along with some specific requirements related to the intended use of the instrument.
0018 NO	1	5.1.6	a)	Tech	We mean that the tare can be either or both subtractive or additive tare.	a)The tare function shall only operate subtractive or additive	Not accepted. We do not see the rationale behind introducing this concept for multidimensional measuring instruments (MDMI). Whilst this makes sense for weighing instruments, even with weighing instruments this technology is slowly becoming obsolete.
0019 NL	1	5.1.6	a)	Tech	The dimensional offset or tare device can be operated both subtractive or additive	a)The tare function dimensional offset shall only operate subtractive or additive	Not accepted.

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							Please see convener's response for 0018 NO.
0020 NO	1	5.1.6	b)	Tech	This requirement is not reasonable. It must be allowed to measure the tare with higher resolution than d. Many instruments are equipped for instance with internal resolutions, which is 1/10d, or 1/5d. This will give more accurate measurement for tare.	The value of the tare scale interval shall be the same as the scale interval of the respective axis and range. For instrument with internal higher resolution than d (for example 1/5d or 1 /10 d), it is acceptable to use tare with higher resolution.	Not accepted. The instrument may have a higher resolution than d, but the scale interval would still be d and the tare scale interval should be the same as the scale interval of the respective axis.
0021 NO	1	5.2.1	a)	Tech	If the instrument is equipped with an alibi (as described in 5.2.1.b), this device may be used instead of the indicator or printer.	Please add: • if the instrument is equipped with an alibi (as described in 5.2.1.b), this device may be used instead of the indicator or printer.	Not accepted. There needs to be way for the indications to be still read. A transmitting/storing device a described in 5.2.1 (b) without the mandatory requirements in 5.2.1 (a) may not allow reading the measurement result.
0022 JP1	1	5.2.1	f)	te	Does the function for holding an indication used for a bathroom scale, as an example, meet the requirement of the <u>test mode</u> explained as "the indications long enough"?	This is a question. No change is requested.	It would be hard to define what an acceptable amount is for something persisting long enough. It should be up to the testing facility/tester. As 5.2.1 (f) specifies, it must be easily read by an observer.
0023 NO	1	5.2.1	h) second paragraph	Tech	We mean that displaying of the indication with scale interval smaller than d, for a period of 5 s is very short. This function is very useful during verification or type approval testing. We wish to extend this period to 10s instead of 5s	For a period not exceeding 10s after a manual command by the operator or until the next measurement.	Accepted. Document amended.
0024 NL	1	5.2.1	h) second paragraph	Tech	Displaying of the indication with scale interval smaller than d, for a period of 5 s is very short. This function is very useful during verification or type approval testing. We wish to extend this period to 10s instead of 5s	for a period not exceeding 10s after a manual command by the operator or until the next measurement.	See response for 0023 NO, above.
0025 JP2	1	5.2.1	i)	te	This item limits printing / data transmission when the <u>extended indication device</u> is active. However, the technical requirement for this device is not found in this draft.	Propose adding a statement or a technical requirement about the extended indication device as it is mentioned in 4.4.3 of R 76-1: 2006 (cited below). <i>4.4.3 Extended indicating devices (in R 76-1:2006)</i>	Not accepted.

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						<p><i>An extended indicating device shall not be used on an instrument with a differentiated scale division. When an instrument is fitted with an extended indicating device, displaying the indication with a scale interval smaller than e shall be possible only:</i></p> <p><i>* during pressing a key; or</i></p> <p><i>* for a period not exceeding 5 seconds after a manual command.</i></p> <p><i>In any case printing shall not be possible while the extended indicating device is in operation.</i></p>	Not sure what is the issue being raised here. The requirements are provided in 5.2.1 (h) and (i) under clause 5 - Technical Requirements.
0026 FR 5	1	5.2.1.b		ed	Coma could be interpreted like a “or” or a “and”. The requirement could be readable as : An instrument may also have a device to transmit or store and preserve measurement ... Or An instrument may also have a device to transmit and store and preserve measurement ...	Please, change the coma by a “and” in the sentence : “An instrument may also have a device to transmit and store and preserve measurement”	Not accepted. The reason for the ‘comma’ is so that it implies ‘and’ or ‘or’. Introduction of ‘and’ or ‘or’ makes the requirements too prescriptive.
0027 IR 05	1	5.2.10		te	It’s better to determine duration for this. For example, the data should be available up to 2 years after test.		Not accepted. As long as the indications are being made available to customers, we do not see the need for specifying a 2 year period for the data to be made available. If there is a need within individual economies for such a provision, this can very well be mandated by the economy in their adoption of this international recommendation.
0028 DK	1	5.2.4	C	Ed	The last two lines below (c) might be proper English, but it is difficult to read/understand.	Please change the text to: The requirements in (c) do not apply when the instrument is equipped with a test mode that provides the associated scale interval for each measured dimension.	Accepted. Document amended.

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0029 DK	1	5.2.5	-	Te	It should not be possible to store, transmit or print any value in any other form than displayed on the instrument in normal conditions of use. If the instrument is equipped with an extended indication it should not be possible to store, transmit or print this too. The text in 5.2.5 should be moved to 5.2.9	The text has to be changed such that it is 100% clear, that only the reading on the display in normal conditions of use can be stored, transmitted or printed.	Not accepted. 5.2.5 is regarding the requirements for decimal numbers. We do not see the applicability of the feedback provided to clause 5.2.5. However, if this is request for a new requirement stating that all indicated, stored, printed and transmitted measurements should match: The reason for this requirement is so that the instrument does not facilitate fraud. But, this information is already provided in clause 5.1. Do not see the need for stating this explicitly.
0030 FR 6	1	5.2.6		ed	Coma could be interpreted like a “or” or a “and”. The requirement could be readable as : Displaying and storing and transmitting or printing ... Or Displaying or storing or transmitting or printing...	Please, change the coma by a “and” in the sentence : “Displaying and storing and transmitting or printing”	Not accepted. Please see response for 0026 FR5.
0031 NL	1	5.2.6	(b)	ed	Sentence is the last item in the list	Delete the word “or”. Replace “;” with “.”	Accepted. Document amended.
0032 DK	1	5.2.6	B	Te	The limit of maximum dimension indicated shall only be the maximum dimension, not plus 9d.	Delete the text “plus 9d; or”	Not accepted. This requirement has been carried on from the current in-force version of the recommendation. We do not want to delete this requirements without adequate information to avoid unintended consequences.
0033 NL	1	5.2.7	-	Ed	Abbreviation not in line with definition in 2.2.6	Change min to Min Change min1 to Min1 Change min2 to Min2	Accepted. Document amended.

