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

**Title:** **Re-assessment Report for the continued acceptance** **of DEKRA Testing and Certification GmbH (DTCG), Germany, an Accepted Certification Body, ExCB, and an Accepted Test Laboratory, ExTL, within the IECEx Equipment Scheme 02 and an Accepted ExCB in the Certified service facility scheme, 03.**

**Circulation to: Members of the IECEx Management Committee, ExMC**

**INTRODUCTION**

In accordance with the 5 Year re-assessment plan for the surveillance and monitoring of bodies within the IECEx System, the following document contains the Re-assessment Report for the continued acceptance of DEKRA Testing and Certification GmbH (DTCG), Germany, an Accepted Certification Body, ExCB, and an Accepted Test Laboratory, ExTL, within the IECEx Equipment Scheme 02 and an Accepted ExCB in the Certified service facility scheme, 03.

This report is hereby submitted for endorsement during the 2025 Kyoto ExMC Meeting.

**Chris Agius**

|  |  |
| --- | --- |
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IEC System for certification to standards relating to equipment for use in Explosive Atmospheres (IECEx System)

IECEx Assessment Report Form, F-003

IECEx assessment report form for use by IECEx assessment teams to report assessments conducted according to the relevant IECEx assessment procedures of:

Operational Document IECEx OD 003-2 for the Certified Equipment Scheme

Operational Document IECEx OD 316-\* for the Certified Service Facility Scheme

Operational Document IECEx OD 422 for the IECEx Conformity Mark Licensing Scheme

Operational Document IECEx OD 501 for the Personnel Competence Scheme

IECEx ExCB/ExTL Assessment Report for

DEKRA Testing and Certification GmbH (DTCG), Germany

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

CONTENTS

[1 Assessment information 6](#_Toc190761743)

[1.1 Type of body covered by this assessment: 6](#_Toc190761744)

[1.2 Type of assessment: 6](#_Toc190761745)

[1.3 Details of body 6](#_Toc190761746)

[1.3.1 Country 6](#_Toc190761747)

[1.3.2 Name of body 6](#_Toc190761748)

[1.3.3 Name and title of nominated principal contact 6](#_Toc190761749)

[1.4 Assessment information 6](#_Toc190761750)

[1.4.1 Members of the assessment team 6](#_Toc190761751)

[1.4.2 Place(s) of assessment 6](#_Toc190761752)

[1.4.3 Assessment date(s) 7](#_Toc190761753)

[1.5 Application information and background information on the assessment 7](#_Toc190761754)

[1.6 Scopes 7](#_Toc190761755)

[1.6.1 ExCB scope for equipment certification scheme 7](#_Toc190761756)

[1.6.2 ExTL scope 7](#_Toc190761757)

[1.6.3 ATF Scope 7](#_Toc190761758)

[1.6.4 ExCB scope for Service Facilities Scheme 7](#_Toc190761759)

[1.7 ExCB scope for Conformity Mark Licensing Scheme 8](#_Toc190761760)

[1.8 ExCB scope for IECEx Personnel Competence Scheme 8](#_Toc190761761)

[2 Common information 9](#_Toc190761762)

[2.1 Legal entity of body 9](#_Toc190761763)

[2.2 Financial support 9](#_Toc190761764)

[2.3 History 9](#_Toc190761765)

[2.4 Documentation 9](#_Toc190761766)

[2.4.1 Quality manual 9](#_Toc190761767)

[2.4.2 Procedures 10](#_Toc190761768)

[2.4.3 Work instructions 10](#_Toc190761769)

[2.4.4 Records (including test records where relevant) 10](#_Toc190761770)

[2.4.5 Document change control 10](#_Toc190761771)

[2.5 Confidentiality 11](#_Toc190761772)

[2.6 Communication with public and customers (Hard copy and Electronic) 11](#_Toc190761773)

[2.7 Recognitions and agreements 11](#_Toc190761774)

[2.8 Internal audit 11](#_Toc190761775)

[2.9 Management review 11](#_Toc190761776)

[2.10 Contracting, subcontracting and witness testing 12](#_Toc190761777)

[2.10.1 Contracting 12](#_Toc190761778)

[2.10.2 Subcontracting 12](#_Toc190761779)

[2.10.3 Off-site and Witness testing 12](#_Toc190761780)

[2.11 Training and competence 12](#_Toc190761781)

[2.12 Complaints and appeals (including appeals to IECEx) 13](#_Toc190761782)

[2.13 Impartiality 13](#_Toc190761783)

[2.14 Active involvement in development of Decision Sheets 13](#_Toc190761784)

[2.15 Special facts to be noted 13](#_Toc190761785)

[2.16 Supporting documentation 14](#_Toc190761786)

[2.17 Recommendations 14](#_Toc190761787)

[3 ExCB for IECEx Certified Equipment Scheme 15](#_Toc190761788)

[3.1 Assessment references 15](#_Toc190761789)

[3.1.1 General references 15](#_Toc190761790)

[3.1.2 Additional references applied for this assessment 15](#_Toc190761791)

[3.2 Candidate ExCB persons interviewed 15](#_Toc190761792)

[3.3 Associated ExTL(s) 16](#_Toc190761793)

[3.4 Associated certification functions 16](#_Toc190761794)

[3.5 National marks and certificates 16](#_Toc190761795)

[3.6 Standards accepted 16](#_Toc190761796)

[3.7 National differences to IEC standards 16](#_Toc190761797)

[3.8 Organisation 16](#_Toc190761798)

[3.8.1 Names, titles and experience of the senior executives 16](#_Toc190761799)

[3.8.2 Name, title and experience of the quality management representative 16](#_Toc190761800)

[3.8.3 Name and title of signatories for certification 17](#_Toc190761801)

[3.8.4 Other employees in ExCB activity 17](#_Toc190761802)

[3.9 Organizational structure 17](#_Toc190761803)

[3.10 Indemnity insurance 17](#_Toc190761804)

[3.11 Resources 17](#_Toc190761805)

[3.12 Committees (such as governing or advisory boards) 17](#_Toc190761806)

[3.13 Certification operations 18](#_Toc190761807)

[3.13.1 National approval/certification methods 18](#_Toc190761808)

[3.13.2 Certification policy 18](#_Toc190761809)

[3.13.3 Application for certification 18](#_Toc190761810)

[3.13.4 Certification decision 18](#_Toc190761811)

[3.13.5 Suspension and cancellation of certificates 18](#_Toc190761812)

[3.14 Certificates issued 18](#_Toc190761813)

[3.15 National accreditation 20](#_Toc190761814)

[3.16 Assessment of manufacturers and issue of QARs 20](#_Toc190761815)

[3.17 Comments (including issues found during assessment) 21](#_Toc190761816)

[4 ExTL for IECEx Certified Equipment Scheme 22](#_Toc190761817)

[4.1 Assessment references 22](#_Toc190761818)

[4.1.1 General references 22](#_Toc190761819)

[4.1.2 Additional references applied for this assessment 22](#_Toc190761820)

[4.2 Candidate ExTL persons interviewed 22](#_Toc190761821)

[4.3 Associated ExCB(s) 22](#_Toc190761822)

[4.4 Organisation 23](#_Toc190761823)

[4.4.1 Names, titles and experience of the senior executives 23](#_Toc190761824)

[4.4.2 Name, title and experience of the quality management representative 23](#_Toc190761825)

[4.4.3 Other employees in ExTL activity 23](#_Toc190761826)

[4.5 Organizational structure 24](#_Toc190761827)

[4.6 Resources 24](#_Toc190761828)

[4.7 Test reports issued 24](#_Toc190761829)

[4.8 National accreditation 26](#_Toc190761830)

[4.9 Calibration 26](#_Toc190761831)

[4.10 Tests witnessed during the assessment visit 26](#_Toc190761832)

[4.11 Participation in IECEx Proficiency Testing Programs 27](#_Toc190761833)

[4.12 Comments (including issues found during assessment) 27](#_Toc190761834)

[5 ATF for IECEx Certified Equipment Scheme 28](#_Toc190761835)

[6 ExCB for Certified Service Facilities Scheme 28](#_Toc190761836)

[6.1 Assessment references 28](#_Toc190761837)

[6.1.1 General references 28](#_Toc190761838)

[6.1.2 Additional references applied for this assessment 28](#_Toc190761839)

[6.2 Candidate ExCB persons interviewed 28](#_Toc190761840)

[6.3 National marks and certificates 29](#_Toc190761841)

[6.4 Standards accepted 29](#_Toc190761842)

[6.5 National differences to IEC standards 29](#_Toc190761843)

[6.6 Organisation 29](#_Toc190761844)

[6.6.1 Names, titles and experience of the senior executives 29](#_Toc190761845)

[6.6.2 Name, title and experience of the quality management representative 29](#_Toc190761846)

[6.6.3 Name and title of signatories for certification 30](#_Toc190761847)

[6.6.4 Other employees in ExCB activity 30](#_Toc190761848)

[6.7 Organizational Structure 30](#_Toc190761849)

[6.8 Indemnity insurance 30](#_Toc190761850)

[6.9 Resources 30](#_Toc190761851)

[6.10 Committees (such as governing or advisory boards) 30](#_Toc190761852)

[6.11 Certification operations 30](#_Toc190761853)

[6.11.1 National approval/certification Methods 30](#_Toc190761854)

[6.11.2 Certification policy 30](#_Toc190761855)

[6.11.3 Application for certification 31](#_Toc190761856)

[6.11.4 Certification decision 31](#_Toc190761857)

[6.11.5 Suspension and cancellation of certificates 31](#_Toc190761858)

[6.12 Statistics 31](#_Toc190761859)

[6.13 National accreditation 31](#_Toc190761860)

[6.14 Assessment of service facilities and issue of FARs 31](#_Toc190761861)

[6.15 Comments (including issues found during assessment) 32](#_Toc190761862)

[7 IECEx Conformity Mark Licensing Scheme 33](#_Toc190761863)

[8 ExCB for IECEx Personnel Competence Scheme 33](#_Toc190761864)

[9 Annexes 33](#_Toc190761865)

[Annex A Scope for IECEx Certified Equipment Scheme 34](#_Toc190761866)

[A.1 Current standards 34](#_Toc190761867)

[A.2 Superseded standards 35](#_Toc190761868)

[Annex B Overall Organisation Chart 37](#_Toc190761869)

[Annex C Organisation Chart of ExCB/ExTL 38](#_Toc190761870)

[Annex D Accreditation Certificate for ISO/IEC 17065 39](#_Toc190761871)

[Annex E Accreditation Certificate for ISO/IEC 17025 40](#_Toc190761872)

# Assessment information

## Type of body covered by this assessment:

|  |  |
| --- | --- |
| ExCB for IECEx Certified Equipment Scheme |  |
| ExTL for IECEx Certified Equipment Scheme |  |
| ATF for IECEx Certified Equipment Scheme |  |
| ExCB for IECEx Certified Service Facilities Scheme |  |
| ExCB for IECEx Conformity Mark Licensing System |  |
| ExCB for IECEx Certification of Personnel Competency Scheme |  |

NOTE 1 ExCB - IECEx Certification Body

NOTE 2 ExTL - IECEx Testing Laboratory

NOTE 3 ATF - Additional Testing Facility

## Type of assessment:

|  |  |
| --- | --- |
| Pre-assessment for candidate body |  |
| Initial assessment for candidate body |  |
| Surveillance |  |
| Re-assessment |  |
| Scope extension |  |

## Details of body

### Country

Germany

### Name of body

DEKRA Testing and Certification GmbH, Germany, hereafter referred to “**DTCG**”.

