



IECEx OD 010-2

Edition 2.0 2017-10

IECEx Operational Document

**IEC System for Certification to Standards relating to
Equipment for use in Explosive Atmospheres**

**Operational Document - Guidance for the development,
compilation, issuing and receipt of ExTRs**

Part 2: Procedures and guidance





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IECEX OD 010-2

Edition 2.0 2017-10

IECEX OPERATIONAL DOCUMENT

IEC System for Certification to Standards relating to Equipment for use
in Explosive Atmospheres (IECEX System)

Guidance for the development, compilation, issuing and receipt of ExTRs
Part 2: Procedures and guidance

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IECEX OPERATIONAL DOCUMENT OD 010 - 2

Guidance for the development, compilation, issuing and receipt of ExTRs Part 2: Procedures and guidance

INTRODUCTION

This Part 2 of the document OD 010 has been prepared to detail a common approach by IECEx Test Laboratories (ExTLs) and IECEx Certification Bodies (ExCBs) when compiling, issuing ExTR packages by Issuing ExTLs/ExCBs.

This Part 2 is part of the overall revision of OD 010 which is to now be issued in the following two parts:

OD 010-1 - Development and posting of blank IECEx Test Report (ExTR) documents

OD 010-2 - Procedures and guidance

Document History

Date Summary

Date	Summary
2003 - 06	OD 010 Original issue
2012 - 08	Revised and replaced by Parts 1 and 2
2017-10	Revised as Issue 2 as approved by ExMC Decision 2017/40 regarding ExMC/1251/DV and to include GB comments provided as ExMC/1296/CD.

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Guidance for the development, compilation, issuing and receipt of ExTRs

Part 2: Procedures and guidance

1 Introduction

The purpose of this Operational Document is to establish a common approach amongst all IECEx Test Laboratories (ExTLs) and IECEx Certification Bodies (ExCBs) operating within the IECEx System regarding the following:

- Compilation, approval and issuance of ExTR packages by Issuing ExTLs/ExCBs; and
- Receipt, review and audit of ExTR packages by Receiving ExTLs/ExCBs.

The term “ExTR package” refers to the overall record of the evaluation and testing performed on a given item or product. An ExTR package is always comprised of an ExTR Cover, and often also includes one or more additional ExTR documents.

The term “ExTR document” refers to any of the IECEx form documents that include the ExTR Cover, ExTR Addendum, ExTR of National Differences and ExTR of Partial Testing documents, along with the individual Ex Test Reports for each of the IEC Ex standards.

The term ‘blank’ in reference to an ExTR document refers to the form version of that ExTR document that is posted on the IECEx website for ExTL/ExCB use when evaluating and testing IEC Ex equipment and components.

Regarding the development of new or revised blank ExTR documents by ExTLs/ExCBs and subsequent posting by the IECEx Secretariat, see OD 010-1, *Guidance for the Development and Posting of Blank IECEx Test Report (ExTR) Documents*.

This Operational Document (OD) 010-2 together with OD 010-1 complement the IECEx Operations Manual, OD 009, *IECEX Certified Equipment Scheme, Procedures for the Issuing of IECEx Certificates of Conformity, IECEx Test Reports and IECEx Quality Assessment Reports*. Terminology has been aligned to comply with IECEx 02, *IEC System for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEX System)*, *IECEX Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules of Procedure*.

OD 010-2 is issued as a result of discussions and comments prior to, during and subsequent to the 2009, 2010 and 2011 IECEx ExTAG meetings. Substantial changes made since the 1st edition of OD 010 impact all aspects of the document.

2 Compilation, Approval and Issuance of ExTR packages

2.1 General Rules

An ExTR package is always comprised of an ExTR Cover, and often also includes one or more additional ExTR documents. These additional ExTR documents may include individual Ex Test Reports for one or more of the IEC Ex standards, ExTR Addendums, ExTR of National Differences and/or ExTR of Partial Testing documents.

The compilation, review and approval of ExTR packages shall be in accordance with OD 009, *IECEX Certified Equipment Scheme, Procedures for the Issuing of IECEx Certificates of*

Conformity, IECEx Test Reports and IECEx Quality Assessment Reports. The steps in OD 009 that are applicable to ExTR packages are in line with the requirements of ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories.*

The test results presented in an ExTR package relate only to the item(s) or product(s) evaluated and tested. If there is a need for the entry of data or additional details beyond the existing fields of an ExTR package, the following applies:

- For inclusion of additional text, use "(see Attachment #)" to reference additional information appended to any ExTR document.
- For inclusion of additional tabulated content, use "(see appended table)" to reference a table appended to any ExTR document.

The ExTR Reference number that is generated by the IECEx "On-Line" Certificate System for a given ExTR package is to be added to the top of each page of each associated ExTR document, except for the first page of each document that already has the "ExTR Reference No." indicated.

Throughout an ExTR package, a point "." is used as the decimal separator.

Where the term 'N/A' appears in any part of an ExTR package, it indicates that the associated issue was determined to be 'Not applicable' to the involved evaluation.

While the content intended to be entered in some ExTR document fields is self-explanatory, other fields could benefit from additional explanatory commentary. Embedded comments are included as part of the fields in many ExTR documents. These fields with embedded comments will be further explained as part of this Operational Document.

Any embedded comments provided to assist with the compilation of ExTR documents must be removed prior to final approval by the involved ExCB.

2.2 Copyright and reproduction

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The technical content of completed ExTR documents shall not be reproduced except in full without the written approval of the Issuing ExCB/ExTL.

2.3 ExTR Cover

2.3.1 General

An ExTR Cover is the sole top-level document to associate together all other parts of an ExTR package. These other parts of an ExTR package may include Ex Test Report, Addendum, National Differences and Partial Testing documents.

The purpose of the ExTR Cover for an ExTR package is to contain key information that is common across all other parts of the ExTR package. This eliminates the need to repeat such common information across multiple ExTR documents, and highlights this key information in a standardized fashion in one location for ready access.