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0034 NL	1	5.2.7	-	Ed	Abbreviation not in line with definition in 2.2.5	Change max to Max Change maxr to Maxr Change min2 to Min2	Accepted. Document amended.
0035 NL	1	5.3.1	-	ed	Abbreviation not in line with definition in 2.2.6	Change min =to Min =	Accepted. Document amended.
0036 NL	1	5.3.1	-	ed	Abbreviation not in line with definition in 2.2.5	Change max = to Max =	Accepted. Document amended.
0037 NL	1	5.4.2	3 rd paragraph	ed	The sentence / paragraph is followed by a list. This list is not introduced.	Add a sentence: "For sealing by electronic, software or cryptographic means the following requirements apply:"	Accepted. Document amended.
0038 NO	1	5.6.1		Tech	Acting upon significant faults: the second sentence "For automatic instruments the instrument shall be made inoperative automatically" This is unreasonable requirement. what other situation could occur which is not covered by previous senesce. We suggest deleting this last sentence. Because the automatic instrument in such cases gives error message, does not give measurement results, does not display measuring results etc. This gives possibility to the operator for taking action.	Please delete this sentence "For automatic instruments the instrument shall be made inoperative automatically"	Not accepted. Automatic instruments are not manned and as such these instruments have to be made inoperative automatically, so that operator is forced to take action. But, if the instrument just gives error message but does not shut down, it would be hard for an operator to go through the records to find out when and why the instrument did not provide a measurement result.
0039 NL	1	5.16		Tech	The word Tare is not the best choice here. It suggests that you have some net calculation: N=B-T and that is not the case. Tare is used because the a part of the object is not relevant (eg. A pallet, if you only want to measure what is on the pallet. If the pallet is relevant it is included in the height). The tare device is more an offset. In the US HB44 tare will be replaced with "dimensional offset". Should we do the same?	Replace tare with dimensional offset	Not accepted. Tare is a well-known term and it is better to retain the term that is in common use.
0040 DE	1	6		ge	why is this part not as discussed in the software subgroup (see TC7_SC5_P1_N037-Draft_software_requirements_v1.6-clean)		All of the additions in relation to the software requirements to the 4 CD have been as disused in the TC7_SC5_P1_N037-Draft_software_requirements_v1.6-clean.

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							The clause numbers were a bit fluid at that stage of developing software requirements, but all the requirements in 4 CD are the same as per the document N037 and any amendments received for N037. For instance, clause 6 in the 4 CD is the same as clause starting from 6.5 in the document N037 that was circulated for feedback.
0041 DE	1	6.2		ed	two verbs in the sentence	It shall be possible to evaluate assess algorithms and functions either by metrological tests, software tests or software examination.	Accepted. Document amended.
0042 DE	1	6.3		ge	add “, parameters, the measurand value and measurement data” in the heading as discussed for the document “TC7_SC5_P1_N037-Draft_software_-requirements_v1.6-clean”		Accepted. Document amended.
0043 NO	1	6.3.3	Second paragraph	Tch	For such instrument, there are many parameters. One thing is what we require here and another thing is how to verify it in the site where the instrument is installed. For type approval testing, this is not big deal, but for initial verification or reverification, this presupposes detail knowledge about the meaning of the parameters. This may require extra tools (PC) with browser for an inspector for viewing of the parameters. The meaning of the most parameters are obvious for an inspector. This is acceptable during type examination, but not during inspection in the field.	Displaying or printing of the current parameter settings shall be possible during type examination process. During verification or inspection, the critical parameter setting needs to be checked as specified in the certificate.	Partially accepted. The document amended to include ‘legally relevant’ in the last sentence. This limits the parameters to those covered by the recommendation. This is a clarification, not a technical change. With regards to changing the wording to provide the split between type examination and verification/inspection, the current wording provides flexibility and if the document is amended as suggested this would introduce prescriptiveness that is not necessary.