### Name and title of nominated principal contact

|  |  |  |
| --- | --- | --- |
| Name | Title | E-mail address |
| Dr. Ing Michael Wittler | Head Explosion Protection Electrotechnology | Michael.wittler@dekra.com |
| Dr. Ing Franz Eickhoff | Certification Manager | Franz.eickhoff@dekra.com |

## Assessment information

### Members of the assessment team

|  |  |
| --- | --- |
| Name | Role |
| Xu Jianping | IECEx Lead Assessor |
| Kevin Wolf | IECEx Expert Assessor |

### Place(s) of assessment

|  |  |
| --- | --- |
| DEKRA Testing and Certification GmbH  (DTCG) | **Main location:**  Dinnendahlstrasse 9, 44809 Bochum, Germany  (POB 102748, 44727 Bochum, GERMANY)  (Without gas detection)  **Additional location for testing:**  Adlerstrasse 29, 45307 Essen, Germany  (Gas detection only) |

### Assessment date(s)

Monday, 11 to Wednesday, 13 November 2024

## Application information and background information on the assessment

This is an on-site five-year re-assessment conducted based on existing scope of standards with no scope extension, including operation of IECEx 02 certified equipment scheme and IECEx 03-5 certified service facility scheme.

## Scopes

### ExCB scope for equipment certification scheme

The scope for the ExCB is shown in Annex A of this report. The scope of standards is covered by its integral ExTL and the associated ExTL (DEKRA Certification B.V., Netherlands).

NOTE 1 Unless otherwise indicated, earlier editions of standards (even if with a different number) are considered to be covered in the above scope for the purposes of the assessment.

### ExTL scope

The integral ExTL scope is the same as for the ExCB.

### ATF Scope

Not applicable.

### ExCB scope for Service Facilities Scheme

Equipment services, standards and associated protection techniques.

|  |  |
| --- | --- |
| IECEx 03-2 Design |  |
| IECEx 03-3 Installation |  |
| IECEx 03-4 Inspection and maintenance |  |
| IECEx 03-5 Repair and overhaul |  |
| **With the following types of protection** |  |
| Flameproof Enclosures "d" | Current |
| Increased Safety "e" | Current |
| Type of Protection "n" | Current |
| Intrinsic Safety "i" | Current |
| Liquid immersion "o" | Current |
| Pressurized enclosures "p" | Current |
| Protection by enclosure "t" | Current |
| Dusts to IEC 61241-1 "tD" | Current |
| Dusts to IEC 61241-1-1 "DIP" | Current |
| Powder filling “q” | Current |
| Other (eg. Non-electrical) | Current |

## ExCB scope for Conformity Mark Licensing Scheme

Not applicable.

## ExCB scope for IECEx Personnel Competence Scheme

Not applicable.

# Common information

## Legal entity of body

DEKRA Testing and Certification GmbH (DTCG) has a legal entity from the “Commercial Register of Stuttgart” under the number HRB 759624. The legal entity address is registered in Stuttgart with the certification body and testing laboratories addresses in Bochum and partly in Essen Germany, as shown on national accreditation certificates to ISO/IEC 17065 and ISO/IEC 17025. See Annex D and Annex E.

A copy of the latest legal document dated 20 July 2023 was provided and reviewed during site assessment. The scope of business committed covers quality and conformity assessment services.

## Financial support

DEKRA Testing and Certification GmbH has its income from testing, certification, inspection and training.

## History

DTCG has a long history of more than 130 years. The main historical milestones are as follows:

1894 Founded as BVS, Mine safety testing body

Since 1894 Investigations into the origin of explosions gas and dust explosions especially in hard coal mining underground

1912 Starting with certification of explosion proof equipment for coal mines and other industries

~ 1920 Transfer of research results into German rules and standards

1950ies Development from research institute to approved testing body and service provider

1980 Accreditation under European Directives for explosion proof equipment for coal mines and other industries

1999 Accepted as ExTL and ExCB under IECEx system

2006 Acknowledgement as Approved Inspection Body for explosion protection according to ATEX-Directive 99/92/EC

Since 2007 Member of DEKRA group

Since 2019 Fusion with DEKRA Testing and Certification GmbH in Stuttgart, with no changes in ExCB and ExTL.

DTCG is a Notified Body in European Certification System. Its Notified Body (certification body) number is 0158 for ATEX Directive 2014/34/EU. DTCG is also an accepted inspection body according to ISO/IEC 17020. For further information on notification, see the New Approach Notified and Designated Organizations (NANDO).

## Documentation

### Quality manual

DEKRA Testing and Certification GmbH establishes, maintains and implements comprehensive management system according to ISO/IEC 17025:2017, ISO/IEC 17065:2012 and ISO/IEC 17020:2012, which covers the complete organisation of DEKRA Testing and Certification GmbH including the certification body, the testing laboratory and the inspection body.

It applies to all locations, including Bochum (complete IECEx scope without gas detection) and Essen (gas detection only).

The overall management system consists of the Quality Manual Handbook (QMH), dated 2024-09-10) and the applicable documents including process descriptions (PB), appendices (A) and forms (F). The DTCG management system is available to all the relevant employees via the IT system.

The management system was reviewed during the assessment and found to meet the requirements of the IECEx, in noting the relevant procedures properly referenced with IECEx 02 and IECEx 03 Rules, Procedures, and IECEx Operational Documents.

### Procedures

Procedures are available and controlled for the three main divisions dealing with IECEx, by using the designations: ExE – electrical, GAD – gas detection, and ExA – non-electrical.

There are a series of documented procedures relating to operation of the testing laboratory and certification body at the time of the assessment. Especially the dedicated procedure Q-PB-65-IECEx Requirements of IECEx, dated 2020-01-17 addressed how to implement the special IECEx requirements, including the witness testing per IECEx OD 024 and commenting on ExTAG Decision Sheet.

The relevant procedures reviewed during the assessment were found to meet the requirements of the IECEx.

### Work instructions

DEKRA Testing and Certification GmbH has two high-level work instructions, one for the testing laboratory “Q-PB-25 Laboratory”, dated 2024-09-10, and one for the certification body, “Q-PB-65 Certification”, dated 2023-09-26.

At the time of the assessment there are a series of work instructions (procedures) for specific testing items according to relevant IEC/ISO standards for operation of the IECEx, which are listed in the completed Technical Capability Document (TCD). Examples of the work instructions were reviewed during the assessment, and found to meet the requirements of the IECEx.

### Records (including test records where relevant)

All the records are maintained and stored and are partly a mixture of hard copy and electronic records. The archiving process in place for all records is described in the procedure “QMH-05 Chapter 5.4 Control of Records”, dated 2021-12-10 and the Annex QA-A-0 Record Retention Period, Rev 3, 2023-05-05.

The procedure addressed the document retention requirements for all records in both electronic and hard copy relating to Ex testing and certification activities, which is in line with the requirements of IECEx OD 207.

The detailed back-up processes for all the electronic records are described in the procedure Q-PB-0 information management/IT-system, Rev 4, dated 2022-10-21, and managed by the IT department of the mother Company Dekra.

### Document change control

Document change control is described in QMH-05, Chapter 5.3 Control of Documents, dated 2021-12-10. It requires that three people be involved in all changes to the quality manual and two people for all other documentation, with a requirement for a yearly check for accuracy and validity.

Example of the relevant documents were reviewed during the assessment, and found to fulfil the process requirements as specified in Chapter 5.3 of QMH-05, and found to meet the requirements of the IECEx.

## Confidentiality

The policy on confidentiality is described in QMH-01, Chapter 1.2 Confidentiality, dated 2022-01-13. On the Dekra Website there is an open document Q-A-0 AGB General Terms & Conditions, which also includes a statement on confidentiality.

The policy requires each employee signs a document concerning confidentiality as part of their initial contract and all staff sign the document Q-F-0 Commitment to impartiality, independent and confidentiality. In addition, there is a separate contract by using the forms Q-F-0 Subcontracted Quality Auditors and Q-F-21 Statement Auditor, covering confidentiality.

The policy and examples of contracts signed with internal staff, contracted auditors and external members of Advisory Board were reviewed during the assessment, and found meet with DTCG’s quality management system and IECEx requirements.

## Communication with public and customers (Hard copy and Electronic)

There is basic information available on DEKRA’s website that they can offer IECEx services:

* <https://dekra-testing-and-certification.de/en/>, and
* <https://www.dekra.de/de/elektrische-betriebsmittel/> .

## Recognitions and agreements

DEKRA Testing and Certification GmbH holds mutual recognition agreements with PTB (Germany), NEPSI (China), Karandikar Lab. (India), ERTL East (India), KGS (South Korea), NANIO (Russia) and Mining Administration (China). Acceptance is granted by MSHA (USA) and United States Coast Guard (USCG).

## Internal audit

DEKRA Testing and Certification GmbH implements its internal audits once a year by a series of audits with coverage of business scope as a testing and certification body according to the Quality Management Handbook, Chapter 5.3 Internal Audits, dated 2021-12-10 and Q-PB-0 Interne Audits, dated 2019-09-03. There is a requirement on audits with witness of tests and manufacturer auditing.

