**INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC) SYSTEM FOR CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR USE IN EXPLOSIVE ATMOSPHERES (IECEx SYSTEM)**

**Title****: Compilation of Comments on ExTAG/722/CD –** **Draft ExTAG Decision Sheet - Applicability of IEC 60079-0 for non-electrical equipment**

**Circulated to: ExTAG – IECEx Testing and Assessment Group**

**INTRODUCTION**

This document, contains the Compilation of Comments and Observations, prepared by the Originator, NEPSI, CN, on ExTAG/722/CD Draft ExTAG Decision Sheet - Applicability of IEC 60079-0 for non-electrical equipment

As a result of comments received a revised Draft Decision Sheet ExTAG/722A/CD has been prepared for consideration during the ExTAG Brazil Meeting.

***Please inform the Secretariat immediately of any omissions or errors at***

***[Christine Kane](mailto:info@iecex.com)***



| **ExCB/**  **ExTL** | **Clause/ Sub-clause** | **Paragraph Figure/**  **Table** | **Type of**  **comment**  **General/**  **technical/**  **editorial** | **COMMENTS** | **Proposed change** | **Observation**  **(to be completed by the originator)** |
| --- | --- | --- | --- | --- | --- | --- |
| BIS applicant ExCB  IN |  |  | General | Agree with draft decision sheet |  | Noted. |
| BV Germany DE | - | - | General | Bureau Veritas CPS Germany does not support this draft ExTAG decision sheet in a way that it’s intention would be to have a compulsory, explicit additional listing of IEC 60079-0 in all CoCs for purely non-electrical equipment. ISO 80079-36 is the basic standard for non-electrical equipment. Of course, relevant requirements of IEC 60079-0 generally need to be (and are) applied as well, as clearly referenced within ISO 80079-36 and -37. But we see no necessity to explicitly list IEC 60079-0 besides ISO 80079-36 /-37 in each case. One further concern would be that using this argumentation one could generally also list many further standards in CoCs (such as IEC 60529 for IP testing etc.). This could make it more difficult for users of Ex equipment to clearly and quickly identify the basic modes of Ex protection in a CoC, which have been applied. | None. BV Germany recommends not to issue this draft DS. | Accepted in principle.  As an action to ExTAG Decision 2023/15 (ExTAG/716/DL Decision List of ExTAG Edinburgh meeting), this draft DS is to ensure all the ExCBs and ExTLs to consistently implement the relevant requirements of IEC 60079-0 as clearly referenced within ISO 80079-36 and ISO 80079-37, when testing and assessing non-electrical equipment.  The question of the draft DS has been adjusted as “***Does IEC 60079-0 apply for testing and assessment of non-electrical Ex Equipment and Ex Components?***”  The issues on whether IEC 60079-0 needs to be listed on the certificate and how the testing and assessment results that meet the relevant requirements of IEC 60079-0 are reflected in ExTR and etc are under the scope of OD 280.  Issuing this DS is a compromise solution for immediately ensuring bodies are aware of the application of IEC 60079-0 for non-electrical Ex Equipment and Ex Components, and it could then be withdrawn once OD 280 is revised and issued with the clarity, in noting the OD 280 is under revision according to ExTAG Decision 2023/16 (ExTAG/716/DL Decision List of ExTAG Edinburgh meeting) .  In addition, for testing and assessment of Ex equipment, the standards IEC 60529 and IEC 60079-0 ff are not at the same level. |
| CCCMT  CN |  |  | General | We support the draft ExTAG decision sheet in principle. |  | Noted. |
| CNE/CQST  CN | - | - | T | NO | NO | Noted. |
| CNEX-Global BV  NL | - | - | Ge | The current text in the -36 and -37 is very clear about the applicability of IEC 60079-0.  There is thus no need for this DS. | Withdraw draft DS | Not accepted.  As a matter of fact, there are different understandings among bodies within IECEx scheme.  It seems that a DS is very important and urgent to ensure all the bodies to consistently implement the relevant requirements of IEC 60079-0 when testing and assessing non-electrical equipment, in order to provide sufficient confidence that equipment covered by an IECEx Certificate do meet all the requirements as specified by standards. |