If the ExTL has more than one permanent location which is included in IECEX assessments and the testing covered by a specific report is conducted at multiple permanent locations the addresses of all locations where testing has been conducted shall be recorded on the ExTR Cover.

Manufacturer's documents tabulated as part of an ExTR Cover should consider OD 017, *Drawing and Documentation Guidance for IECEX Certification*.

All ExTR package documents are compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the overall ExTR package on the ExTR Cover. Signatures of the ExTL compiler, ExTL reviewer and ExCB approver may be handwritten or scanned versions.

An example of a completed ExTR Cover is included in Annex A.

2.3.2 'Standards associated with this ExTR package' field

The 'Standards associated with this ExTR package' field is for identifying the standard number and edition or year of issue for all IEC Ex standards associated with the ExTR package.

2.3.4 'Model/type reference' field

The 'Model/type reference' field is for indicating the overall model number or series for the item(s) or product(s) covered by the ExTR package.

- Inclusion of an asterisk '*' is used to indicate variable fields.
- The 'General Product Information' field later in the ExTR Cover is to be used for specific nomenclature details.

Those parts of the nomenclature that do not affect the type of protection do not need to be described in detail, e.g., color, customer codes, etc.

2.3.5 'All testing fully performed by ExTL staff at ExTL address above' field

The 'All testing fully performed by ExTL staff at ExTL address above' field is for indicating whether all testing was fully performed by ExTL staff at the ExTL address noted earlier in the ExTR Cover, or if some testing was fully or partially witnessed by the ExTL staff in accordance with OD 024, *IECEX Rules of Procedure covering testing, or witnessing testing at a manufacturer's or user's facility*.

- Select 'Yes' if all testing was fully performed by ExTL staff at the ExTL address noted earlier in the ExTR Cover.
- Select 'No, See below for additional details' if some testing was fully or partially witnessed by the ExTL staff in accordance with OD 024.

Note: Delete the response not selected, along with the parenthesis.

There is a field later in the ExTR Cover for providing additional details if some testing was fully or partially witnessed by the ExTL staff in accordance with OD 024.

2.3.6 'Rated service temperature range (°C) for Ex Components' field

The 'Rated service temperature range (°C) for Ex Components' field is for indicating the rated service temperature range when the ExTR package addresses an Ex Component.

This row is to be removed if the ExTR package does not address an Ex Component.

2.3.7 'General remarks' field

The 'General remarks' field contains some fixed text that is not intended to be altered.

2.3.8 'Copy of Marking Plate' field

The 'Copy of Marking Plate' field is for inserting a copy of the Marking Plate for the item(s) or product(s) covered by the ExTR package. A copy need not be included if the ExTR package is not supporting an IECEx CoC.

For instances in which a copy of the Marking Plate is not included, a statement is to be entered indicating the reason for the exclusion (such as 'Marking plate content not reviewed, as CoC not issued in conjunction with this ExTR').

2.3.9 'General product information' field

The 'General product information' field is a free-form field for detailing any information that is considered pertinent by the involved ExTL/ExCB regarding the involved item(s) and product(s) and the associated evaluation and testing. This can include nomenclature details, such as a description of the type designations, if applicable.

When an ExTR package addresses a revision or change to a previously issued ExTR package, a description of the revision or change should be added to this field. This added description should be prefixed by "**Details of Change:**", and should be identical to the text that is included as part of the on-line IECEx ExTR at the "Details of change" field, and as part of the on-line IECEx CoC at the "Details of Certificate Changes" field, as applicable. This approach simplifies the ExCB effort regarding these on-line documents.

2.3.10 'In accordance with OD 024, testing not fully performed by ExTL staff at the above ExTL address' field

The 'In accordance with OD 024, testing not fully performed by ExTL staff at the above ExTL address' field is for itemizing each test that is not performed by ExTL staff at the ExTL address noted earlier in the ExTR Cover as follows:

- Indication is to be provided of who performed and/or witnessed the test, and where the testing was performed and/or witnessed.
- If any electronic medium such as video was used for "live" witnessing of any testing, this shall also be detailed.
- Confirmation is to be provided that all such testing not performed by ExTL staff at the ExTL address noted earlier in the ExTR Cover was in accordance with all OD 024 procedures.

If all testing was performed by ExTL staff at the ExTL address noted earlier in the ExTR Cover, then 'N/A' is to be entered in the field.

2.3.11 'National differences considered as part of this evaluation, if any' field

The 'National differences considered as part of this evaluation, if any' field is for indicating if National differences were considered, including general details regarding how they were addressed.

If National differences were considered, explain in general why a Test Report of National Differences was or was not included. The following is an example of text that could be entered to explain why the EN National Differences to IEC 60079-0:2004, IEC 60079-11:2006 and IEC 60079-26:2006 were considered as part of the evaluation and testing of an item or product, but no ExTR of National Differences were issued:

“The change to the product involving the optional housing was reviewed with respect to the National Differences for EN 60079-0:2006, EN 60079-11:2007 and EN 60079-26:2007 and found to be in compliance with these requirements.

There are no National Differences between IEC 60079-11:2006 and EN 60079-11: 2007.

The optional housing does not affect any National Differences between IEC 60079-0:2004 and EN 60079-0:2006, and between IEC 60079-26:2006 and EN 60079-26:2007.”

If no National Differences were considered, 'N/A' is all that needs to be entered in this field.

This field is not for the actual recording of any specific “Result – Remark” details regarding any specific National Differences. The ExTR of National Differences is the document for recording any specific “Result – Remark” details.

2.3.12 'Conditions of Use for Ex Equipment or Schedule of Limitations for Ex Components, if any' field

The 'Conditions of Use for Ex Equipment or Schedule of Limitations for Ex Components, if any' field is for detailing any required “Specific Conditions of Use” for Ex equipment or “Schedule of Limitations” for Ex Components from any of the associated Ex Test Report, Addendum, National Differences or Partial Testing documents that comprise the ExTR package.