The latest internal audits for the testing laboratory and certification body were conducted between 2024-03-11 and 2024-06-21, with coverage of the divisions of electrical (ExE), non-electrical (ExA) and gas detection (GAD). There are no non-conformities were raised, with 5 recommendations for testing laboratory and 3 for certification body.

The procedure and audit records with corrective actions were reviewed, and found to be satisfactory, especially in noting the audits auditing the compliance of IECEx requirements.

## Management review

The management review is performed yearly according to the Quality Management Handbook, Chapter 5.8, Rev 2, dated 10 December 2021, and is completed by top management using the input of appropriate staff.

The last management review dated 2024-03-07 includes the year 2023. The procedure and the minutes of 2023 management review were reviewed during the assessment, and noted that the management review covers the compliance of all the relevant activities, including Ex testing and certification activities. These fulfils the requirements of DTCG’s quality management systems and the requirements of the IECEx.

## Contracting, subcontracting and witness testing

### Contracting

The issue of contracting/subcontracting is described in the QMH-02, Chapter 2.7 Subcontracting, dated 2021-12-01. The document Q-A-21 List of Auditors, dated 2024-09-30 shows all auditors of DTCG and their activities for which they are authorised.

At the time of the assessment DEKRA Testing and Certification GmbH currently has seven external assessors qualified and contracted to perform IECEx QARs, and partly IECEx FARs.

### Subcontracting

Subcontractors performing work related to IECEx are listed in the document Q-A-0 List of Subcontractors, dated 2024-07-10. This document includes information on accreditation of the qualified subcontractors.

The following tests are, or may be, subcontracted by the body:

|  |  |  |
| --- | --- | --- |
| Standard | Clause | Test |
| IEC 60079-7 | 6.6.3 | Shock test |
| IEC 60079-0 | 26.5 | Thermal tests on large electrical engines |
| IEC 60079-7 | 6.2 | Rotating electrical machines |
| IEC 60079-15 (Ed.4.0) | 22.13 | Additional ignition tests for large or high-voltage machines |
| IEC 60079-28 | 6 | Optical ignition tests |
| IEC 60079-0 | 26.10 | UV resistance test |
| IEC 60079-30-1 | 5.1.9 - 5.1.16 | Tests on heat tracing cable |
| IEC 60079-11 | 9.7.2.2 | Dry heat cycle |

None of the tests including in subcontracting are listed in the TCD as requiring minimum test equipment. The divisions of Gas Detection and Non-Electrical do not have any subcontractors for IECEx work.

More details, including bodies to whom tests will be subcontracted, details of accreditation of those bodies and details of how the subcontracted bodies are checked, are included in the site assessment report (F-004).

### Off-site and Witness testing

The process is described in Q-PB-65-IECEx “Requirements of IECEx”, Rev.0, dated 2020-01-17, which is adjusted on 24 October 2024 for properly linking to the new version of the IECEx Website.

The form (Q-F-25-ExE OD014) used for IECEx OD 024 site assessments is in the document control system. All the assessment records are well stored and maintained.

The process for implementation of OD 024 has been used on several occasions by DEKRA Testing and Certification GmbH. Examples of agreements signed with qualified testing facilities according to IECEx OD 024 were reviewed and found to be satisfactory. The assessor checked that Examples of the qualified testing facilities and scopes were consistently registered in IECEx website according to the latest edition of IECEx OD 024 Ed.4.0. This fulfils the requirements of the IECEx.

## Training and competence

All staff employed are selected for qualifications and/or experience relevant to their responsibilities. Each member of staff has a full job description, which comprehensively defines their responsibilities, job function, qualification requirements and their position within the organisation. The detailed process is addressed in Clause 3.1, QMH-03, Rev 4, dated 2021-12-10.

On quarterly basis there is training/experience exchange of staff in the ExCB and ExTL on the operations, outcome of audits, revised standards and procedures related to IECEx.

Example of staff training and competence qualification process was reviewed, and found to meet the requirements of DTCG’s management system and the IECEx.

Details of staff competencies against standards are included in the site assessment report (F-004). The assessor noted that provision on separation are available in the document Q-A-0 Technical Certifier Functional Description, Rev.0, dated 2021-09-10, which requires someone involved in the ExTL testing and evaluation process could not provide an ExCB role for review of the ExTR for same project.

## Complaints and appeals (including appeals to IECEx)

There is a general process in DEKRA Testing and Certification GmbH for internal complaints, internal and external audits, and external complaints, documented in QMH 4.7, dated 2024-12-10, “Q-PB-0 Complaints”, dated 2024-09-02. The documented procedure addressed a possible way of complaints and appeals directly to IECEx secretariat.

There is a file for registration of details of complains/appeals and how these have been resolved. In 2024, there has been 4 complaints on certification lead-time in Ex field. At the time of the assessment one was successfully resolved to the satisfaction of the complainant, and the other three are in process. This meets the requirements of the IECEx.

## Impartiality

The policy on confidentiality is addressed in the Quality Manual Handbook, QMH 1.1 Impartiality, dated 2022-01-13.

DTCG, as a third party testing and certification body does not provide any services, which may place the organization in a position where a conflict of interest may occur, and all the relevant staff and external relevant involved in the process of testing and certification activities has signed a commitment regarding confidentiality as well as impartiality.

DTCG management has also issued the statement of impartiality and confidentiality as public document posted on their website.

There is a meeting once a year to discuss this issue, among others, involving a committee. The last meeting was held on 2024-04-30 and involved a variety of stakeholders. DEKRA has an Excel spreadsheet in the folder Q-A-0 Risk Management - 2024, that tracks all risks to impartiality.

These arrangements fulfil the requirements of ISO/IEC 17025, ISO/IEC 17065 and the IECEx.

## Active involvement in development of Decision Sheets

The document Q-PB-65-IECEx “Requirements of IECEx”, dated 2020-01-17 addresses the requirements for commenting on ExTAG draft decision sheets, and where appropriate raise their own. The evidence as shown on IECEx website confirms that they did actively involve in development of decision sheets as specified in their procedure. This meets the requirements of the IECEx,

## Special facts to be noted

In noting DEKRA Testing and Certification GmbH had a scope extension of the standard IEC 62990-1 based on their existing scope of IEC 60079-29-1 via ExAG/019/DV through ExAG earlier this year. This assessment includes a successful review and assessment of the body’s capability by verification of testing facilities, staff interview, witnessing testing and etc. The assessment team satisfied with the body’s capabilities for their implementing IEC 62990-1.

## Supporting documentation

Copies of additional supporting information for this assessment have been provided to the applicant and the IECEx Secretariat. These are included in a site assessment report (F-004) or provided separately and include:

* Details of issues raised and how these have been resolved
* Checklist for ISO/IEC 17065
* Checklist for ISO/IEC 17025
* Technical Capability Documents (TCDs) for IECEx 02 and IECEx 03-5 Schemes
* Photos of the facilities/tests witnessed are included in the above TCDs
* Information on competencies
* Information on contracting/subcontracting
* Assessors’ notes

NOTE Assessors are to amend above list as appropriate

## Recommendations

Based on the assessment performed from 11 to 13 November 2024, DEKRA Testing and Certification GmbH (DTCG) is recommended for continued acceptance in the IECEx scheme as:

* An ExCB in the IECEx Certified Equipment Scheme
* An ExTL in the IECEx Certified Equipment Scheme
* An ExCB in the IECEx Certified Service Facilities Scheme

This is according to the scope of the standards listed in this document.

|  |  |
| --- | --- |
| Jianping Xu | Kevin Wolf |
| IECEx Lead Assessor | IECEx Expert Assessor |

Date: 31 January 2025

# ExCB for IECEx Certified Equipment Scheme

## Assessment references

### General references

1. IECEx 02 IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules of Procedure
2. IECEx OD 003-2 Assessment, surveillance assessment and re-assessment of ExCBs and ExTLs operating in the IECEx 02, IECEx Certified Equipment Scheme
3. ISO/IEC 80079-34 Explosive atmospheres – Part 34: Application of quality systems for equipment manufacture
4. IECEx OD 009 Issuing of CoCs, ExTRs and QARs
5. IECEx OD 025 Guidelines on the Management of Assessment and Surveillance programs for the assessment of Manufacturer’s Quality Systems in accordance with the IECEx Scheme
6. IECEx OD 026 IECEx Certified Equipment Scheme – Guidelines for the qualification of Lead Auditor and Auditors, in accordance with the IECEx System
7. ISO/IEC 17065 General requirements for bodies operating product certification systems Conformity assessment — Requirements for bodies certifying products, processes and services
8. IECEx OD 107 Harmonised check list for certification bodies ISO/IEC 17065
9. IECEx OD 060 IECEx Guide for Business Continuity – Management of Extraordinary Circumstances or Events Affecting IECEx Certification Schemes and Activities
10. IECEx Technical Capability Document (TCD)
11. ExTAG decision sheets (DSs)

NOTE The latest editions of the above documents were applied, unless otherwise specified

### Additional references applied for this assessment

1. OD 280 IECEx Certified Equipment Scheme – Guide to Certification of Nonelectrical Equipment and Protectiive Systems
2. OD 033 IECEx Operations Manual – IECEx Unit Verification Certificates
3. OD 233 IECEx Certified Equipment Scheme - Assessment of Ex “s” Equipment
4. DTCG’s Quality Management System

## ExCB persons interviewed

|  |  |
| --- | --- |
| Name | Position |
| Dr. Michael Wittler | Head of Division  Explosion Protection Electrotechnology |
| Jörg Koch | Head of Certification Body |
| Michael Sippel | Head Explosion Protection and Plant Safety |
| Deniz Pezzutto | Protection Electrotechnology |
| Benjamin Kampe | Deputy Head of Non-Electrical, Project Engineer, Auditor |
| Mario Marpe | Specialist Gas measurement  Team leader of gas detection |

## Associated ExTL(s)

With exception of the integral ExTL in Bochum and Essen, Germany, there is an additional associated ExTL with following information:

**DEKRA Certification B.V.**

Meander 1051

6825 MJ Arnhem

NETHERLANDS

(P O Box 5185, 6802 ED Arnhem, NETHERLANDS)

Both are accepted ExTLs within IECEx 02 Certified Equipment Scheme. This re-assessment does not cover the assessment of the ExTL in Netherlands.

## Associated certification functions

DEKRA Testing and Certification GmbH has wide range of associated certification functions with exception of equipment test and certification in accordance with ATEX Directive 2014/34/EU, for example equipment tested under the IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE) as testing laboratories located in Dresden and Stuttgart.