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0044 NL	1	6.3.3	second paragraph	Tech	We have received a lot of comments about the requirement that the indication of the current parameter settings shall be possible. This might be interpreted as indicating all parameters and that seems to be unnecessary. We propose to limit this requirements to critical parameters as listed in the Certificate.	Displaying or printing of critical parameter settings that needs to be checked during verification or inspection, as specified in the Certificate, shall be possible.	Partially accepted. Please see convener's response for 0043N0.
0045 DE	1	6.4 - 6.5		ge	add the sub clause "5.5 Protection" as discussed for the document "TC7_SC5_P1_N037-Draft_software_-requirements_v1.6-clean"	5.5 Protection Protection shall comprise appropriate sealing by mechanical, electronic, software (audit trail) and/or cryptographic means, making an intervention evident. The protection measures and the means of verification shall be stated in the certificate.	The information under clause 5.5 has been moved to clause 5.4.2 under 'Sealing'. The document TC7_SC5_P1_N037 document that was circulated for comments had a comment for the conveners regarding moving this requirement outside of software requirements as this is a basic requirement that applies to all instruments.
0046 DE	1	6.5		ed	item <i>see B.6</i> ; I can't find B.6	see B1.8?	Accepted. Document amended.
0047 NL	1	6.5		Tech	The requirement seems to indicate that an audit trail shall never be deleted. This is true, however, the third paragraph indicates that the storage device shall have a minimum capacity after which we believe that existing data may be over written. We propose to make that clear in article 6.5	Add after: The storage device for the audit trail shall have a sufficient capacity to ensure that the information is available for at least three successive verifications or inspections. The following: If the limit of the storage has been reached, the oldest data may be overwritten by the new data.	Accepted. Document amended to provide clarity as suggested. This is more editorial than technical in nature as clarity provided in the document regarding the storage of data and overwriting of the oldest data.
0048 FR 7	1	6.5		ed	There is no information or indication of the organism which had upgraded or modified the software and/or metrological parameter	Please add in the list of the minimum of information the audit trail should contain this requirement "identity of the person (or at least of the smart card used) who accessed the parameter menu"	Not accepted. Do not see the need for including the person's name.
0049 IR 06	1	A.1	Table A.1	te	In some document, we see that the colour of measuring table in dimensional instrument, can affect the dimension, because of temperature colour effect. Here, it is better to consider this effect.	Mark the A.3.3 for mechanical instrument.	Not accepted.

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							Conveners do not see the possibility of a MDMI with mechanical principle of operation being impacted by colour and density.
0050 IR 07	1	A.1	Table A.1	te	Uniformity of density of the object can affect the dimension in mechanical machine. Because its density affects the deformation directly. Therefor for calculating dimensions, we shall consider this deformation value.	Mark the A.3.6 for mechanical instrument.	Not accepted. See response for 0049 IR06.
0051 NO	1	A.3.5		Tech	It can be different interpretation to perform suitable test objects. It is therefore important to list up the relevant test for reflectivity and absorption of light.	We propose to add specific tests: The following examples are arranged in order of best to worse reflective properties: (a) brown cardboard; (b) Light cardboard with reflectivity 70-90% (c) Brown cardboard with reflectivity 50-30	Not accepted. The requirements are too prescriptive. It is up to the testing facilities to come up with appropriate test objects such that they satisfy the requirements.
0052 NL	1	A.3.5		Tech	It can be difficult to define suitable test objects. It is therefore important to list up the relevant test objects for reflectivity and absorption of light test.	We propose to add specific tests: The following examples are arranged in order of best to worse reflective properties: (d) brown cardboard; (e) Light cardboard with reflectivity 70-90% (f) Brown cardboard with reflectivity 50-30	Not accepted. See response to 0051 NO.
0053 NO	1	A.3.5	Third paragraph	Tech	Because of many instrument are sensitive for a mixture of light, shadow on the surface, and degrade performance, it is important to have a clear test requirement. We mean that it must be performed a test.	Suitable test objects and light conditions can be shall be used to determine if the instrument is affected by these characteristics	Not accepted. See response to 0051 NO.
0054 NL	1	A.3.5	Third paragraph	Tech	Because many instrument are sensitive for a mixture of light and shadow on the surface which could degrade performance, it is important to have test this behaviour.	Suitable test objects and light conditions can be shall be used to determine if the instrument is affected by these characteristics	Not accepted. See response to 0051 NO.
0055 NL	1	A.3.9		Tech	We propose to describe the suitable test object and include that the smallest specified protrusion which can be measured by the instrument should be stated in the certificate.	A cubical test object shall be placed on all sides of the test box and tested.	Not accepted. See response to 0051 NO.

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Country Code ¹	Part	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment ²	Comments	Proposed change	Convener's responses
						The smallest specified protrusion which can be measured by the instrument shall be stated in certificate.	
0056 NL	1	A.3.9	Last sentence	Tech	Do we need the smallest protrusion defined or the largest? A protrusion is something that makes the box larger but will be disregarded by the MDMI. Then it is better to know the largest protrusion that still will be disregarded. The smallest is always zero (?).	Therefore the smallest largest specified protrusion which can be measured by the instrument needs to be tested with a suitable test object.	Not accepted. Yes, the smallest protrusions are to be disregarded and the instrument measures protrusion only above a minimum level. So, it is necessary to know the measurement of the smallest protrusion that the instrument can actually measure. What is the point of measuring the largest protrusion, as this would be covered by the range of the instrument anyway?
0057 NO	1	A.3.9	Second paragraph	Tech	Therefore, the smallest specified protrusion, which can be measured by the instrument, needs to be tested with a suitable test object . It should be better described the suitable test object.	A cubical test object shall be placed on all sides of the test box and tested. The smallest specified protrusion, which can be measured by the instrument, shall be stated in certificate.	Not accepted. The suitable test object may vary depending upon the capability of the instrument. Also, 5.3.2 provides for nay specifications or limitations of use relating to the instrument or the objects being measured shall be clearly presented to the operator of the instrument. The protrusions will be covered by this requirement anyway and the convener does not see the need for duplication of requirements.
0058 FR 8	1	Annex B		ed	Question to convener The annex B is mandatory, why do you not put it directly into the corpus		Annex B is mandatory for instruments that employ any of the technologies specified in the Annex. These are not basic requirements applicable to all multidimensional measuring instruments.