If there are no required “Specific Conditions of Use” or “Schedule of Limitations”, then 'N/A' is to be entered in this field.

2.3.13 'Routine tests, if any' field

The 'Routine tests, if any' field is for detailing any required Routine tests from any of the associated Ex Test Report, Addendum, National Differences or Partial Testing documents that comprise the ExTR package.

If there are no required Routine tests, then 'N/A' is to be entered in this field.

2.4 Ex Test Report

2.4.1 General

Each Ex Test Report is part of an ExTR package that may include Addendum, National Differences, Partial Testing and other Ex Test Report documents, along with a single ExTR Cover.

The purpose of an Ex Test Report is to provide a standardized clause-by-clause documentation of the evaluation and testing that verified initial compliance of an item or product with an IEC Ex standard. This standardized format consists of one or more checklist tables and additional narrative content as applicable.

Note 1: Supplemental evaluation and testing to address alternate constructions or modifications are documented as part of an ExTR Addendum. See ExTR Addendum details below.

Note 2: Evaluation and testing to address only select requirements from an IEC Ex standard are documented as part of an ExTR of Partial Testing. See ExTR of Partial Testing below.

All ExTR package documents are compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the overall ExTR package on the ExTR Cover. Signatures of the ExTL compiler, ExTL reviewer and ExCB approver may be handwritten or scanned versions.

An example of a completed Ex Test Report is included in Annex B.

2.4.2 Checklist table(s)

2.4.2.1 General

The checklist table portion of an Ex Test Report is formatted into four columns of a single table beneath an overall heading indicating the involved IEC Ex standard.

The first two columns in each Ex Test Report checklist titled “Clause” and “Requirement - Test” are provided for reference, and should not be modified by the ExTL. For the complete text of the requirement, the ExTL should reference the involved IEC Ex standard.

The next column in each Ex Test Report checklist titled “Result - Remark” is to be completed as part of the evaluation and testing. In this column, a measured value or an explanation shall be entered to detail the results from the “Requirement – Test” column.

The “Result - Remark” column in each Ex Test Report confirms the compliance or declares the particular clause as not applicable (the verdicts can be either “Pass” or “N/A”).

It should be noted that there are different ‘types’ of Numbered Headings (or Clauses) in each Ex Test Report, with differing actions being required of the ExTL when completing the ExTR package based on the ‘type’ of Numbered Heading involved.

2.4.2.2 ‘Types’ of Numbered headings

The following are examples of the different ‘types’ of Numbered Headings that may be presented in an Ex Test Report:

- a) Numbered Heading – No text associated with the heading:** No “Result – Remark” or “Verdict” is applicable since no requirements are associated with the numbered heading in the IEC Ex standard.

IEC _____ - ____			
Clause	Requirement – Test	Result – Remark	Verdict
5	Flameproof joints		

- b) Numbered Heading – Normative text associated with the heading:** Both “Result – Remark” and “Verdict” are applicable since requirements are associated with the numbered heading in the IEC Ex standard.

IEC ____ - __			
Clause	Requirement – Test	Result – Remark	Verdict
9	Light-transmitting parts		

c) **Numbered Heading – Informative text associated with the heading:** No “Result – Remark” or “Verdict” is applicable since associated text is only Informative and not Normative.

IEC ____ - __			
Clause	Requirement – Test	Result – Remark	Verdict
Annex F (Informative)	Mechanical properties for screws and nuts		

Some numbered headings involving Normative requirements make it mandatory that specific details be entered under the “Result – Remark” heading in support of the “Verdict”. A dotted leader as shown in the example below identifies such instances.

IEC ____ - __			
Clause	Requirement – Test	Result – Remark	Verdict
5.2.1	Width of joints (L).....:		

2.4.2.3 ‘Result – Remark’ column

The “Result – Remark” column is for explanatory details that result from the related “Requirement – Test” column, and that support the ultimate “Verdict” column. Examples of such details include a measured value, a test result or an explanatory remark.

It is not mandatory to always include “Result – Remark” text when a “Verdict” is indicated. However, to facilitate acceptance by Receiving ExCBs such that re-testing will not be required, Ex Test Reports shall provide clear, concise and sufficient information that supports the Issuing ExCBs evaluation and testing.

Where appropriate, content in addition to the Ex Test Report checklist table(s) should be considered. The following are examples of such additional content that can be appended to the Ex Test Report:

1. Additional evaluation description provided in a narrative format, including detailed component information.
2. Photos, schematics, parts lists and illustrations.
3. Complete data sheet packages.

If a clause in the Ex Test Report checklist involves a number of sub-clauses, and nothing under the clause or its related sub-clauses are applicable to the involved evaluation and testing, the following is one option that may be taken so as to simplify the completed Ex Test Report:

1. In the “Result – Remark” field for the main clause, a comment to be entered indicating the reason for the entire clause not being applicable;
2. In the “Verdict” field for the main clause, “N/A” to be entered; and
3. All the rows for the related sub-clauses to the main clause to be deleted.

Note: If the involved main clause does not include a “Result – Remark” or “Verdict” field, these can be inserted prior to implementing the above steps.

2.4.2.4 ‘Verdict’ column

The “Verdict” column is for stating the judgment resulting from analysis based on the “Requirements – Test” column, and reflective of the explanatory details under the “Result – Remark” column. Allowed verdict choices are: ‘Pass’ or ‘N/A’. The verdict choice ‘N/A’ indicates that the requirement was determined to be ‘Not applicable’.

2.4.3 Measurement section

In addition to the checklist portion of an Ex Test Report, there is often a need to detail measured values and test results that do not easily fit in the fields under the “Result – Remark” column.

To address such situations, this area is provided after the Checklist section of each blank Ex Test Report for additional narrative remarks and tables of measured values, specific test conditions and test results.

2.5 ExTR of National Differences

Each ExTR of National Differences is part of an ExTR package that may include Ex Test Report, Addendum, Partial Testing and other National Differences documents, along with a single ExTR Cover.