## National marks and certificates

DEKRA Testing and Certification GmbH issued ATEX certificates are accepted by the European commission and by European state regulators.

## Standards accepted

See Annex A of this report

## National differences to IEC standards

National differences to IEC standards are those for the European Group differences. With reference to [IECEx On-line Bulletin](https://www.iecex.com/resources-and-news/iecex-on-line-bulletin/), seven standards (e.g. IEC 60079-1 and etc.) are declared as no national difference and the IEC 60079-29-4 was declared with detailed European Group differences, but there is no response for all the rest of standards at the time of site assessment. This was advised that those without response will be updated after discussion during the upcoming ExNBG meeting. IECEx secretariat will monitor the progress.

## Organisation

### Names, titles and experience of the senior executives

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Dr. Michael Wittler | Head of specialist division  Deputy Head of Laboratory  Head of Division Explosion Protection Electro Technology | >10 years |
| Dr. Franz Eickhoff | Senior Auditor Explosion Protection Electro Technology | >10 years |
| Dr. Mario Marpe | Specialist Gas measurement  Team leader of gas detection | >5 years |

### Name, title and experience of the quality management representative

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Boyana Tosheva | Head of Quality Management | >10 years |
| Jörg Koch | Head of Certification Body  Deputy head of Quality Management | >10 years |

### Name and title of signatories for certification

|  |  |  |
| --- | --- | --- |
| Name | Title | Comments |
| Jörg Koch | Head of Certification Body | >10 years |
| Dr.-Ing. Michael Wittler | Deputy Head of Laboratory  Head of Division Explosion Protection Electro Technology | >10 years |
| Dr. Franz Eickhoff | Senior Auditor of Certification Body | >10 years |
| Deniz Pezzutto | Deputy Head of Division Explosion Protection Electro Technology | >10 years |
|  |  |  |

### Other employees in ExCB activity

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience in Ex (years) |
| Dagmar Muskatewitz | Office member | >5 years |
| Madeline Gruszka | Office member | >5 years |
| Daniel Horstkötter | Office member | >5 years |
| Andrea Kurz | Office member | >5 years |
| Christiane Pohl | Office member | >5 years |

## Organizational structure

See Annex B (Overall Organizational Chart) and Annex C (Organization Chart of ExCB/ExTL).

## Indemnity insurance

DEKRA Testing and Certification GmbH holds professional indemnity insurance. These are covered in one policy from Gothaer Allgemeine Versicherungs AG in Cologne, Germany. The insurance number is 38.660.561932 and the sum insured is EUR 5,000,000.00, which indicates no limitation of territories and is valid until 1 January 2026. This fulfils the requirements for operation of IECEx.

## Resources

DEKRA Testing and Certification GmbH has appropriate resources in terms of buildings, facilities, equipment and qualified personnel to fulfil their IECEx scope for the current level of business.

At the time of this assessment, DTCG has about 180 employees in total, in which around 60 competent staff work in the field of testing and certification for equipment used in explosive atmospheres.

## Committees (such as governing or advisory boards)

The composition and terms of reference of the Advisory Board are described in the Quality Management Handbook, Chapter 1.1.2 The Mechanism for Ensuring Impartiality, Q-A-65 The Mechanism for Ensuring Impartiality”, dated 2019-10-31. The Ex Committee comprises nine representatives of market surveillance, research and education and industry representatives with no single interest predominating (see also “Q-A-65 Membership of Steering Committee”, dated 2024-04-02).

The content of the procedures reviewed and found to meet the requirements of ISO/IEC 17065 and the IECEx requirements.

The latest minutes for the yearly meeting of 2023 were reviewed, and noted the meeting held on 30 April 2024 was chaired by the Speaker and concluded with satisfaction to the safeguarding on impartiality at DEKRA Testing and Certification GmbH.

## Certification operations

### National approval/certification methods

The national certification system for Ex equipment is that of the ATEX directive 2014/34/EU. DEKRA Testing and Certification is recognised under the National accreditation systems and schemes.

### Certification policy

The Statement on certification policy is available in Quality Management Handbook (see reference "Q-A-0 Quality Policy", dated 2023-06) and further applicable documents. These are accessible to all relevant staff.

### Application for certification

The procedure for certification application is available in Quality Management Handbook (see reference Q-PB-65 Certification, Chapter 3 Application, dated 2023-09-26) and further applicable documents.

The applicant can ask for an application for certification by different way, including by e-mail, in person, by writing etc. Once this is done a technical and commercial offer is sent to the applicant. The form Q-F-65-ExE Certification project Datasheet is used for recording the whole certification processes from the application to certification decision.

### Certification decision

The procedure is documented in Quality Management Handbook (see reference Q-PB-65 Certification, Chapter 7 Certification decision, dated 2023-09-26) and the dedicated procedure Q-PB-65-IECEx “Requirements of IECEx”.

The procedures were reviewed, and found that the process is referenced to IECEx operational documents, e.g. OD 009. The confirmed staff competency matrix of DTCG shows them as the persons with the authority to carry out this role.

### Suspension and cancellation of certificates

The rule and procedure can be found in Quality Management Handbook (see reference Q-PB-65 Certification, Chapter 12 Termination, reduction, suspension or withdraw, dated 2023-09-26). The procedure Q-PB-65-IECEx mentioned above also has a reference to OD 209 and OD 250.

With reference to the procedures, a notification to applicant of certificate suspension and cancellation is required for avoiding the misuse of ATEX and IECEx certification, which meets the requirements as indicated in Annex B of OD 209. But during the assessment it was found the records for some of cancelled and suspended certificates were not available. This has been subsequently resolved to the satisfaction of the assessment team.

## Certificates issued

Number of certificates issued under for the preceding three years for each type of protection.

| Standard numbers | Type of protection or other identifying information | Number of issued certificates (for last 3 years) | | | Total |
| --- | --- | --- | --- | --- | --- |
| 2022 | 2023 | 2024\* |
| IEC 60079-0 | Explosive atmospheres - Part 0: Equipment - General requirements | 180 | 181 | 129 | 490 |
| IEC 60079-1 | Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures “d” | 59 | 64 | 52 | 175 |
| IEC 60079-2 | Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure “p” | 7 | 8 | 7 | 22 |
| IEC 60079-5 | Explosive atmospheres - Part 5: Equipment protection by powder filling “q” | 2 | 2 | 1 | 5 |
| IEC 60079-6 | Explosive atmospheres - Part 6: Equipment protection by oil immersion “o” | - | - | 1 | 1 |
| IEC 60079-7 | Explosive atmospheres - Part 7: Equipment protection by increased safety "e" | 86 | 83 | 53 | 222 |
| IEC 60079-11 | Explosive atmospheres - Part 11: Equipment protection by intrinsic safety “i” | 101 | 108 | 64 | 273 |
| IEC 60079-13 | Explosive atmospheres - Part 13: Equipment protection by pressurised room "p" and artificially ventilated room “v” | - | - | - | - |
| IEC 60079-15 | Explosive atmospheres – Part 15: Equipment protection by type of protection "n" | 16 | 7 | 12 | 35 |
| IEC TR 60079-16 | Electrical apparatus for explosive gas atmospheres. Part 16: Artificial ventilation for the protection of analyser(s) houses | - | - | - | - |
| IEC 60079-18 | Explosive atmospheres – Part 18: Equipment protection by encapsulation “m” | 12 | 20 | 6 | 38 |
| IEC 60079-25 | Explosive atmospheres - Part 25: Intrinsically safe electrical systems | - | - | - | - |
| IEC 60079-26 | Explosive atmospheres - Part 26: Equipment with Separation Elements or combined Levels of Protection | 21 | 10 | 6 | 37 |
| IEC 60079-28 | Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation | 5 | 12 | 7 | 24 |
| IEC 60079-29-1 | Explosive atmospheres – Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases | - | - | - | - |
| IEC/IEEE 60079-30-1 | Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements | - | - | - | - |
| IEC 60079-31 | Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t" | 55 | 62 | 47 | 164 |
| IEC TS 60079-32-1 | Explosive atmospheres - Part 32-1: Electrostatic Hazards – Guidance  **NOTE**: This TS may be used for testing purposes but not for issuing an IECEx Certificate of Conformity | N/A | N/A | N/A | N/A |
| IEC 60079-32-2 | Explosive atmospheres - Part 32-2: Electrostatics hazards – Tests  **NOTE**: This standard may be used for testing purposes but not for issuing an IECEx Certificate of Conformity | N/A | N/A | N/A | N/A |
| IEC 60079-33 | Explosive atmospheres – Part 33: Equipment protection by special protection “s” | - | - | 1 | 1 |
| IS0 80079-36 | Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements | 2 | 1 | 2 | 5 |
| ISO 80079-37 | Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres – Non electrical type of protection constructional safety ”c” control of ignition source ”b”, liquid immersion ”k” | 1 | 1 | 1 | 3 |
| IEC TS 60079-39 | Explosive atmospheres – Part 39: Intrinsically safe systems with electronically controlled spark duration limitation | - | - | - | - |
| IEC TS 60079-40 | Explosive atmospheres - Part 40: Requirements for process sealing between flammable process fluids and electrical systems | - | - | - | - |
| IEC TS 60079-42 | Explosive atmospheres- Electrical safety devices for the control of potential ignition sources for Ex-Equipment.  **NOTE**: This TS may be used for testing purposes but not for issuing an IECEx Certificate of Conformity | N/A | N/A | N/A | N/A |
| IEC TS 60079-46 | Explosive atmospheres – Part 46 - Equipment assemblies | - | - | 1 | 1 |
| IEC TS 60079-47 | Explosive atmospheres – Part 47: Equipment protection by 2-wire intrinsically safe Ethernet concept (2-WISE) | - | 1 | 2 | 3 |
| IEC 62990-1 | Workplace atmospheres – Part 1: Gas detectors - Performance requirements of detectors for toxic gases | - | - | - | - |

NOTE:

1. Above include certificates to IEC 60079-0 unless otherwise shown.
2. The statistic number for 2024 is as of October 2024.

## National accreditation

DTCG holds national accreditation as a certification body according to ISO/IEC 17065:2012. The accreditation certificate issued by the national accreditation body DAkkS (a full IAF member) is effective on 27th November 2020 and valid based on annual surveillance. The accreditation scope includes all the categories of Ex equipment applied for IECEx operation.