| DEKRA / BVS  DE |  |  | General | We are in favour with the DS. |  | Noted. |
| Eurofins CML |  |  | General | The question should be:  Shall IEC 60079-0 be listed in certificates of non-elec equipment?  Answer yes:  ISO 80079-36:2016 Ed.1.0 already defines scope, therefore, reports could include an IEC 60079-0 checklist and the std could be listed in the certs of non-elec equipment.  The listed additional info may result to confusion ;  1. the current -1 and -2 apply only to elec equipment  2. further to item (1) - flameproof is impractical for the majority of mechanical equipment. The principles of -2 are applied in industry (inerting), however, this is always part of the process.  3. The principles of Ex t are covered, when and as required, by clause 5 of ISO 80079-37 (IP protection). Also, "protection by dust enclosure" is impractical for most non-elec equipment and -31 has been written with elec equipment in mind. |  | Accepted in part.  With a comprehensive consideration of all the received comments, including the comments of WG22, in noting OD 280 is under revision the question of the DS has been adjusted as:  ***Does IEC 60079-0 apply for testing and assessment of non-electrical Ex Equipment and Ex Components?***  Instead of the previous additional information as the following notes:  ***NOTE 1*** *Issuing this decision sheet is a compromise solution for immediately ensuring bodies are aware of the application of IEC 60079-0 for non-electrical Ex Equipment and Ex Components, and it could then be withdrawn once IECEx OD 280 is revised and issued with the clarity.*  ***NOTE 2*** *The IECEx OD 280 is under revision, which will further clarify the issues of whether IEC 60079-0 needs to be listed on the certificate and how the testing and assessment results that meet the relevant requirements of IEC 60079-0 are reflected in ExTR.* |
| Eurofins  SEV | all | All | general | Up to now, 80079-36 is a complete standard and the points of 60079-0 are reproduced twice. From this point of view, it makes no sense ti fill out the IEC 60079-0 report and list it in the certificate. If, however, there is a decision sheet without any problems. It should be noted that this makes the IECEx reporting more complex and possible more expensive. | Based on new DS | Accepted in part.  The current text in ISO 80079-36 and ISO 80079-37 is very clear about the applicability of IEC 60079-0. It is necessary to implement the requirements when testing and assessment of non-electrical equipment.  With the comprehensive consideration of all the comments, the draft DS has been revised to mainly clarify the applicability of IEC 60079-0 for testing and assessment of non-electrical Ex equipment and Ex Component. |
| ExTC  AU |  |  |  | ExTAG/722/CD Decision Sheet appropriate and acceptable, with no changes needed. |  | Noted. |
| FMG  US |  |  | ge | FMG supports the Decision Sheet as presented. | None | Noted. |
| FIDI  HR | / | / | T/E | Fiditas understand needs for the harmonization of the approach in certification of non-electrical equipment, but we disagree with proposed text.  Since ISO 80079-36 recalls in some clauses IEC 60079-0 ExCB/ExTL should use IEC 60079-0 in the assessment but we consider that is not mandatory to list IEC 60079-0 in the CoC.  So, we think that question should be:  “Does standard IEC 60079-0 have to be listed in the certificate…” and not  “Does IEC 60079-0 apply…”  Also, current IECEx OD 280 - Guide to Certification of Non-electrical Equipment and Protective Systems in clause 3 does not mention IEC 60079-0. If current guide does not state IEC 60079-0 why ask to list in the CoC. | Since IECEx OD 280 provides guidance for certification of Non-electrical Equipment we propose to withdraw the proposed ExTAG DS and the clarification provides through revision of OD 280. | Accepted in part.  With the comprehensive consideration of all the comments, the draft DS has been revised to mainly clarify the applicability of IEC 60079-0 for testing and assessment of non-electrical Ex equipment and Ex Component.  As mentioned above, the issues regarding whether IEC 60079-0 needs to be listed on the certificate and how the testing and assessment results that meet the relevant requirements of IEC 60079-0 are reflected in ExTR will be separately clarify by OD 280, in noting the OD 280 is under revision according to ExTAG Decision 2023/16. |