An ExTR of National Differences is to supplement an Ex Test Report or ExTR Addendum, with a separate ExTR of National Differences document issued for each intended country or region. All National Differences of the intended country or region are to be tabulated and remarked upon as part of this document, even those that are not applicable. When multiple countries share the identical National differences to a given IEC Ex standard, then all the countries that share these identical National differences can be included under a single ExTR of National Differences.

Similar to the function of an Ex Test Report, an ExTR of National Differences provides a clause-by-clause documentation of the evaluation and testing that verified compliance of an item or product with an Ex standard. However, while an Ex Test Report (and ExTR Addendum) document compliance with an IEC Ex standard, an ExTR of National Differences documents compliance with a local country or regional Ex standard.

The standard number for the local country or regional Ex standard for which National differences are being addressed may be added in a header row at the top of the checklist portion of the ExTR of National Differences.

ExTRs of National Differences included as part of an ExTR package can address any combination of the following options:

- National differences for all of the IEC Ex standards and editions that are covered under the ExTR package.
- National differences for only some of the IEC Ex standards and editions that are covered under the ExTR package.
- National differences for different editions of the IEC Ex standards that are covered under the ExTR package,

All ExTR package documents are compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the overall ExTR package on the ExTR Cover. Signatures of the ExTL compiler, ExTL reviewer and ExCB approver may be handwritten or scanned versions.

An example of a completed ExTR of National Differences is included in Annex C.

Note: See Ex Test Report details above for related guidance when compiling, approving and issuing an ExTR of National Differences.

2.6 ExTR Addendum

2.6.1 General

Each ExTR Addendum is part of an ExTR package that may include Ex Test Report, National Differences, Partial Testing and other Addendum documents, along with a single ExTR Cover.

The purpose of an ExTR Addendum is to document compliance of a change in the construction of a product already covered by an existing ExTR package. An ExTR Addendum is to supplement a previously issued ExTR package (which may include other previously issued ExTR Addendums).

Only those clauses applicable to the supplemental issue being addressed need to be tabulated and remarked upon as part of this document. An ExTR of National Differences may also supplement this document.

Supplemental modifications that could require an ExTR Addendum include:

- Design changes impacting the method of protection, such as...
 - Changes to the electrical rating
 - New or alternate components added
 - Enclosure material / thickness changes
 - Circuit layout changes
- Addition of model/type numbers as part of a product series
- Name/address changes regarding Applicant/Manufacturer
- Corrections to the original test report documentation

Similar to the function of an Ex Test Report, an ExTR Addendum provides a clause-by-clause documentation of the evaluation and testing that verified compliance of an item or product with an IEC Ex standard. The difference between the two is that the Ex Test Report provides documentation of the initial evaluation and testing of an item or product, while an ExTR Addendum provides documentation of a supplemental modification to an item or product.

The test results presented in an ExTR Addendum are only valid when considered together with the related Ex Test Report that was previously issued (along with any other previously issued ExTR Addendums for the same item or product).

When an ExTR package addresses a revision or change to a previously issued ExTR package, a description of the revision or change should be added to the “General product information” field under the associated ExTR Cover. This added description should be prefixed by “**Details of Change:**”, and should be identical to the text that is included as part of the on-line IECEx ExTR at the “Details of change” field, and as part of the on-line IECEx CoC at the “Details of Certificate Changes” field, as applicable. This approach simplifies the ExCB effort regarding these on-line documents.

Regarding the other fields under the associated ExTR Cover, the content to be entered need only comment on the supplemental modification issue. There is not a need to repeat all the content from the initial evaluation and testing.

All ExTR package documents are compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the overall ExTR package on the ExTR Cover. Signatures of the ExTL compiler, ExTL reviewer and ExCB approver may be handwritten or scanned versions.

An example of a completed ExTR Addendum is included in Annex D.

Note: See Ex Test Report details above for related guidance when compiling, approving and issuing an ExTR Addendum.

2.6.2 ExTR Addendum vs. New Ex Test Report

There are two approaches to addressing a supplemental modification that is submitted to a previously issued Ex Test Report. One approach is to issue an ExTR Addendum. The other approach is to issue a new Ex Test Report that incorporates all content of any previously issued Ex Test Reports, together with any previously issued ExTR Addendums and with the latest supplemental modification.

It is at the discretion of the Issuing ExCB as to which approach to follow for any supplemental modification submittal. Unless the modifications are of a comparatively minor nature, it is recommended that no more than three modifications be allowed to a previously issued ExTR package. After the third modification, a new ExTR package should be issued that incorporates all content of any previously issued Ex Test Reports, together with any previously issued ExTR Addendums and with the latest supplemental modification.

The rationale behind limiting the number of modifications to a previously issued ExTR package is to avoid confusion regarding what is actually covered by the combination of the Ex Test Report and any subsequent ExTR Addendums.

This is not intended to preclude issuing a new ExTR package on a more frequent basis, if the ExCB deems it appropriate. It is a recommended practice to consider issuing a new ExTR package anytime an extensive supplemental modification is being submitted.

2.7 ExTR of Partial Testing

Each ExTR of Partial Testing is part of an ExTR package that may include Ex Test Report, Addendum, National Differences and other Partial Testing documents, along with a single ExTR Cover.

The purpose of an ExTR of Partial Testing is to document compliance of an item or product with only select requirements from an IEC Ex standard. Such ExTR documents provide a clause-by-clause documentation of the evaluation and testing that verified compliance with the select requirements.

The test results presented in an ExTR of Partial Testing are intended to be considered together with a related Ex Test Report for the overall item or product that address all other applicable requirements.

When an item or product is subject to evaluation and testing to only select requirements, the "General product information" field under the associated ExTR Cover for the ExTR of Partial Testing shall clearly identify the nature of the select evaluation and testing.

All ExTR package documents are compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the overall ExTR package on the ExTR Cover. Signatures of the ExTL compiler, ExTL reviewer and ExCB approver may be handwritten or scanned versions.

An example of a completed ExTR of Partial Testing is included in Annex E.