The national accreditation certification for ISO/IEC 17065 is shown in Annex D.

## Assessment of manufacturers and issue of QARs

This is documented in the procedure Q-PB-65-IECEx Requirements of IECEx, dated 2020-01-17. The requirements for auditor competence are described in "Q-PB-21 Competency of Auditors", dated 2021-02-01. Further applicable forms are "Q-F-21 Qualification of Auditor", "Q-F-21 Checklist of Evidence" and "Q-F-21 Monitoring Auditor". The procedures were reviewed and noted that the relevant IECEx requirements are properly integrated for ensuring the implement the relevant operational documents, eg. OD 009, OD 250. In addition, the general policy on remote assessment techniques for evaluation activities are described in Q-PB-65 Rev. 2, dated 9 July 2024, which includes a statement for ensuring OD 060 be used if applicable.

During the time of the assessment, the out-of-date QARs were checked by using the Backoffice of the IECEx OCS system, and noted there are several Certificates linked with out-of-date QARs with various reasons but deviation from IECEx requirements and DTCG’s procedures. This has been subsequently resolved to the satisfaction of the assessment team.

NOTE Include information about how the ExCB applies the provisions of OD 060 if applicable.

## Comments (including issues found during assessment)

A number of issues and observations were raised during this assessment, and reported to, and accepted by, the management of DTCG at the end of this assessment.

All the issues relating with ExCB have been resolved to the satisfaction of the assessors. Details of issues and how these have been resolved are clearly listed in Annex A of the IECEx site assessment report (F-004).

# ExTL for IECEx Certified Equipment Scheme

## Assessment references

### General references

1. IECEx 02 IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules of Procedure
2. IECEx OD 003-2 Assessment, surveillance assessment and re-assessment of ExCBs and ExTLs operating in the IECEx 02, IECEx Certified Equipment Scheme
3. IECEx OD 009 Issuing of CoCs, ExTRs and QARs
4. ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories
5. IECEx OD 018 Harmonised check list for testing and calibration laboratories ISO/IEC 17025
6. IECEx TCD 60079, ISO 80079 Series and ISO 16852 Technical Capability Document
7. ExTAG decision sheets (DSs)
8. IECEx OD 202 IECEx Certified Equipment Scheme – IECEx Proficiency Testing Program

NOTE The latest editions of the above documents were applied, unless otherwise specified.

### Additional references applied for this assessment

1. OD 280 IECEx Certified Equipment Scheme – Guide to Certification of Nonelectrical Equipment and Protectiive Systems
2. OD 033 IECEx Operations Manual – IECEx Unit Verification Certificates
3. OD 233 IECEx Certified Equipment Scheme - Assessment of Ex “s” Equipment
4. DTCG’s Quality Management System

NOTE To be added by assessment team. For example, ODs for non-electrical or Ex s where applicable

## ExTL persons interviewed

|  |  |
| --- | --- |
| Name | Position |
| Jan Ewald | Laboratory Manager |
| Michael Wittler | Deputy Head of Laboratory |
| Marco Altkemper | Technician |
| Malte Mittag (ESD) | Technician |
| Rüdiger Losch | Technician |
| Philipp Rethemeier | Expert |
| Stephan Ruhnau | Expert |
| M. Altkemper | Technician |
| M. Droste | Technician |
| Mario Marpe | Team leader of Gas Detection |
| Gaby Schubsda | Test Engineer |
| Dirk Wessels | Head of Personal Protective Equipment, Site Manager Essen |

## Associated ExCB(s)

With exception of the integral ExCB in Bochum Germany, there is an additional associated ExCB with following information:

**DEKRA Certification B.V.**

Meander 1051

6825 MJ Arnhem

NETHERLANDS

(P O Box 5185, 6802 ED Arnhem, NETHERLANDS)

Both are existing ExCB within the IECEx 02 Certified Equipment Scheme.

## Organisation

### Names, titles and experience of the senior executives

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Dr. Michael Wittler | Head of specialist division  Deputy Head of Laboratory  Head of Division Explosion Protection Electro Technology | >10 years |
| Dr. Michael Sippel | Head of Division Explosion Protection Plant Safety  Head of Inspection Body | >10 years |
| Jan-Paul Fritze | Specialist Explosion Protection Plant Safety and non-electrical equipment | >10 years |
| Dr. Franz Eickhoff | Senior Auditor Explosion Protection Electrotechnology | >10 years |
| Dr. Mario Marpe | Specialist Gas measurment | >5 years |

### Name, title and experience of the quality management representative

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Boyana Tosheva | Head of Quality Management | >10 years |
| Jörg Koch | Head of Certification Body  Deputy head of Quality Management | >10 years |

### Other employees in ExTL activity

|  |  |  |
| --- | --- | --- |
| Name | Title/responsibility | Experience in Ex (years) |
| Peter Althoff | Test engineer | >10 years |
| Stamena Boka Batakoa | Test engineer | >10 years |
| Klaus Bendieck | Test engineer | >9 years |
| Dustin Döring | Test engineer | >2 years |
| Silviya Fromme | Test engineer | >7 years |
| Olga Hildebrandt | Test engineer | >10 years |
| Daniel Horn | Test engineer | >7 years |
| Matthias Hurnicki | Test engineer | >7 years |
| Thomas Kircher | Test engineer | >10 years |
| Deniz Pezzutto | Test engineer | >10 years |
| Philipp Rethemeier | Test engineer | >8 years |
| Hans-Udo Rheiner | Test engineer | >10 years |
| Frank Rippert | Test engineer | >10 years |
| Stephan Ruhnau | Test engineer | >10 years |
| Jan Ewald | Test engineer | >10 years |
| Marco Altkemper | Test engineer | >10 years |
| Rüdiger Losch | Test engineer | >10 years |
| Oliver Marx | Test engineer | >10 years |
| Fabian Stolz | Test engineer | >2 years |
| Dagmar Muskatewitz | Office member | >5 years |
| Madeline Gruszka | Office member | >5 years |
| Benjamin Kampe | Testing Engineer Non-electrical | >10 years |

## Organizational structure

See Annex B (Overall Organization Chart) and Annex C (Organization Chart of ExCB/ExTL).

## Resources

DEKRA Testing and Certification GmbH has appropriate resources in terms of buildings, facilities, equipment and qualified personnel to fulfil their IECEx scope for the current level of business.

At the time of this assessment, DTCG has about 180 employees in total, in which around 60 competent staff work in the field of testing and certification for equipment used in explosive atmospheres.

## Test reports issued

Number of test reports (ExTRs) issued under for the preceding three years for each type of protection.

| Standard numbers | Type of protection or other identifying information | Number of issued reports (ExTRs) (for last 3 years) | | | Total |
| --- | --- | --- | --- | --- | --- |
| 2022 | 2023 | 2024\* |
| IEC 60079-0 | Explosive atmospheres - Part 0: Equipment - General requirements | 171 | 152 | 113 | 436 |
| IEC 60079-1 | Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures “d” | 56 | 47 | 42 | 145 |
| IEC 60079-2 | Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure “p” | 7 | 7 | 6 | 20 |
| IEC 60079-5 | Explosive atmospheres - Part 5: Equipment protection by powder filling “q” | 2 | 2 | 1 | 5 |
| IEC 60079-6 | Explosive atmospheres - Part 6: Equipment protection by oil immersion “o” | - | - | - | - |
| IEC 60079-7 | Explosive atmospheres - Part 7: Equipment protection by increased safety "e" | 84 | 61 | 49 | 194 |
| IEC 60079-11 | Explosive atmospheres - Part 11: Equipment protection by intrinsic safety “i” | 98 | 97 | 58 | 253 |
| IEC 60079-13 | Explosive atmospheres - Part 13: Equipment protection by pressurised room "p" | - | - | - | - |
| IEC 60079-15 | Explosive atmospheres – Part 15: Equipment protection by type of protection "n" and artificially ventilated room “v” | 16 | 9 | 10 | 35 |
| IEC TR 60079-16 | Electrical apparatus for explosive gas atmospheres. Part 16: Artificial ventilation for the protection of analyser(s) houses | - | - | - | - |
| IEC 60079-18 | Explosive atmospheres – Part 18: Equipment protection by encapsulation “m” | 12 | 19 | 6 | 37 |
| IEC 60079-25 | Explosive atmospheres - Part 25: Intrinsically safe electrical systems | - | - | - | - |
| IEC 60079-26 | Explosive atmospheres - Part 26: Equipment with Separation Elements or combined Levels of Protection | 19 | 10 | 4 | 33 |
| IEC 60079-28 | Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation | 5 | 10 | 7 | 22 |
| IEC 60079-29-1 | Explosive atmospheres – Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases | - | - | - | - |
| IEC/IEEE 60079-30-1 | Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements | 1 | - | - | 1 |
| IEC 60079-31 | Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t" | 54 | 45 | 40 | 139 |
| IEC TS 60079-32-1 | Explosive atmospheres - Part 32-1: Electrostatic Hazards – Guidance  **NOTE**: This TS may be used for testing purposes but not for issuing an IECEx Certificate of Conformity | - | - | - | - |
| IEC 60079-32-2 | Explosive atmospheres - Part 32-2: Electrostatics hazards – Tests  **NOTE**: This standard may be used for testing purposes but not for issuing an IECEx Certificate of Conformity | - | - | - | - |
| IEC 60079-33 | Explosive atmospheres – Part 33: Equipment protection by special protection “s” | - | - | 1 | 1 |
| IS0 80079-36 | Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements | 2 | 1 | 2 | 5 |
| ISO 80079-37 | Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres – Non electrical type of protection constructional safety ”c” control of ignition source ”b”, liquid immersion ”k” | 1 | 1 | 1 | 3 |
| IEC TS 60079-39 | Explosive atmospheres – Part 39: Intrinsically safe systems with electronically controlled spark duration limitation | - | - | - | - |
| IEC TS 60079-40 | Explosive atmospheres - Part 40: Requirements for process sealing between flammable process fluids and electrical systems | - | - | - | - |
| IEC TS 60079-42 | Explosive atmospheres- Electrical safety devices for the control of potential ignition sources for Ex-Equipment.  **NOTE**: This TS may be used for testing purposes but not for issuing an IECEx Certificate of Conformity | - | - | - | - |
| IEC TS 60079-46 | Explosive atmospheres – Part 46 - Equipment assemblies | - | - | 1 | 1 |
| IEC TS 60079-47 | Explosive atmospheres – Part 47: Equipment protection by 2-wire intrinsically safe Ethernet concept (2-WISE) | - | 1 | 2 | 3 |
| IEC 62990-1  (EN 62990-1) | Workplace atmospheres – Part 1: Gas detectors - Performance requirements of detectors for toxic gases | - | (3) | (1) | (4) |

NOTE:

1. Above include certificates to IEC 60079-0 unless otherwise shown.
2. The statistic number for 2024 is as of October 2024.