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							Hence these mandatory requirements are placed in an Annex separate from the main body of the Recommendation.
0059 IR 08	1	B.1		te	It is better to consider that "the measurement can be affected by interfaces". For example, when we measure the temperature by a sensor and then display these results in a pc, we use a connection cable between sensor and pc. Here, the connection cable effects the temperature values displayed in pc (because of resistance of the cable).	It is recommended to write: "in some cases, the interface can affects the results between two device"	Not accepted. Generally, transmitting of data between peripheral devices should not alter the data being transmitted.
0060 IR 09	1	B.1.8.1		te	The last version of software is enough to be mentioned in certificate.		Not accepted. If the software is legally relevant and is capable of being uploaded onto the instrument, it needs to be identified in the certificate. This does not stop anyone from mentioning the latest version of the software in the certificates.
0061 NL	1 Anne x B	B.1.8.3.1	b.	Tech	If the limit of the storage device has been reached than we believe that after breaking a seal is a bit harsh because that means that a service engineer has to be send to a location and a reverification has to be carried out. We would like to change this that after the limit is reached, the oldest data may be overwritten.	Change the last sentence in: After having reached the limit of the storage for the audit trail, it shall be ensured by technical means that further downloads are impossible without breaking a seal , the oldest data may be overwritten by the new data.	Partially accepted. Document amended to allow the storage devices to be overwritten if the storage limit has been reached. The requirement for breaking the seal for further downloads has been retained. This is to provide the assurance for the safety of the data and it cannot be easily overwritten.
0062 FR 9	2	1.1.2.		ed	Editorial aspect : It should be relevant to follow the order mentioned in OIML D:31	Please, use the same order has the OIML D31. - The manufacturer shall submit all such documentation to allow for a reasonable evaluation of the legally relevant software. This includes : - a description of the legally relevant software and how the requirements are met: o list of software modules that belong to the legally relevant part; o description of the software interfaces of the legally relevant software part and of the commands and data flows via this interface;	Not accepted. Do not see the issue with reordering the points as applicable to this Recommendation.

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						<ul style="list-style-type: none"> - o list of parameters to be protected and description of protection means; - a description of suitable system configuration and minimal required resources (see 6.12.1); - a description of security means of the operating system (password, etc. if applicable); - a description of the (software) sealing method(s); - an overview of the system hardware, e.g. topology block diagram, type of computer(s), type of network, etc. levant functions, this shall also be identified; - a description of the accuracy of the algorithms (e.g. filtering of A/D conversion results, price calculation, rounding algorithms, etc.); - a description of the user interface, menus and dialogues; - the software identification and instructions for obtaining it from an instrument in use; - list of commands of each hardware interface of the measuring instrument/component; - list of durability errors that are detected by the software and if necessary, for understanding, a description of the detecting algorithms. - a description of datasets stored or transmitted; - if detection of significant defects is realized in the software, a list of significant defects that are detected and a description of the detecting algorithm; - fault detection is realized in the software, a list of faults that are detected and a description of the detecting algorithm; - if an audit trail is realized in the software, a description on how to access the audit trail; - the operating manual; 	
0063 FR 10	2	1.2		tech	<p>Instruments submitted for testing.</p> <p>It is mentioned that examination shall be carried out on one or more sample instruments submitted for laboratory tests.</p> <p>We can imagine that we could each test on a different instrument.</p> <p>In this option we cannot have a look of the cumulative effect of the tests.</p>	<p>Type evaluation shall be carried out on one or two units, which represents the definitive type.</p> <p>If all tests cannot be completed in the laboratory, an examination of a sample instrument on site shall also be carried out.</p> <p>The evaluation shall consist of the examination and tests specified in the Recommendation.</p> <p>The applicant shall supply at least one production sample of the instrument for type testing.</p> <p>In order to accelerate the test procedure, the testing laboratory may carry out different tests simultaneously on two units.</p>	<p>Not accepted.</p> <p>The suggested requirement is too prescriptive and places unnecessary burden on the manufacturer.</p> <p>If required individual economies may specify these requirements applicable for type testing in their jurisdiction.</p> <p>We believe that what is proposed is already permitted, but not mandatory.</p>

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						<p>In this case, the testing laboratory shall ensure that all submitted instruments are in conformance to type.</p> <p>All accuracy and influence tests shall be performed on the same unit, but disturbance tests may be carried out on one more additional instrument.</p> <p>This additional instrument shall also be submitted beforehand to the accuracy tests. If a specimen does not pass a specific test and as a result has to be modified or repaired, the applicant shall carry out this modification to all instruments supplied for testing. If the testing laboratory has sound reasons to conclude that the modification has a negative influence on tests that already had a positive result, these tests shall be repeated. In order to minimize the measurement error, the instrument may be adjusted, if necessary, before type approval testing begins. Thereafter no adjustment shall be carried out until all type approval testing is complete.</p>	
0064 NL	2	1.4.10		Ed te	<p>The term electromagnetic susceptibility is not correct. Either electrical surges is meant (or the reference to A.3.4 is correct), Or Disturbance test is meant and the reference to A.3 must be made. It is commonly accepted that all disturbance tests can be performed with unterminated cables as this is the worst case.</p>	<p>Replace electromagnetic susceptibility with disturbance test and replace A.3.4 with A.3</p>	<p>Accepted. The original provision was provided for Electromagnetic susceptibility test (current name for this test: Immunity to RF Electromagnetic fields). The document has been amended to reflect the updated name of the test and the reference to the test has been amended to A.3.5.</p>
0065 NO	2	1.4.10	Last paragraph	Tech	<p>It is better to refer to the relevant EMC standard. The standard is often revised faster than R129 and we mean therefore it is better to refer to the relevant EMC standard. Here the cable length may be in accordance with applicable EMC standard</p>	<p>The electromagnetic susceptibility test (see A.3.4) may be carried out on an instrument with only an unterminated cable, 3 m long (cable length can be in accordance to EMC standard) , connected to the interface.</p>	<p>Accepted. Document amended as follows:</p>