Note: See Ex Test Report details above for related guidance when compiling, approving and issuing an ExTR of Partial Testing.

3 Receipt, Review and Audit of ExTR packages

The effective exchange of ExTR packages between Issuing and Receiving ExCBs is essential to the ability of manufacturers to obtain multi-country or multi-regional certifications based on a single test program and single submission of samples.

To accomplish this IECEX System objective, ExTR documents need to be developed and maintained in a timely and user-friendly fashion, and ExTR packages need to be compiled and approved by the Issuing ExCB with enough detail to clearly support all technical decisions.

If these actions are done effectively (from initial manufacturer request through final ExCB approval), such an approach can help facilitate the ability of a Receiving ExCB to review and audit an ExTR package without requiring re-testing or re-submittal of samples.

However, in accordance with IECEX 02, a Receiving ExCB may request a sample of the Ex equipment and copies of the documentation referred to in an ExTR Cover if such is deemed necessary.

The receiving ExCB also has the right to request an authenticated copy of the ExTR from the issuing ExCB. Authentication may be by affixing the stamp and official signature of the issuing ExCB to a copy of the ExTR or by other means acceptable to the receiving ExCB. See 4.2.3c) of IECEX OD 005-1, *IECEX Quality System Requirements for Manufacturers – Part 1: Guidance on the establishment and maintenance of a quality system*, and ISO/IEC 80079-34, *Explosive atmospheres – Part 34: Application of quality systems for equipment manufacture*, for additional quality details on the control of documents.

Further, in accordance with IECEX 02, should an ExCB receiving an ExTR believe it to contain errors or items needing clarification, the Receiving ExCB shall contact the Issuing ExCB as soon as possible, and always before taking any action directly with the manufacturer or applicant. [The Issuing ExCB shall respond in a timely manner to the Receiving ExCB, recognizing that ultimately, a manufacturer is depending on a timely resolution of the items in question.](#)

[The Issuing ExCB shall either make require that corrections to the ExTR, or gain agreement from the Receiving ExCB that the ExTR is acceptable as written. Should the Issuing and Receiving ExCBs arrive at different conclusions to the involved issues and are unable to reach an agreement, they shall take one of the following four actions:](#)

- a) [The Receiving ExCB shall propose a Draft ExTAG Decision Sheet in accordance with OD 035.](#)
- b) [The Receiving ExCB and Issuing ExCB shall collaborate on a Draft Decision Sheet, with each ExCB including their arguments in support of their interpretations and decisions. The ExTAG members shall be asked to indicate the interpretation that they agree with, in their response.](#)
- a)c) [The case may immediately be referred to the IECEX Board of Appeal.](#)


d) Consult with ExTAG for a decision—

In the case of (a) or (b) above, a comment period of less than 6 weeks is recommended, and may be requested per Clause 2 of OD 035. If the ExTAG members' comments indicate a consensus toward a common position, the Receiving ExCB or Issuing CB may choose to take action prior to formal publication of the Decision Sheet (either accept the ExTR, or revise the ExTR, as appropriate).

~~, the case may be referred to the IECEx Board of Appeal.~~

Redline Version

Annex A – Example of Completed ExTR Cover (1 of 3)

	
IECEX TEST REPORT COVER	
ExTR Reference Number	US/IC/ExTR11.00xx/00
ExTR Free Reference Number.....	11NK12345
Compiled by + signature (ExTL).....	Joe Compiler <i>Joe Compiler</i>
Reviewed by + signature (ExTL)	Jane Reviewer <i>Jane Reviewer</i>
Approved by + signature (ExCB).....	Jim Approver <i>Jim Approver</i>
Date of issue	2011-07-25
Ex Testing Laboratory (ExTL)	International Certification Inc.
<u>Location(s)</u>	
<u>Address(es)</u>	123 Street, New City, IL 12345 USA
Ex Certification Body (ExCB)	International Certification Inc.
Address	123 Street, New City, IL 12345 USA
Applicant's name	International Instrumentation Company
Address	Alter Strasse 123, D-12345 Neu-Stadt, Germany
Standards associated with this ExTR package.....	IEC 60079-0, Edition 5; IEC 60079-11, Edition 5
Clauses considered.....	All clauses considered.
Test procedure	IECEX System
Test Report Form Number	ExTR Cover_4 (released 2010-12)
Test item description	Mobile Phone
Model/type reference.....	Type 1234-**** Type ABCD-****
Code (e.g. Ex __ II__ T_).....	Ex ib IIC T4 - for the Type 1234-**** Ex ic IIC T4 - for the Type ABCD-****
Rating.....	3.5 V battery, 2560 mAh
All testing fully performed by ExTL staff at ExTL address above:	No
<p>Instructions for Intended Use of ExTR Cover: An ExTR Cover is the sole top-level document to associate together all other parts of an IECEX Test Report (ExTR) package. An ExTR package is comprised of an ExTR Cover and one or more associated ExTR documents (which may include Ex Test Reports, ExTR Addendums and ExTR of National Differences). All ExTR package documents are compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the overall ExTR package on this ExTR Cover.</p>	
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Annex A – Example of Completed ExTR Cover (2 of 3)