| FTZU  CZ |  |  | G | We agree with this draft ExTAG Decision Sheet. |  | Noted. |
| IBExU  DE | complete standard | complete standard | general | For non-electrical products the additional use of IEC 60079-0 makes no sense due to the fact the IEC 60079-36 includes all relevant information for complete testing  It is only extra work with no further safety for the product. | Delete cross reference from IEC 60079-36 to IEC 60079-0. | Not accepted.  The current text in ISO 80079-36 and ISO 80079-37 is very clear about the applicability of IEC 60079-0. It is necessary to implement the requirements when testing and assessment of non-electrical equipment. |
| ITS (ExTL)  IN |  |  | General | No comments. |  | Noted. |
| KLCS  (ExCB & ExTL)  IN |  |  | General | Agree with draft decision sheet. |  | Noted. |
| KR Hellas |  |  |  | KR Hellas has no comment. |  | Noted. |
| LCIE  FR |  |  | General | We do not support this draft DS.  According to IECEx OD 280 Ed. 1.0 and current edition of ISO 80079-36 standard, we think that IEC 60079-0 does not need to be covered (means with related ExTR) when assessing non-electrical equipment.  However, IEC 60079-0 is a reference standard for the verification of several requirements of ISO 80079-36 Ed. 1.0. |  | Accepted in part.  The current text in ISO 80079-36 and ISO 80079-37 is very clear about the applicability of IEC 60079-0. The IEC 60079-0 is not only a reference standard but also a standard with applicable requirements as well for a non-electrical equipment.  OD 280 is under revision according to ExTAG Decision 2023/16. Issuing this decision sheet is a compromise solution for immediately ensuring bodies are aware of the application of IEC 60079-0 for non-electrical Ex Equipment and Ex Components, and it could then be withdrawn once OD 280 is revised and issued with the clarity. |
| NANIO CCVE (RU) |  |  | General | We support DS ExTAG/722/CD without any comments. |  | Noted. |
| NEPSI  CN |  |  | G | We support the revised draft decision sheet ExTAG/722/CD. |  | Noted. |
| PTB  DE |  |  | ge | Part -36 expands to -0 at the necessary points, meaning that the requirements are fully met even without mentioning -0. If the -0 is listed in the certificate, the Ex-Tr checklist is also expected to be completed. No advantage, but more administration. | Reject the DS.  IEC 60079-0 does not have to be listed for mechanical equipment. | Accepted in part.  According to Table 1 of ISO 80079-36, some specific clauses of IEC 60079-0 should be applied or modified. For instance a non-electrical equipment with a glass window should be subjected to thermal shock test, the test method and acceptance criteria are exclusively listed in IEC 60079-0. Therefore a DS is important for ensuring all the bodies to unfirmly implement the relevant requirements of IEC 60079-0 for testing and assessment of non-electrical equipment, in order to provide sufficient confidence that equipment covered by an IECEx Certificate do meet all the requirements as specified by standards  According to ExTAG Decision 2023/16, OD 280 is under revision by ExMC WG15, for dealing whether IEC 60079-0 needs to be listed on the certificate and how the testing and assessment results that meet the relevant requirements of IEC 60079-0 are reflected in ExTR. |
| QPS  ExCB |  |  |  | QPS agrees to DS and has no comments. |  | Noted. |
| Simtars  AU |  |  |  | No comments from Simtars. |  | Noted. |
| TC31  WG22 |  |  | ge | WG22 supports the Decision Sheet as presented. | None | Noted. |