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							'The Immunity to RF Electromagnetic fields electromagnetic susceptibility test (see A.3.5) may be carried out on an instrument with only an unterminated cable, connected to the interface. The length of this cable will be in accordance with the relevant standard referenced in the test procedure.'
0066 IR 10	2	1.4.2		ge	Question: When we use an indicator whit an indication of less than 1/5d, our test object uncertainty should be less than 1/3*1.5 d?		Use of the extended indication does not have an impact on the test object uncertainty.
0067 NO	2	1.4.2	Second paragraph	Tech	The dimension of the test object shall be N x d ... For practical reason for production of such test objects, it is needed a better description of this requirement. We may define a tolerance for the product of N x d. for instance $\pm 1/3$ d.	Please add this sentence: An acceptable tolerance for the product of N x d may be $\pm 1/3$.d	Accepted. Document amended. "An acceptable tolerance for the product of N x d may be $\pm 1/3$.d", added to clause 1.4.2.
0068 NL	2	1.4.2	Second paragraph	Tech	The dimension of the test object shall be N x d ... We propose to define a tolerance for the test objects of N x d. for instance $\pm 1/3$ d.	Please add this sentence: An acceptable tolerance for the product of N x d is $\pm 1/3$.d	Accepted. Please see Convener's response for 0064 NL.
0069 IR 11	2	1.4.5		te	For an axis	It is recommended to replace "for an axis" with "for a test object"	Partially accepted. Provided clarity by amending the text to the following: "For irregular shaped test objects the smallest dimension of that test object for an axis shall be equal to..."
0070 NO	2	1.4.5	Second paragraph	Tech	It needs a little better description of the test.	Please add this "A cubical test object shall be placed on all sides and tested." The smallest specified protrusion, which can be measured by the instrument, shall be stated in certificate.	Not accepted. Please see response to 0056 NL.
0071 NL	2	1.4.5	Second paragraph	Tech	We propose to describe this test in more detail.	Please add this "A cubical test object shall be placed on all sides and tested." The smallest specified protrusion which can be measured by the instrument shall be stated in certificate.	Not accepted. Please see response to 0056 NL.

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0072 IR 12	2	2.1		te	Since the verification should be carried out in reference conditions, therefore instead of “intended condition of use”, it is better to write “In reference conditions”	In reference conditions	Not accepted. This refers to the initial verification, which is carried out at ambient conditions, which should be within the intended conditions of use.
0073 NL	2	2.2	-	ed	The term type evaluation certificate is not correct.	Replace type evaluation certificate with “OIML certificate” or simply “certificate”.	Accepted. Document amended. Type certificate replaced by ‘certificate’.
0074 DK	2	2.3	-	Te	Test objects used for initial verification should only full fill the requirements of the first section of 1.4.2 (first 7 lines).	Change the text by repeating the text from the first section (first 7 lines) from 1.4.2.	Not accepted. 1.4.2 provides requirements for test objects used for type evaluation and verification. If an instrument is fitted with an extended indication device, and the feature is used for verification, then the requirements for test objects used for this purpose is as provided in the last paragraph in 1.4.2.
0075 NL	2	2.4		Ed te	Refer to the repeatability test (A.1.2) instead of (A.1.3). Fixes the test of at least 5 different dimensions. Prevents any interpretation that testing near Min is acceptable, or that any influence factor test needs to be performed	Replace (A.1.3) with (A.1.2)	Accepted. Document amended.
0076 DK	2	2.4	-	Te	Do not agree with the text because it only says that accuracy tests should be carried out in accordance with A.1.3. We need to explain what is needed for initial verification. 1) Accuracy tests should only be made with maximum three different dimensions and could in many cases be done with only two different dimensions.	Accuracy test shall be carried out in accordance with the test in A.1.3 at the operating conditions in effect at the time of verification. Test objects shall be used such that at least one measurement of up to three dimensions spaced between and including at or near minimum and at or near the largest dimension that the instrument will measure in normal use, shall be carried out for each axis (L, W and H).	Partially accepted. Please see response for 0075 NL above. The requirements are as given in A.1.2, which specifies these requirements.

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					2) Why talk about test at Max dimension when in many cases objects with a size of Max can't pass through the equipment placed before or after the measuring instrument. The text should mention the largest dimension that the measuring instrument will measure in normal use.		
0077 IR 13	2	A.1.1		te	Instead of "after switch on"	In the fourth row of the table it is recommended to replace "after switch -on" with "after warm-up time"	Not accepted. The idea is to test the instruments at said interval of time from switch-on.
0078 IR 15	2	A.1.4		ge	Question: what is the number of repetitions of measurement for each surface?		A.1.2 provides for repeatability tests. Repetitions are outlined in the test sheets in Part 3.
0079 IR 14	2	A.1.4	First paragraph	ed	One of "May be" should be omitted		Accepted. Document amended.
0080 NO	2	A.1.4	First paragraph	Tech	The damp heat, cyclic test (A.2.2.2) is only carried out on instruments intended for use in locations where they may be subject to condensed water. The word condensed water is unclear. Would you please better describe what you mean by that?	Instead of "condensed water", use the word "dew point" or test with a humidity of RH 100%.	Please see response to 0081 NL. 'Condensate water' used as per OIML D11.
0081 NL	2	A.1.4	First paragraph	Tech	Should condensed water be changed to condensated water? If the instrument is in an environment where condensation takes place the damp heat cyclic has to be performed (not steady state).	The damp heat, cyclic test (A.2.2.2) is only carried out on instruments intended for use in locations where they may be subject to condensed condensate water.	Accepted. Document amended.
0082 JP3	2	A.1.7	Table A.1	Te	In the revision process of R 61-2: 2017, the cyclic test (condensing) was changed from a disturbance to an influence factor. This comment also relates to A.1.4 and our proposal (JP6) for A.2.2.2.	In the test item "A.2.2 Damp heat test" of Table A.1, we propose to replace "I / D" with "I".	Not accepted. Damp heat condensing has been classified as Disturbance as per OIML D11.
0083 NL	2	A.2.2.2	-	ed	This is classified as a disturbance test (see acceptance criteria in the test) and shall be moved to A.3	Move the test to A.3. Adjust the title of A.2.2 and A.2.2.1 accordingly.	Accepted. Document amended.
0084 JP4	2	A.2.2.2	1 st para. of "Test procedure in brief"	ed	The test temperature range needs to be changed.	Propose to replace "between 25 °C and 40 °C" with "between 25 °C and <u>the upper limit of operating temperature range</u> ".	Not accepted.