Manufacturer's name.....:	International Instrumentation Company
Address.....:	Alter Strasse 123, D-12345 Neu-Stadt, Germany
Trademark.....:	IICo
Particulars: Test item vs. Test requirements	
Classification of installation and use..... :	hand-held
Ingress protection	IP20
Rated ambient temperature range (°C)	-20°C to +50°C
General remarks:	
<p>The test results presented in this ExTR package relate only to the item or product tested.</p> <ul style="list-style-type: none"> ▪ "(see Attachment #)" refers to additional information appended to the ExTR package. ▪ "(see appended table)" refers to a table appended to the ExTR package. ▪ Throughout this ExTR package, a point "." is used as the decimal separator. ▪ <i>Where the term "N/A" appears in any part of an ExTR package, it indicates that the associated issue was considered "Not applicable" to the involved evaluation.</i> ▪ <i>In accordance with IECEx 02, a Receiving ExCB may request a sample of the Ex equipment and copies of the documentation referred to in an ExTR Cover.</i> <p>The technical content of this ExTR package shall not be reproduced except in full without the written approval of the Issuing ExCB and ExTL.</p>	
Copy of Marking Plate:	
N/A, Marking plate content not reviewed, as CoC not issued in conjunction with this ExTR	
General product information:	
<p>Mobile Phone, Type 1234-**** is a hand-held, intrinsically safe cellular telephone. Power is provided by a self-contained, rechargeable lithium-polymer battery cell. The variable nomenclature fields are for customer variants not affecting controlled construction.</p> <p>Model Phone, Type ABCD-**** is identical to the Type 1234-**** in construction, but is for Zone 2 locations.</p>	
In accordance with OD 024, testing not fully performed by ExTL staff at the above ExTL address:	
<p>The following tests were performed by Anna Applicant from International Instrumentation Company at the above Applicant address and witnessed by Joe Compiler from International Certification Inc. in accordance with OD 024:</p> <ol style="list-style-type: none"> 1. Test X 2. Test Y 3. Test Z <p>The remainder of the tests were performed by International Certification Inc. ExTL staff at the above ExTL address.</p>	
National differences considered as part of this evaluation, if any:	
<ul style="list-style-type: none"> • This equipment also complies with the requirements of EN 60079-0:2006 and EN 60079-11:2007. • The differences between IEC 60079-0:2007, Edition 5 and EN 60079-0:2009, and between IEC 60079-11:2006, Edition 5 and EN 60079-11:2007, are covered in the IECEx Test Reports of National Differences. 	
"Conditions of Use" for Ex Equipment or "Schedule of Limitations" for Ex Components, if any:	
<ul style="list-style-type: none"> • Connection to the charging/communication port for charging and/or data transfer can only be made outside of an explosive atmosphere. The maximum safe area voltage for this port, U_m, is 12V. • The battery assembly is only to be replaced by a trained technician outside of a hazardous location. Only IIC Type XYZ may be used. • Only IICo Type 7 and Type 8 SD cards may be used in the device. 	
Routine tests, if any:	
N/A	

Annex A – Example of Completed ExTR Cover (3 of 3)**Manufacturer's Documents**

Title:	Drawing No.:	Rev. Level:	Date:
Marking	1-ABCD	-	2011-06-06
Instruction Manual	2-EFGH	0	2011-04-24
Overall Assembly Drawing	3-IJKL	-	2011-04-24
Schematic	4-MNOP	04b	2011-04-20
Component and Circuit Trace Layouts	5-QRST	0	2011-04-24
Parts List	6-UVWX	04b	2011-04-20

Redline Version

Annex B – Example of Completed Ex Test Report (1 of 3)

		IECEX TEST REPORT IEC 60079-0 Explosive atmospheres – Part 0: Equipment – General requirements
ExTR Reference Number	US/IC/ExTR11.00xx/00	
ExTR Free Reference Number.....	11NK12345	
Compiled by + signature (ExTL).....	Joe Compiler	<i>Joe Compiler</i>
Reviewed by + signature (ExTL)	Jane Reviewer	<i>Jane Reviewer</i>
Date of issue	2011-07-25	
Ex Testing Laboratory (ExTL)	International Certification Inc.	
<u>Location(s)</u>		
<u>Address(es)</u>	123 Street, New City, IL 12345 USA	
Applicant's name	International Instrumentation Company	
Address	Alter Strasse 123, D-12345 Neu-Stadt, Germany	
Standard.....	IEC 60079-0:2007, Edition 5	
Test procedure	IECEX System	
Test Report Form Number	ExTR60079-0_5C (released 2010-08)	
<p>Instructions for Intended Use of Ex Test Report: <i>An Ex Test Report provides a clause-by-clause documentation of the initial evaluation and testing that verified compliance of an item or product with an IEC Ex standard. This Ex Test Report is part of an ExTR package that may include other Ex Test Report, Addendum and National Differences documents, along with a single ExTR Cover. An Ex Test Report is to be compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the Ex Test Report as part of the overall ExTR package on the associated ExTR Cover.</i></p>		
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<p>Possible test case verdicts:</p> <p>- test case does not apply to the test item..... : N/A</p> <p>- test item does meet the requirement.....: Pass</p>
<p>General remarks:</p> <p>The test results presented in this Ex Test Report relate only to the item or product tested.</p> <ul style="list-style-type: none"> ▪ "(see Attachment #)" refers to additional information appended to this document. ▪ "(see appended table)" refers to a table appended to this document. ▪ Throughout this document, a point "." is used as the decimal separator. <p>The technical content of this Ex Test Report shall not be reproduced except in full without the written approval of the Issuing ExCB and ExTL.</p>


Annex B – Example of Completed Ex Test Report (2 of 3)

IEC 60079-0			
Clause	Requirement – Test	Result – Remark	Verdict
1	Scope		
2	Normative references		
3	Terms and definitions		
4	Equipment grouping		
4.1	Group I	The device has not been evaluated for Group I.	N/A
4.2	Group II	The device is for Group IIC.	Pass
4.3	Group III	The device has not been evaluated for Group III.	N/A
4.4	Equipment for a particular explosive atmosphere	The device has been evaluated for Group IIC.	N/A
5	Temperatures		
5.1	Environmental influences		Pass
5.1.1	Ambient temperatures	The device is intended for an ambient temperature range of -20°C to $+50^{\circ}\text{C}$. The marking " $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +50^{\circ}\text{C}$ " is provided on the marking label.	Pass
5.1.2	External source of heating or cooling	The device is hand-held and not intended to be connected to a separate source of heating or cooling.	N/A
5.2	Service temperature	Since the device is a hand-held, battery-powered device, the service temperature was considered to be the same as the maximum ambient temperature.	Pass
5.3	Maximum surface temperature		Pass
5.3.1	Determination of maximum surface temperature	The device was assessed for temperature rise in accordance with IEC 60079-11:2006.	Pass
5.3.2	Limitation of maximum surface temperature	The device was assessed for temperature rise in accordance with IEC 60079-11:2006.	Pass
5.3.2.1	Group I electrical equipment		N/A
5.3.2.2	Group II electrical equipment	The device was assigned a temperature class of T4 based on evaluation to IEC 60079-11:2006. See the ExTR for IEC 60079-11:2006 for details.	Pass