## National accreditation

DTCG holds national accreditation as a testing laboratory according to ISO/IEC 17025:2017. The accreditation certificate issued by the national accreditation body DAkkS (a full ILAC member), is effective on 11 January 2023, and valid based on regular surveillance after review of the current certificate annex. The accreditation scope of standards includes the technical concepts applied for their scope of IECEx operation based on the policy of national accreditation body.

The national accreditation certification for ISO/IEC 17025 is shown in Annex E.

## Calibration

The procedure on calibration of measuring equipment is described in Q-PB-25 Rev.2 Test Equipment, dated 2022-06-29.

The calibration of measuring equipment used for Ex testing laboratory is mainly externally done by accredited calibration providers by DAkkS or similar according to ISO/IEC 17025. All the measuring equipment are required to be calibrated at a certain interval, normally one year depending the categories of the equipment and function. There is a spreadsheet that is used to schedule and keep track of calibrations.

Example of records on calibration and verification were reviewed and found to be satisfactory during the assessment. The system was found to meet the requirements of IECEx.

## Tests witnessed during the assessment visit

The following tests were witnessed during the assessment visit:

| Standard and edition | Clause number | Test | Comments |
| --- | --- | --- | --- |
| IEC 60079-0:2017 Ed.7.0 | Clause 26.5.1 | Temperature measurement for EPL Da equipment | Satisfactory |
| IEC 60079-0:2017 Ed.7.0 | Clause 26.14 | Measurement of Capacitance | Satisfactory |
| IEC 60079-1:2017 Ed.7.0 | Clause 15.2.2 | Determination of explosion pressure for IIB Group | Satisfactory |
| IEC 60079-7:2017 Ed.5.1 | Clause 4.4.1 | CTI determination for Group II material | Satisfactory |
| IEC 60079-11:2023 Ed.7.0 | Clause 9.1 | Spark ignition test for IIC equipment | Satisfactory |
| IEC 60079-11:2023 Ed.7.0 | Clause 9.14.2 | Electrolyte leakage test for cells and batteries | Satisfactory |
| IEC 60079-15:2017 Ed.5.0 | Clause 11.3.2 | Restricted-breathing testing | Satisfactory |
| IEC 60079-18:2017 Ed.4.1 | Clause 8.1.1 | Water absorption test on the compound | Satisfactory |
| IEC 60079-28:2015 Ed.2.0 | Clause 5.2.2.2 and 5.2.2.3 | Measurement of optical power and irradiance | Satisfactory |
| IEC 60079-31:2022 Ed 3.0 | Clause 6.1.1.4 | IP6X test for "ta" equipment | Satisfactory |
| ISO 80079-36:2016 Ed.1.0 | Clause 8.2 | Determination of the maximum surface temperature for Group II equipment | Satisfactory |
| IEC 62990-1:2019 Ed.1.0 | 5.4.5.2 | Environmental tests  (Pressure) | Satisfactory |

## Participation in IECEx Proficiency Testing Programs

Program: PTB Ex PT Scheme <note if involved in any other program>

|  |  |  |
| --- | --- | --- |
| Year(s) of participation | IECEx Proficiency Testing program | General information about results |
| 2010-2012 | Program 1 "Spark ignition” | Verified during previous assessment |
| Program 2 "Explosion pressure" | Verified during previous assessment |
| 2013-2014 | Program 3 "Temperature Classification" | Verified during previous assessment |
| Program 4 "Flame Transmission" | Verified during previous assessment |
| 2015-2016 | Program 5 "Intrinsic Safety" | Verified during previous assessment |
| Program 6 "Electrostatic Charge" | Verified during previous assessment |
| 2017-2018 | Program 7 "Explosion Pressure" | Verified during previous assessment |
| Program 8 "Pressured Enclosure" | Verified during previous assessment |
| 2019-2020 | Program 9 "Tests of Enclosures (IP)" | Satisfactory with no issue |
| Program 10 "Battery Testing" | Satisfactory with no issue |
| 2021-2022 | Program 11 “Flameproof Joints” | Satisfactory with no issue |
| Program 12 “Small Component Temperature” | Satisfactory with no issue |
| 2023-2024 | Program 13 “Explosion Pressure” | Satisfactory after one warning signal in Phase 1 |
| Program 14 “Connection and Junction Boxes” | Satisfactory with no issue |

## Comments (including issues found during assessment)

A number of issues and observations were raised during this assessment, and reported to and accepted by the management of DTCG at the end of this assessment.

All the issues relating with ExTL have been resolved to the satisfaction of the assessors. Details of issues and how these have been resolved are clearly listed in Annex B of the IECEx site assessment report (F-004).

# ATF for IECEx Certified Equipment Scheme

Not applicable.

# ExCB for Certified Service Facilities Scheme

## Assessment references

### General references

1. IECEx 03-\* IECEx Certified Service Facilities Scheme covering repair and overhaul of Ex equipment – Rules of Procedure for the Scheme (IECEx 03-0) and for “sub-Schemes” on particular service activities (IECEx 03-2, 03-3, 03-4 and 03-5)
2. IECEx OD 316-2 IECEx Certified Service Facilities Scheme – Part 2: Selection of Ex equipment and design of Ex installations Assessment procedures for IECEx acceptance of Candidate Certification Bodies (ExCBs) for the purpose of issuing IECEx Certificates to Ex Service Facilities providing selection of Ex equipment and design of Ex installations related services
3. IECEx OD 316-3 IECEx Certified Service Facilities Scheme – Part 3: Ex installation and initial inspection Assessment procedures for IECEx acceptance of Candidate Certification Bodies (ExCBs) for the purpose of issuing IECEx Certificates to Ex Service Facilities providing Ex installation and initial inspection service IECEx
4. IECEx OD 316-4 IECEx Certified Service Facilities Scheme – Part 4: Ex inspection and maintenance Assessment procedures for IECEx acceptance of Candidate Certification Bodies (ExCBs) for the purpose of issuing IECEx Certificates to Ex Service Facilities providing Ex installations related services
5. IECEx OD 316-5 IECEx Certified Service Facilities Scheme – Part 5: Repair, overhaul and reclamation of Ex equipment. Assessment procedures for IECEx acceptance of Candidate Certification Bodies (ExCBs) for the purpose of issuing IECEx Certificates to Ex Service Facilities involved in the repair, overhaul and reclamation of Ex equipment
6. ISO/IEC 17065 General requirements for bodies operating product certification systems Conformity assessment — Requirements for bodies certifying products, processes and services
7. IECEx TCD 60079-19, Technical Capability Document IEC 60079 -19: 2010, Explosive atmospheres - Parts 19: Equipment repair, overhaul and reclamation
8. IECEx OD 060 IECEx Guide for Business Continuity – Management of Extraordinary Circumstances or Events Affecting IECEx Certification Schemes and Activities
9. IEC 60079-17 Explosive atmospheres - Part 17: Electrical installations inspection and maintenance
10. IEC 60079-19 Explosive atmospheres – Part 19: Equipment repair, overhaul and reclamation
11. ExSFC Decision Sheets

NOTE The latest editions of the above documents were applied

### Additional references applied for this assessment

1. IECEx OD 060 IECEx Guide for Business Continuity – Management of Extraordinary Circumstances or Events Affecting IECEx Certification Schemes and Activities
2. DTCG’s Quality Management System

NOTE To be added by assessment team if applicable. For example, OD 060 if done as a remote assessment.

## ExCB persons interviewed

|  |  |
| --- | --- |
| Name | Position |
| Dr. Michael Wittler | Head of specialist division  Deputy Head of Laboratory  Head of Division Explosion Protection Electro Technology |
| Dr. Michael Sippel | Head of Division Explosion Protection Plant Safety  Head of Inspection Body |
| Jörg Koch | Head of Certification Body  Deputy head of Quality Management |
| Benjamin Kampe | Deputy head of Non-electrical equipment  Project Engineer, Qualified Auditor |

## National marks and certificates

DEKRA Testing and Certification GmbH provides ATEX certificates in accordance with ATEX Directive 2014/34/EU and operates as an inspection body for explosion protection according to national industrial safety regulation based on ISO/IEC 17020 with accreditation from German Central Office of the Federal States for Safety (ZLS). There are no national certificates issued for Ex service facilities.

## Standards accepted

See clause 1.6 of this report

## National differences to IEC standards

National differences to IEC standards are those for the European group differences listed in the latest version of the IECEx System Bulletin.

## Organisation

### Names, titles and experience of the senior executives

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Dr. Michael Wittler | Head of specialist division  Deputy Head of Laboratory  Head of Division Explosion Protection Electro Technology | >10 years |
| Dr. Franz Eickhoff | Senior Auditor Explosion Protection Electrotechnology | >10 years |
| Dr. Mario Marpe | Specialist Gas measurement | >5 years |

### Name, title and experience of the quality management representative

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Boyana Tosheva | Head of Quality Management | >10 years |
| Jörg Koch | Head of Certification Body  Deputy head of Quality Management | >10 years |

### Name and title of signatories for certification

|  |  |  |
| --- | --- | --- |
| Name | Title | Comments (years) |
| Dr. Michael Wittler | Head of specialist division  Deputy Head of Laboratory  Head of Division Explosion Protection Electrotechnology | >10 years |
| Dr. Michael Sippel | Head of Division Explosion Protection Plant Safety  Head of Inspection Body | >10 years |
| Dr. Franz Eickhoff | Senior Auditor Explosion Protection Electrotechnology | >10 years |
| Dr. Mario Marpe | Specialist Gas measurement | >5 years |

### Other employees in ExCB activity

|  |  |  |
| --- | --- | --- |
| Name | Title/responsibility | Experience in Ex (years) |
| Thomas Kircher | Auditor for FAR | >10 years |
| Silke Knitter | Auditor for FAR | >10 years |
| Deniz Pezzutto | Auditor for FAR | >10 years |

## Organizational Structure

See Annex B (Overall Organization Chart) and Annex C (Organization Chart of ExCB/ExTL).