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							The text between 25 °C and 40 °C was discussed and decided during the meeting in May 2019. The test is a disturbance test conducted at 93% to 95% humidity. So an appropriate upper temperature was set at 40 °C.
0085 JP5	2	A.2.2.2	24h cycle in the 3 rd para. of “of “Test procedure in brief”	ed	Clarify the value of each test temperature as shown on the right.	<p>Propose following changes.</p> <p><i>The 24 h cycle comprises:</i></p> <p><i>1) temperature rise during 3 hours <u>to reach 25 °C</u>,</i></p> <p><i>2) temperature maintained at <u>the upper limit value of operating temperature range</u> until 12 hours from the start of the cycle,</i></p> <p><i>3) temperature lowered to <u>the lower temperature level (at 25 °C)</u> within a period of 3 to 6 hours, the declination (rate of fall) during the first hour and a half being such that the lower temperature level (<u>25 °C</u>) would be reached in a 3 hour period,</i></p> <p><i>4) temperature maintained at the lower level (<u>at 25 °C</u>) until the 24 h period is completed.</i></p>	<p>Not accepted.</p> <p>The test has been drafted as per OIML D11.</p>
0086 JP6	2	A.2.2.2	Acceptance criteria	te	The cyclic test needs to be considered as an influence factor instead of a disturbance.	<p>We propose to replace the present acceptance criteria with the following sentence.</p> <p><i>All functions shall operate as designed. The test results shall comply with the mpe specified in R 129-1, clause 4.1.2.</i></p> <p>This is the same acceptance criteria with that of A.2.2.1 (steady state / non-condensing).</p>	<p>Not accepted.</p> <p>Please see responses to 0082 JP3, 0084 JP4 and 0085 JP5.</p>