Annex B – Example of Completed Ex Test Report (3 of 3)

IEC 60079-0			
Clause	Requirement – Test	Result – Remark	Verdict
5.3.2.3	Group III electrical equipment		N/A
5.3.3	Small component temperature for Group I or Group II electrical equipment	Small components used in the device were assigned a temperature class of T4 based on evaluation to IEC 60079-11:2006. See the ExTR for IEC 60079-11:2006 for details.	Pass
6	Requirements for all electrical equipment		
6.1	General	The device has been evaluated to IEC 60079-0:2007 and IEC 60079-11:2006.	Pass
6.2	Mechanical strength of equipment	The device was subjected to a drop test in accordance with 26.4.3.	Pass
6.3	Opening times	Excluded per Table 1 in IEC 60079-11:2006.	N/A
6.4	Circulating currents	The device is hand-held.	N/A
		.	
		.	
		.	
30	Instructions		
30.1	General	The instructions contain the necessary information.	Pass
30.2	Cells and batteries	The instructions contain battery replacement instructions and warnings.	Pass
Annex A (Normative)	Supplementary requirements for cable glands	Excluded per Table 1 in IEC 60079-11:2006.	N/A
Annex B (Normative)	Requirements for Ex components		N/A
Measurement Section, including Additional Narrative Remarks (as deemed applicable)			
N/A			

Annex C – Example of Completed ExTR of National Differences (1 of 2)

 IECEX TEST REPORT of NATIONAL DIFFERENCES	
ExTR Reference Number	US/IC/ExTR11.00xx/00
ExTR Free Reference Number.....	11NK12345
Compiled by + signature (ExTL).....	Joe Compiler <i>Joe Compiler</i>
Reviewed by + signature (ExTL)	Jane Reviewer <i>Jane Reviewer</i>
Date of issue	2011-07-25
Ex Testing Laboratory (ExTL) <u>Location(s)</u>	International Certification Inc.
Address(es)	123 Street, New City, IL 12345 USA
Applicant's name	International Instrumentation Company
Address	Alter Strasse 123, D-12345 Neu-Stadt, Germany
Country/Region	Europe: Switzerland (CH), Czech Republic (CZ), Germany (DE), Denmark (DK), Finland (FI), France (FR), United Kingdom (GB), Hungary (HU), Italy (IT), the Netherlands (NL), Norway (NO), Romania (RO), Sweden (SE) and Slovenia (SI)
Standards.....	IEC 60079-0, Edition 5
Test procedure	IECEX System
Test Report Form Number	ExTR National Differences_2 (released 2010-08)
Instructions for Intended Use of ExTR of National Differences: <i>An ExTR of National Differences is to supplement an ExTR or ExTR Addendum, with a separate such document issued for each intended country / region. All National Differences of the intended country / region are to be tabulated and remarked upon as part of this document, even those that are not applicable. An ExTR of National Differences is to be compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the ExTR of National Differences as part of the overall ExTR package on the associated ExTR Cover.</i>	
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Possible test case verdicts: - test case does not apply to the test item	: N/A
- test item does meet the requirement.....	: Pass
General remarks: The test results presented in this ExTR of National Differences relate only to the item or product tested. Only clauses and manufacturer's documents impacted by this document are detailed. <ul style="list-style-type: none"> ▪ "(see Attachment #)" refers to additional information appended to this document. ▪ "(see appended table)" refers to a table appended to this document. ▪ Throughout this document, a point is used as the decimal separator. The technical content of this ExTR of National Differences shall not be reproduced except in full without the written approval of the Issuing ExCB and ExTL.	

Annex C – Example of Completed ExTR of National Differences (2 of 2)

EN 60079-0:2009			
Clause	Requirement – Test	Result – Remark	Verdict
Annex ZA (Normative)	Normative references to international publications with their corresponding European publications	Considered as applicable.	Pass
Annex ZY	Equipment groups and marking examples		
Annex ZY	Equipment groups	The devices are for Group IIC, Categories 1 and 2.	Pass
Annex ZY	Instructions	Provided as such.	Pass
Annex ZY	Marking	Provided as such.	Pass
Annex ZZ	Additional information in EN 60079-0 regarding the coverage of Essential Requirements of EC Directives.		
Annex ZZ	ESR 1.3.5	The device does not contain pressure. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 1.5.1	The device does not perform a safety related function with respect to explosive atmospheres. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 1.5.2	The device does not perform a safety related function with respect to explosive atmospheres. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 1.5.3	The device does not perform a safety related function with respect to explosive atmospheres. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 1.5.4	The device does not perform a safety related function with respect to explosive atmospheres. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 1.5.5	The device does not perform a measuring function for explosion protection. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 1.5.6	The device does not perform a measuring function for explosion protection. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 1.5.7	The device does not perform a measuring function for explosion protection. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 1.5.8	The device does not perform a safety related function with respect to explosive atmospheres. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 1.6.1	The device is battery powered. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 1.6.3	The device is battery powered. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 1.6.5	The device does not monitor explosive atmospheres. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 3.0.1	The device is not a protective system. <input type="checkbox"/>	N/A <input type="checkbox"/>

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Annex ZZ	ESR 3.1.7	The device is not a protective system. <input type="checkbox"/>	N/A <input type="checkbox"/>
Annex ZZ	ESR 3.1.8	The device is not a protective system. <input type="checkbox"/>	N/A <input type="checkbox"/>

Measurement Section, including Additional Narrative Remarks (as deemed applicable)

N/A

Annex D – Example of Completed ExTR Addendum (1 of 2)