| TC31  WG22 |  |  | Ed | The answer section of the decision sheet refers to “specific technical concepts of Ex d, Ex p and Ex t” and “specific technical concepts of Ex c, Ex b and Ex k”.  This does not align with the terminology used in the 60079 and 80079 series of standards. | The reference should be corrected to “specific type of protection” instead of “specific technical concepts” to align with IEC 60079 series standards and ISO/IEC 80079 series standard terminology. | Accepted.  On consideration of all the comments received, the draft DS has been revised to align with the revision of OD 280.  This DS is a compromise and quick solution, and could then be withdrawn once OD 280 is revised and issued with clear clarifications. |
| TIIS  JP |  |  | Te | 1. The question and answer should clarify that IEC 60079-0 be included in IECEx and ExTR or not.  2. Contents in "Additional information 1)" should be another question and answer since it brings another discussion. | Modify Question and Answer as follows.  Question 1:  Does IEC 60079-0 apply for testing and certification of non-electrical equipment and components?  Answer 1:  Yes, IEC 60079-0 is applicable for testing and certification of non-electrical equipment and components according to Table 1 under Chapter 1 of ISO 80079-36:2016 Ed.1.0.  IECEx CoC shall include IEC 60079-0, in addition to ISO 80079-36, in its "STANDARDS:" part.  Relating ExTR shall include evaluations for applicable clauses of IEC 60079-0 in accordance with Table 1 of ISO 80079-36:2016.  Question 2:  When the non-electrical equipment or component has been assessed using technical concepts of Ex d, Ex p or Ex t, shall its IECEx CoC included related standard (IEC 60079-1, IEC 60079-2 or IEC 60079-31) in its "STANDARDS:" part?  Answer 2:  No, IECEx CoC shall not include related standards. Just using concepts of related standards in IHA, conformity to the related standards cannot be declared.  Additional information:  For "c", "b" and/or "k" protection, all applicable clauses of ISO 80079-37 are considered, therefore IECEx CoC shall include IEC 80079-37 in its "STANDARDS:" part. | Accepted in part.  On consideration of all the comments received, the draft DS has been revised to align with the revision of OD 280.  OD 280 is under revision by ExMC WG15, for dealing whether IEC 60079-0 needs to be listed on the certificate and how the testing and assessment results that meet the relevant requirements of IEC 60079-0 are reflected in ExTR.  This DS is a compromise and quick solution, and could then be withdrawn once OD 280 is revised and issued with clear clarifications on this issue. |
| UL Solutions (US) | Answer |  | Technical | We disagree that IEC 60079-0 must be called out on a certificate for equipment evaluated to only ISO 80079-36 and -37. We consider IEC 60079-0 a referenced standard, with the primary requirements for non-electrical equipment contained within ISO 80079-36 itself. The references to IEC 60079-0 are provided for additional information on particular clauses. This is further supported by the fifth paragraph and associated Note 4 of the scope of IEC 60079-0:2017, which exclude some of the ignition sources covered by ISO 80079-36.  Additionally, regardless of the final position on this topic, our preference would be to refer this back to ExMC WG15 for OD 280 instead of publishing an ExTAG decision sheet. | Revise the answer to indicate that IEC 60079-0 should not appear in the list of standards for the CoC or ExTR summary on OCS or ExTR cover sheet unless the equipment has been evaluated to standard(s) that are used directly with IEC 60079-0, for example in equipment that has both electrical and mechanical ignition types of protection. | Accepted in part.  Due to inconsistent understandings among bodies, the draft DS is urgent to ensure all bodies within IECEx scheme to consistently implement the relevant requirements of IEC 60079-0 as clearly referenced within ISO 80079-36 and ISO 80079-37, when testing and assessing non-electrical equipment.  According to ExTAG Decision 2023/16, OD 280 is under revision to clarify the details at operational level as you mentioned.  Issuing this DS is a compromise and quick solution for ensuring bodies are aware of the application of IEC 60079-0 for testing and assessment of non-electrical Ex Equipment and Ex Components, and it could then be withdrawn once OD 280 is revised and issued with the clarity. |