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0087 FR 11	2	A.2.3		tech	AC Mains voltage variation. The information mentioned in case “test level” are different from OIML D11 and do not include information on three phases mains power supplies FI : in section 3, table 2.6.2 mentioned “nominal voltage – 15%” & 2.6.3 “nominal voltage +10 %”	<table border="1"><tr><td rowspan="2">Mains voltage (1), (2)</td><td>Upper limit</td><td>$U_{nom1} + 10\%$</td></tr><tr><td>Lower limit</td><td>$U_{nom2} - 15\%$</td></tr><tr><td>Notes</td><td colspan="2">(1) For three phase mains power supplies, the voltage variation is applicable for each of the phases successively. (2) The values of U_{nom} are those as marked on the measuring instrument. If a range is specified, U_{nom1} concerns the highest and U_{nom2} concerns the lowest value in the range. If only one nominal mains voltage value (U_{nom}) is specified then $U_{nom1} = U_{nom2} = U_{nom}$.</td></tr></table> Please copy the test level and notes of the table 20 of OIML D11 . (1) For three phase mains power supplies, the voltage variation is applicable for each of the phases successively. (2) The values of U_{nom} are those as marked on the measuring instrument. If a range is specified, U_{nom1} concerns the highest and U_{nom2} concerns the lowest value in the range. If only one nominal mains voltage value (U_{nom}) is specified then $U_{nom1} = U_{nom2} = U_{nom}$.	Mains voltage (1), (2)	Upper limit	$U_{nom1} + 10\%$	Lower limit	$U_{nom2} - 15\%$	Notes	(1) For three phase mains power supplies, the voltage variation is applicable for each of the phases successively. (2) The values of U_{nom} are those as marked on the measuring instrument. If a range is specified, U_{nom1} concerns the highest and U_{nom2} concerns the lowest value in the range. If only one nominal mains voltage value (U_{nom}) is specified then $U_{nom1} = U_{nom2} = U_{nom}$.		The information is provided in the test procedure A.2.3. The requirement for three phase mains power supply is provided in Test procedure in brief with only the test levels (110% of U_{nom} and 85% of U_{nom}) specified in Test level. U_{nom} -15% is 85% of U_{nom} and U_{nom} +10% is 110% of U_{nom} .																																																																						
Mains voltage (1), (2)	Upper limit	$U_{nom1} + 10\%$																																																																																			
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0088 NL	2	A.2.4	Test level	te	Test level “(b) at various reduced voltages below nominal voltage” is not sufficiently detailed. How many different values shall be tested? Test level (c) 90% of nominal voltage is arbitrary. The instrument may not be functional at this level.	Define two test levels: (a) at nominal voltage that is specified by the manufacturer (b) at the minimum voltage where the instrument is functional. Remove the last sentence as it is included in level (a) now.	Not accepted. The requirement is as per OIML D11.																																																																														
0089 FR 12	2	A.3.1		ed	Test level : It could be better to use wordings on OIML D11 & CEI standard : “50/60 Hz, cycles”... instead of “ms” Example <table border="1"><tr><th colspan="2">Test level index⁽¹⁾</th><th>1</th><th>2</th><th>i⁽³⁾</th></tr><tr><td rowspan="2">Test a</td><td>Reduction to</td><td>0</td><td>0</td><td>x_a</td></tr><tr><td>Duration</td><td>0.5</td><td>0.5</td><td>n_a</td></tr></table> Instead of (a) 100% reduction for 8 to 10 ms	Test level index ⁽¹⁾		1	2	i ⁽³⁾	Test a	Reduction to	0	0	x_a	Duration	0.5	0.5	n_a	Please, copy test level mentioned the table 23 including notes 2 and 4 : <table border="1"><tr><th colspan="2">Test level index⁽¹⁾</th><th>1</th><th>2</th><th>i⁽³⁾</th><th>unit</th></tr><tr><td rowspan="7">Voltage dips</td><td>Test a</td><td>Reduction to</td><td>0</td><td>0</td><td>x_a</td></tr><tr><td rowspan="2">Test b</td><td>Duration</td><td>0.5</td><td>0.5</td><td>n_a</td></tr><tr><td>Reduction to</td><td>0</td><td>0</td><td>x_b</td></tr><tr><td rowspan="2">Test c</td><td>Duration</td><td>1</td><td>1</td><td>n_b</td></tr><tr><td>Reduction to</td><td>70</td><td>40</td><td>x_c</td></tr><tr><td rowspan="2">Test d</td><td>Duration</td><td>25/30⁽⁴⁾</td><td>10/12⁽⁴⁾</td><td>n_c</td></tr><tr><td>Reduction to</td><td>n/a</td><td>70</td><td>x_d</td></tr><tr><td rowspan="4">Short interruptions</td><td rowspan="2">Test e</td><td>Duration</td><td>n/a</td><td>25/30⁽⁴⁾</td><td>n_d</td></tr><tr><td>Reduction to</td><td>n/a</td><td>80</td><td>x_e</td></tr><tr><td rowspan="3">Test f</td><td>Duration</td><td>n/a</td><td>250/300⁽⁴⁾</td><td>n_e</td></tr><tr><td>Reduction to</td><td>n/a</td><td>0</td><td>x_f</td></tr><tr><td colspan="2">Notes</td><td colspan="4">(1) The test levels considered most appropriate and preferable for OIML Recommendations are presented in bold face. (2) For the voltage dips, all tests within the test level may be applicable (see 8.4.2.4). (3) “x”, “n” and “n” are variables and indicate that alternative test levels with alternative characteristics may be specified in the applicable Recommendation if accompanied by a rationale for such choice. For equipment connected directly or indirectly to the public network, the levels shall not be less severe than level 2. (4) Values applicable for 50 Hz / 60 Hz respectively.</td></tr></table>	Test level index ⁽¹⁾		1	2	i ⁽³⁾	unit	Voltage dips	Test a	Reduction to	0	0	x_a	Test b	Duration	0.5	0.5	n_a	Reduction to	0	0	x_b	Test c	Duration	1	1	n_b	Reduction to	70	40	x_c	Test d	Duration	25/30 ⁽⁴⁾	10/12 ⁽⁴⁾	n_c	Reduction to	n/a	70	x_d	Short interruptions	Test e	Duration	n/a	25/30 ⁽⁴⁾	n_d	Reduction to	n/a	80	x_e	Test f	Duration	n/a	250/300 ⁽⁴⁾	n_e	Reduction to	n/a	0	x_f	Notes		(1) The test levels considered most appropriate and preferable for OIML Recommendations are presented in bold face. (2) For the voltage dips, all tests within the test level may be applicable (see 8.4.2.4). (3) “x”, “n” and “n” are variables and indicate that alternative test levels with alternative characteristics may be specified in the applicable Recommendation if accompanied by a rationale for such choice. For equipment connected directly or indirectly to the public network, the levels shall not be less severe than level 2. (4) Values applicable for 50 Hz / 60 Hz respectively.				Accepted. Document amended to incorporate test levels from OIML D11.
Test level index ⁽¹⁾		1	2	i ⁽³⁾																																																																																	
Test a	Reduction to	0	0	x_a																																																																																	
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		Reduction to	n/a	70	x_d																																																																																
Short interruptions	Test e	Duration	n/a	25/30 ⁽⁴⁾	n_d																																																																																
		Reduction to	n/a	80	x_e																																																																																
	Test f	Duration	n/a	250/300 ⁽⁴⁾	n_e																																																																																
		Reduction to	n/a	0	x_f																																																																																
Notes		(1) The test levels considered most appropriate and preferable for OIML Recommendations are presented in bold face. (2) For the voltage dips, all tests within the test level may be applicable (see 8.4.2.4). (3) “x”, “n” and “n” are variables and indicate that alternative test levels with alternative characteristics may be specified in the applicable Recommendation if accompanied by a rationale for such choice. For equipment connected directly or indirectly to the public network, the levels shall not be less severe than level 2. (4) Values applicable for 50 Hz / 60 Hz respectively.																																																																																			
0090 NL	2	A.3.1	Test level	Ed te	Description of the test levels do not match D11 (2013). For easy comparison the text shall be identical.	Change to (a) reduction to 0% for 0,5 cycle (b) reduction to 0% for 1 cycle (c) reduction to 40% for 10/12 cycles	Accepted. See response to 0089 FR12.																																																																														

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2 Type of comment: ge = general te = technical ed = editorial