	
IECEX TEST REPORT ADDENDUM	
ExTR Reference Number	US/IC/ExTR11.00xx/00
ExTR Free Reference Number	11NK12345
Compiled by + signature (ExTL)	Joe Compiler <i>Joe Compiler</i>
Reviewed by + signature (ExTL)	Jane Reviewer <i>Jane Reviewer</i>
Date of issue	2011-07-25
Ex Testing Laboratory (ExTL)	International Certification Inc.
<u>Location(s)</u>	
<u>Address(es)</u>	123 Street, New City, IL 12345 USA
Applicant's name	International Instrumentation Company
Address	Alter Strasse 123, D-12345 Neu-Stadt, Germany
Standards	IEC 60079-0, Edition 4
Test procedure	IECEX System
Test Report Form Number	ExTR Addendum_2 (released 2010-08)
<p>Instructions for Intended Use of ExTR Addendum: <i>An ExTR Addendum is to supplement a previously issued ExTR package. Only those clauses applicable to the supplemental issue being addressed are to be tabulated and remarked upon as part of this document. An ExTR of National Differences may also supplement this document. An ExTR Addendum is to be compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the ExTR Addendum as part of the overall ExTR package on the associated ExTR Cover.</i></p>	
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<p>Possible test case verdicts:</p> <p>- test case does not apply to the test item</p> <p>- test item does meet the requirement</p>
<p>General remarks:</p> <p>The test results presented in this ExTR Addendum relate only to the item or product tested, and are only valid when considered together with the related Ex Test Report that was previously issued, along with any previously issued ExTR Addendums for the same item or product.</p> <p>Only clauses and manufacturer's documents impacted by this document are detailed.</p> <ul style="list-style-type: none"> ▪ "(see Attachment #)" refers to additional information appended to this document. ▪ "(see appended table)" refers to a table appended to this document. ▪ Throughout this document, a point "." is used as the decimal separator. <p>The technical content of this ExTR Addendum shall not be reproduced except in full without the written approval of the Issuing ExCB and ExTL.</p>

Annex D – Example of Completed ExTR Addendum (2 of 2)

Clause	Requirement – Test	Result – Remark	Verdict
5	TEMPERATURES		
5.1	Environmental influences		
5.1.1	Ambient temperature	High voltage flameproof enclosures are for use in an ambient temperature range of -20°C to +55°C. This ambient temperature range is marked on the enclosures.	Pass
5.2	Service temperature	Service temperature is determined at the maximum ambient of +55°C and maximum rated conditions for the enclosures. Conductor size on B series is being decreased. Temperature tests previously conducted on A series were considered representative of this change. Conductor size changes on Y series were considered covered by temperature tests previously conducted on X series.	Pass
5.3	Maximum surface temperature		
5.3.1	Determination of maximum surface temperature	Maximum surface temperature was determined by the voltage chosen per Clause 26.5.1 at the maximum ambient of +55°C. Conductor size on B series is being decreased. Temperature tests previously conducted on A series were considered representative of this change. Conductor size changes on Y series were considered covered by temperature tests previously conducted on X series.	Pass
5.3.2	Limitation of maximum surface temperature		
5.3.2.2	Group II electrical apparatus	High voltage flameproof enclosures are marked with a temperature class in accordance with Table 2. Enclosures for use in an ambient temperature range of -20°C to +55°C are marked with a T6 temperature code.	Pass
5.4	Surface temperature and ignition temperature	The maximum surface temperature does not exceed the temperature class.	Pass
Measurement Section, including Additional Narrative Remarks (as deemed applicable)			
N/A			

Annex E – Example of Completed ExTR of Partial Testing (1 of 2)

 IECEX TEST REPORT of PARTIAL TESTING	
ExTR Reference Number	US/IC/ExTR11.00xx/00
ExTR Free Reference Number.....	11NK12345
Compiled by + signature (ExTL).....	Joe Compiler <i>Joe Compiler</i>
Reviewed by + signature (ExTL)	Jane Reviewer <i>Jane Reviewer</i>
Date of issue	2011-07-25
Ex Testing Laboratory (ExTL)	International Certification Inc.
<u>Location(s)</u>	
<u>Address(es)</u>	123 Street, New City, IL 12345 USA
Applicant's name	International Instrumentation Company
Address	Alter Strasse 123, D-12345 Neu-Stadt, Germany
Standards	IEC 60079-0, Edition 6
Test procedure	IECEX System
Test Report Form Number	ExTR Partial Testing (released 2011-07)
Instructions for Intended Use of ExTR of Partial Testing: An ExTR of Partial Testing provides a clause-by-clause documentation of the evaluation and testing that verified compliance of an item or product with only select requirements from an IEC Ex standard. This ExTR of Partial Testing is part of an ExTR package that may include other Ex Test Report, Addendum, National Differences and Partial Testing documents, along with a single ExTR Cover. An ExTR of Partial Testing is to be compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the ExTR of Partial Testing as part of the overall ExTR package on the associated ExTR Cover.	
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Possible test case verdicts: - test case does not apply to the test item..... : N/A - test item does meet the requirement.....: Pass	
General remarks: The test results presented in this Ex Test Report relate only to the item or product tested. <ul style="list-style-type: none"> ▪ "(see Attachment #)" refers to additional information appended to this document. ▪ "(see appended table)" refers to a table appended to this document. ▪ Throughout this document, a point "." is used as the decimal separator. The technical content of this Ex Test Report shall not be reproduced except in full without the written approval of the Issuing ExCB and ExTL.	

Annex E – Example of Completed ExTR of Partial Testing (2 of 2)

IEC 60079-0			
Clause	Requirement – Test	Result – Remark	Verdict
7.3	Resistance to light	Enclosure material is not otherwise protected from exposure to light. Material was tested in accordance with the ultraviolet light exposure requirements (f1) in ANSI/UL 746C and considered satisfactory. See attached data sheet.	Pass
Measurement Section, including Additional Narrative Remarks (as deemed applicable)			
N/A			

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