## Indemnity insurance

DEKRA Testing and Certification GmbH holds professional indemnity insurance with worldwide. For the details, refer to Clause 3.10 of this report.

## Resources

DEKRA has sufficient resources for operation of IECEx 03-5 Certified Service Facility Scheme, with six qualified auditors, for auditing the service facilities according to IECEx 03-5 Certified Facility Scheme.

## Committees (such as governing or advisory boards)

The scope of the Advisory Board of DEKRA Testing and Certification GmbH covers both equipment and service facilities schemes. For the details, refer to Clause 3.12 of this report.

## Certification operations

### National approval/certification Methods

DEKRA Testing and Certification GmbH provides ATEX certificates in accordance with ATEX Directive 2014/34/EU and operates as an inspection body for explosion protection according to national industrial safety regulation based on ISO/IEC 17020 with accreditation from German Central Office of the Federal States for Safety (ZLS). There are no national certificates issued for Ex service facilities, but DTCG has documented quality system and procedures for compliance with the requirements of the IECEx 03-5 certified facility scheme.

### Certification policy

The Statement on certification policy is available in Quality Management Handbook (see reference "Q-A-0 Quality Policy", dated 2023-06) and further applicable documents. These are accessible to the relevant staff.

### Application for certification

The procedure for certification application is available in Quality Management Handbook (see reference Q-PB-65 Certification, Chapter 3 Application, dated 2023-09-26 and further applicable documents (eg. Q-PB-65-IECEx “Requirement of IECEx”).

### Certification decision

The procedure is documented in Quality Management Handbook (see reference Q-PB-65 Certification, Chapter 7 Certification decision, dated 2023-09-26) and the dedicated procedure Q-PB-65-IECEx “Requirements of IECEx”.

The procedures were reviewed, and found that the process is referenced to IECEx operational documents of IECEx 03-5.

### Suspension and cancellation of certificates

The rule and procedure can be found in Quality Management Handbook (see reference Q-PB-65 Certification, Chapter 12 Termination, reduction, suspension or withdraw, dated 2023-09-26). In the procedure Q-PB-65-IECEx, there is also a reference to the operational documents of IECEx 03-5. This meets the requirements of the IECEx.

At the time of the assessment, DTCG has issued 7 IECEx certificates for Ex service facilities, with no suspended or cancelled certificates.

## Statistics

Detail experience in assessment and certification of Ex related Service Facilities for the Ex Protection under this application during the past 2 years:

|  |  |  |
| --- | --- | --- |
| Types of protection | ID | Comments |
| Flameproof Enclosure "d" | d | 1 |
| Increased Safety "e" | e | 1 |
| Type of Protection "n" | n | 1 |
| Intrinsic Safety "i" | i | 7 |
| Oil Filled "o" | o | 0 |
| Pressurisation "p" | p | 1 |
| Pressurisation "q" | q | 0 |
| Dusts to IEC 60079-31 "t", (formerly “tD” or DIP) | t | 1 |
| Other (eg non-electrical) | Ot | 1 |

## National accreditation

There are no national certificates issued for Ex service facilities, and therefore DTCG has not the national accreditation. But DTCG holds national accreditation as a product certification body under ATEX Directive and has been accepted as an ExCB under IECEx 02 certified equipment scheme according to ISO/IEC 17065. DTCG has established procedures addressed in Q-PB-65-IECEx, for compliance with the requirements of IECEx 03-5 certified service facility scheme.

## Assessment of service facilities and issue of FARs

This is documented in the Clause 2 of the procedure Q-PB-65-IECEx “Requirements of IECEx". It covers the assessment of service facilities and certification process according to IECEx 03-5 Program. Q-PB-65 Rev. 2 Remote assessment techniques for evaluation activities dated 9 July 2024

An example of the FAR was reviewed during the site assessment, and found to meet the requirements of the IECEx.

## Comments (including issues found during assessment)

One issue regarding operation of IECEx 03-5 scheme was raised during this assessment, and reported to and accepted by the management of DTCG at the end of this assessment.

The issue is related to the scopes given in an issued IECEx certificate with the type of encapsulation (Ex m) and has been successfully resolved to the satisfaction of the assessors. Details of the issue and how this has been resolved is clearly listed in Annex D of the IECEx site assessment report (F-004).

# IECEx Conformity Mark Licensing Scheme

Not applicable.

# ExCB for IECEx Personnel Competence Scheme

Not applicable.

# Annexes

See Contents. (add, modify or delete annexes as necessary). Please note the following instructions for the IEC template:

NOTE When creating a new annex **DO NOT** type the word Annex, just create a new empty page and then apply the styles ANNEXtitle to the first (empty) line. The word "Annex" followed by the letter "A" or "B", etc will automatically appear.

1. Scope for IECEx Certified Equipment Scheme
   1. Current standards

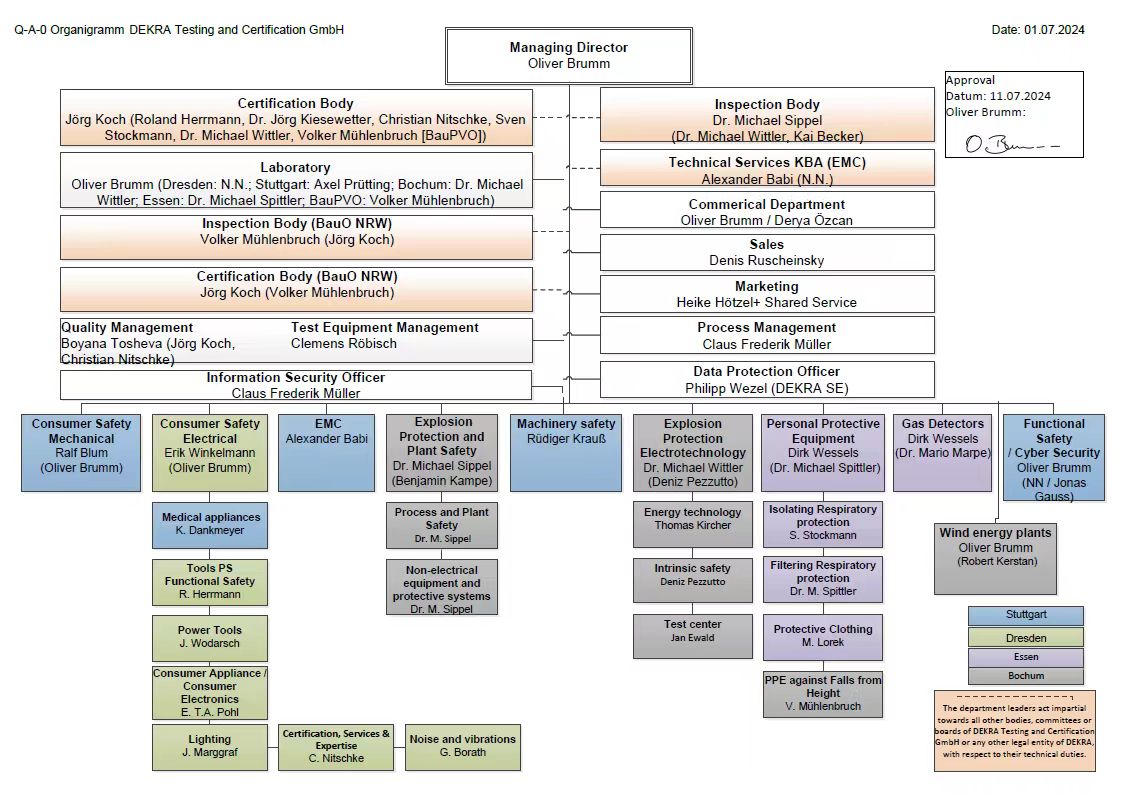
| Number | Title | Comments |
| --- | --- | --- |
| IEC 60079-0  Edition 7.0 | Explosive atmospheres - Part 0: Equipment - General requirements | Current |
| IEC 60079-1  Edition 7.0 | Explosive atmospheres - Part 1: Equipment protection by flameproof  enclosures “d” | Current |
| IEC 60079-2  Edition 6.0 | Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure “p” | Current |
| IEC 60079-5  Edition 4.1 | Explosive atmospheres - Part 5: Equipment protection by powder filling “q” | Existing scope and updated from Ed.4.0 to Ed.4.1 |
| IEC 60079-6  Edition 4.1 | Explosive atmospheres - Part 6: Equipment protection by oil immersion “o” | Current |
| IEC 60079-7  Edition 5.1 | Explosive atmospheres - Part 7: Equipment protection by increased  safety "e" | Current |
| IEC 60079-11  Edition 7.0 | Explosive atmospheres - Part 11: Equipment protection by intrinsic safety “i” | Current |
| IEC 60079-13  Edition 1.0 | Explosive atmospheres - Part 13: Equipment protection by pressurised room "p" and artificially ventilated room “v” | Current |
| IEC 60079-15  Edition 5.0 | Explosive atmospheres – Part 15: Equipment protection by type of protection "n" | Current |
| IEC TR 60079-16  Edition 1.0 | Electrical apparatus for explosive gas atmospheres. Part 16: Artificial ventilation for the protection of analyser(s) houses | Current |
| IEC 60079-18  Edition 4.1 | Explosive atmospheres – Part 18: Equipment protection by encapsulation “m” | Current |
| IEC 60079-25  Edition 3.0 | Explosive atmospheres - Part 25: Intrinsically safe electrical systems | Current |
| IEC 60079-26  Edition 4.0 | Explosive atmospheres - Part 26: Equipment with Separation Elements or combined Levels of Protection | Current |
| IEC 60079-28  Edition 2.0 | Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation | Current |
| IEC 60079-29-1  Edition 2.1 | Explosive atmospheres – Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases | Current |
| IEC/IEEE 60079-30-1  Edition 1.0 | Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements | Current |
| IEC 60079-31  Edition 3.0 | Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t" | Current |
| IEC TS 60079-32-1  Edition 1.0 | Explosive atmospheres - Part 32-1: Electrostatic Hazards – Guidance  **NOTE**: This TS may be used for testing purposes but not for issuing an IECEx Certificate of Conformity | Current |
| IEC 60079-32-2  Edition 2.0 | Explosive atmospheres - Part 32-2: Electrostatics hazards – Tests  **NOTE**: This standard may be used for testing purposes but not for issuing an IECEx Certificate of Conformity | Current |
| IEC 60079-33  Edition 1.0 | Explosive atmospheres – Part 33: Equipment protection by special protection “s” | Current |
| IS0 80079-36  Edition 1.0 | Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements | Current |
| ISO 80079-37  Edition 1.0 | Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres – Non electrical type of protection constructional safety ”c” control of ignition source ”b”, liquid immersion ”k” | Current |
| IEC TS 60079-39  Edition 1.0 | Explosive atmospheres – Part 39: Intrinsically safe systems with electronically controlled spark duration limitation | Current |
| IEC TS 60079-40  Edition 1.0 | Explosive atmospheres - Part 40: Requirements for process sealing between flammable process fluids and electrical systems | Current |
| IEC TS 60079-42  Edition 1.0 | Explosive atmospheres- Electrical safety devices for the control of potential ignition sources for Ex-Equipment.  NOTE: This TS may be used for testing purposes but not for issuing an IECEx Certificate of Conformity | Current |
| IEC TS 60079-46  Edition 1.0 | Explosive atmospheres – Part 46 - Equipment assemblies | Current |
| IEC TS 60079-47  Edition 1.0 | Explosive atmospheres – Part 47: Equipment protection by 2-wire intrinsically safe Ethernet concept (2-WISE) | Current |
| IEC 62990-1  Edition 1.0 | Workplace atmospheres – Part 1: Gas detectors - Performance requirements of detectors for toxic gases | Current |