Template for comments and convener's observations

Date:2020-03-25

Document: TC7_SC5_P1_N055

Project: TC 7/SC 5/p 1

Country Code ¹	Part	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment ²	Comments	Proposed change	Convener's responses
					Levels (a) and (b) give options (8 to 10 ms) but do not specify the background (mains frequency: 8 ms for f = 60 Hz, 10 ms for f = 50 Hz)).	(d) reduction to 70% for 25/30 cycles (e) reduction to 80% for 250/300 cycles (f) reduction to 100% for 250/300 cycles Add note 4 from D11 (2013) table 23	
0091 FR-10 – 3CD	2	A.3.2		techn	<p>France wants also to answer to one observationsdone by the convener on its comments issued from the document “TC7_SC5_P1_N047-Conveners response to comments - 3 CD”</p> <p>Test of D11 dealing with “ 50 Ω and 1000 Ω “, why not have the mention of “1000 Ω” ?</p>	<p>It should be expertise why this test is not align with the D11, if there is no reason please align with D11.</p> <p>France doesn't understand why this comment hasn't been accepted, without explanation, France maintain it.</p>	<p>Accepted.</p> <p>Document amended to align with D11.</p> <p>Apologies for missing this comment in the Convener's response for 3 CD.</p>
0092 NO	2	A.3.3	General	Tech	<p>We think generally that for all influence factor tests such as EMC etc., it should be referred to the relevant standards instead of specifying in R129.</p> <p>It is better to require in accordance to FCC (EMC requirements), NRTL (electrical safety), EMC-directive, LVD (low voltage directive)</p>		<p>Not accepted.</p> <p>Whilst the conveners do agree that the test should be based on the relevant international standards, the tests in these are generic and the tests provided in R 129 are specific to multidimensional References to relevant standards are included in each test.</p>
0093 NL	2	A.4.2	Test level	Ed te	Text is not similar to the text agreed in the discussions:	<p>The text “The sound pressure shall be measured at the transducer used in the EUT acoustic source with the EUT off.” Shall be replaced by “The sound pressure shall be measured at the acoustic source with the EUT off.”</p>	<p>Accepted.</p> <p>Document amended.</p> <p>Agreed text was inadvertently altered when finalized.</p> <p>Technically, the change is minor, and is considered editorial.</p>
0094 NL	2	A1.7	-	ed	The table in the chapter (and thus the whole chapter) is obsolete. Every test procedure in A.2 – A.4 has an item “Applicability” included. If that is correct and complete than the summary in the table is not necessary anymore.	Delete A.1.7.	<p>Not accepted.</p> <p>Table retained for quick reference.</p>
0095 NL	3	2.8	-	ed	Test levels do not match R129-2 A.3.1		<p>Accepted.</p> <p>Document amended.</p>

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0096 NL	3	2.8 – 2.12		ed	Space reserved for 3 measurements per disturbance. This is not prescribed by R 129-2 A.1.4. Three measurements per disturbance is usually not enough (RFI, ESD). Proposal to limit the registration in the test report to 1 line per disturbance showing the maximum deviation observed. Advantage reducing the size of the test report.	Reduce the number of lines per test.	Not sure about what is being referred to here. We cannot see the 3 lines per disturbance. Only seeing them in 2.11, but that test requires 3 surges.
0097 NL	3	2.9	-	Ed te	Layout does not match the basic standard as the combinations need to be tested as well: <ul style="list-style-type: none"> • L+N • L+PE • N+PE • L+N+PE 	Add four more test combinations to the table for the instrument as well as to the table for the auxiliary device.	Not accepted. Test format maintained as it conforms to format presented in other Recommendations
0098 NL	3	2.11 Page 39		ed	Test page for DC mains. DC mains not covered by R 129-1 and R 129-2	Delete page.	Accepted. Test reports amended.
0099 NL	3	2.11 Page 40 To 43		ed	Layout does not match basic standard. No coverage for N-PE (or L2-PE) tests Layout can be reduced to 1 page see R 76-2 (2007)	Copy layout from R 76-2 (2007)	Accepted. Test reports amended.
0100 NL	3	2.13.4		ed	Ambient light unknown lx looks very strange.	Change unknown to special	Partially accepted. The test report amended to “other” from “unknown”.
0101 NL	3	2.26		Ed te	Test not covered by R129-2 Annex A but a description exists in R 129-2 clause 1.4.7. A specific requirement does not seem to exist in R 129-1 clause 4.	Test to be added to R 129-2 as a General test A.1. Requirement to be added to R 129-1 clause 4.	The test is specified under A.1.6. The reference in 2.26 changed accordingly. Part 2, clause A.1.6 has been amended to list the tests for clarity. The references in the checklist (page 22 of Part 4) also has been updated.
0102 NL	3	Whole document		ed	Auxiliary device changed to ancillary device in R 129-1	Change Auxiliary device with ancillary device in the whole document	Accepted. Document amended.
0103 NL	4	1 Checklist		Ed	Checklist needs to be updated with applicable requirements from R129-1 (quick check: 4.1.4 and 4.16 are not present)	Update checklist after R 129-1 is confirmed / accepted.	Accepted. Document amended.

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0104 NL	4	15		ed	Adjustments or modifications This information is unwanted and not necessary. The certification shall show the state of the instrument the way it passed the evaluation. There is no need to document its state at the start of the evaluation. Adjustments and modifications that were necessary to pass the evaluation shall be part of the final specification and/or description of the instrument.	Delete this page.	Not accepted. If there are no adjustments or notifications you can just put a N/A on the page. For the new type evaluation report we would like to err on the side of too much info instead of too little. This can be reviewed at the next revision.
0105 NL	4	Page 7		ed	Documents list. Document usually do not have a serial number.	Change serial number to identification number	Accepted. Document amended. In part 4, Identification no. relates to instrument. OS to avoid confusion, the last column has been now renamed as 'Document identification'.
0106 NL	4	Page 7 Page 8		ed	Simulator documentation. Simulators are commonly used for testing but not for evaluation. This information must be present in the test report (R129-3)	Delete all required information on the use of simulator(s)	Not accepted. The idea of the evaluation report is to present the information in one place. Part 4 is new to OIML Recommendations and at this point in time, it is better to err on the side of requesting too much information rather than settling for too little. If during the course of use, this information is deemed to be irrelevant for Part4, it can always be fixed in the next review of R 129.

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Z:\TCSC\tc7_sc5\p1 Revision of OIML R 129\4CD\Comments\399-UNITED STATES-4CD_Revision_of_R129 -US comments- 20 March 2020.docx: Collation successful
Collation of files was successful. Number of collated files: 8
SELECTED (number of files): 8
PASSED TEST (number of files): 8
FAILED TEST (number of files): 0
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