* 1. Superseded standards

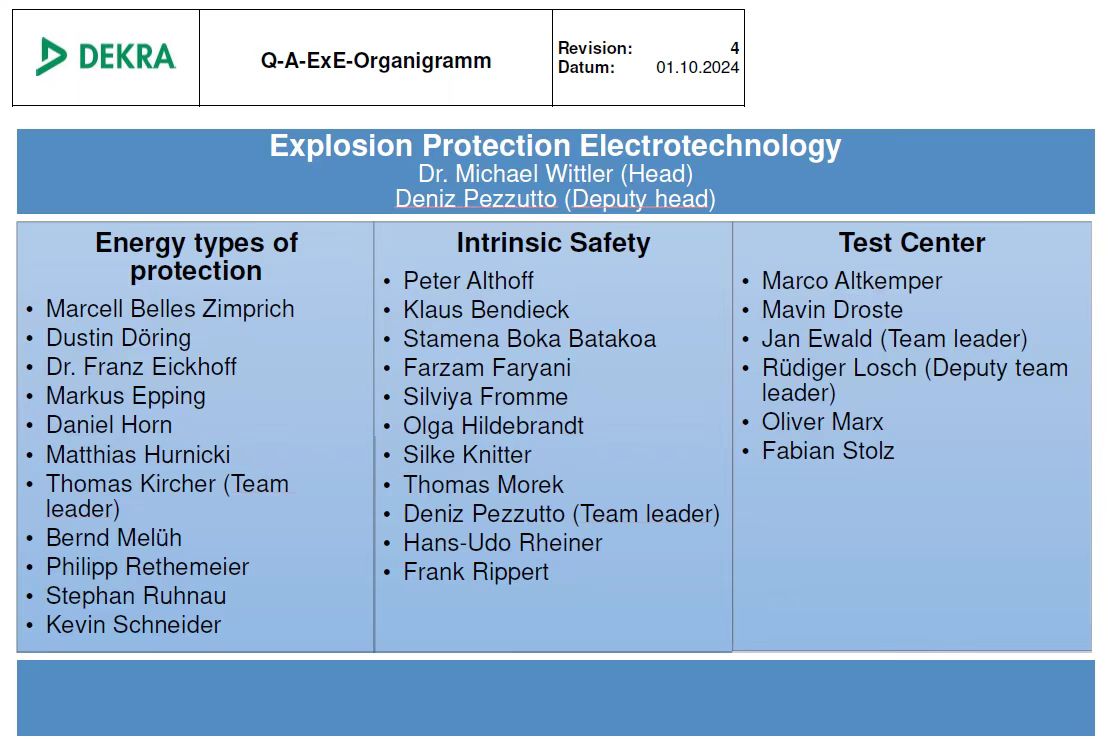
The following superseded standards may form part of a body’s scope, generally for historical reasons.

| Number | Title | Comments |
| --- | --- | --- |
| IEC TR 60079-13  Edition 1.0 | Electrical apparatus for explosive gas atmosphere - Part 13: Construction and use of rooms or buildings protected by pressurization | Existing scope |
| IEC 60079-27  Edition 2.0 | Explosive atmospheres - Part 27: Fieldbus intrinsically safe concept (FISCO) | Existing scope |
| IEC 60079-30-1  Edition 1.0 | Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements | Existing scope |
| IEC 61241-0  Edition 1.0 | Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements | Existing scope |
| IEC 61241-1-1  Edition 2.0 | Electrical apparatus for use in the presence of combustible dust - Part 1-1: Electrical apparatus protected by enclosures and surface temperature limitation - Specification for apparatus | Existing scope |
| IEC 61241-1  Edition 1.0 | Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosure “tD” | Existing scope |
| IEC 61241-4  Edition 1.0 | Electrical apparatus for use in the presence of combustible dust - Part 4: Protection by pressurization "pD" | Existing scope |
| IEC 61241-11  Edition 1.0 | Electrical apparatus for use in the presence of combustible dust – Part 11: Protection by intrinsic safety “iD” | Existing scope |
| IEC 61241-18  Edition 1.0 | Electrical apparatus for use in the presence of combustible dust - Part 18: Protection by encapsulation "mD" | Existing scope |
| IEC 61779-1  Edition 1.0 | Electrical apparatus for the detection and measurement of flammable gases - Part 1: General requirements and test methods | Existing scope |
| IEC 61779-2  Edition 1.0 | Electrical apparatus for the detection and measurement of flammable gases - Part 2: Performance requirements for group I apparatus indicating a volume fraction up to 5 % methane in air | Existing scope |
| IEC 61779-3  Edition 1.0 | Electrical apparatus for the detection and measurement of flammable gases - Part 3: Performance requirements for group I apparatus indicating a volume fraction up to 100 % methane in air | Existing scope |
| IEC 61779-4  Edition 1.0 | Electrical apparatus for the detection and measurement of flammable gases - Part 4: Performance requirements for group II apparatus indicating up to 100% lower explosive limit | Existing scope |
| IEC 61779-5  Edition 1.0 | Electrical apparatus for the detection and measurement of flammable gases - Part 5: Performance requirements for group II apparatus indicating a volume fraction up to 100 % gas | Existing scope |
| IEC 62013-1  Edition 2.0 | Caplights for use in mines susceptible to firedamp - Part 1: General requirements - Construction and testing in relation to the risk of explosion | Existing scope |

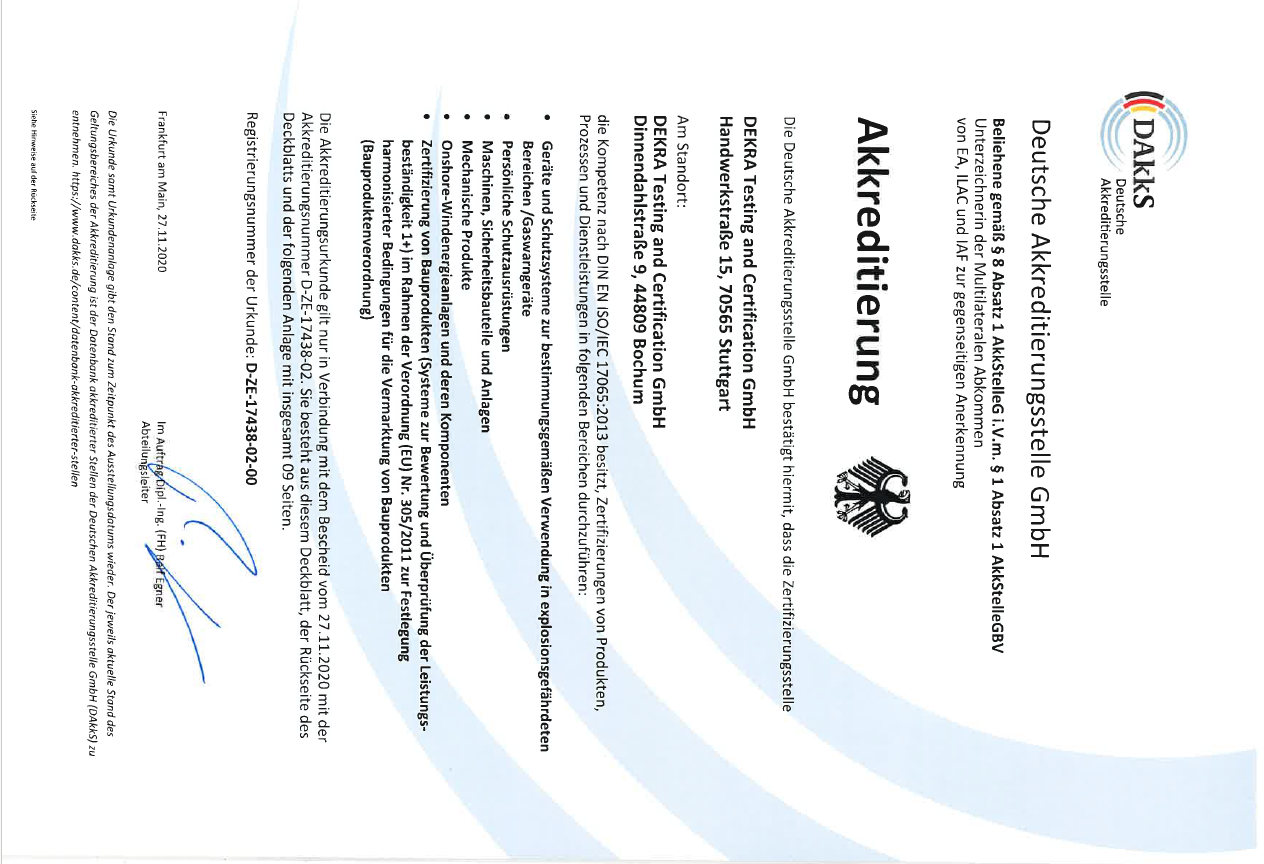
1. Overall Organisation Chart



1. Organisation Chart of ExCB/ExTL



1. Accreditation Certificate for ISO/IEC 17065



1. Accreditation Certificate for ISO/IEC 17025

