**INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC SYSTEM FOR**

**CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR USE IN**

**EXPLOSIVE ATMOSPHERES (IECEx SYSTEM)**

**TITLE: IECEx Assessment Report for the acceptance of Fiditas Ltd, Croatia as an IECEx Testing Laboratory (ExTL), in the IECEx System, Equipment Scheme, IECEx 02.**

**INTRODUCTION**

This document contains the IECEx Assessment Report for the acceptance of Fiditas Ltd, Croatia, as an Accepted ExTL in the IECEx System, Equipment Scheme, IECEx 02.

***This document is hereby submitted for ExMC approval via correspondence using the IECEx on-line voting system.  ExMC Members are requested to submit their vote via the IECEx On-line*** [***Ballot System***](https://www.iecex.com/ballot) ***by the closing date 2023 12 23***

*Please refer to OD 050 for guidance on the “IECEx On-line voting system.”*

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**Chris Agius**

IECEx Secretary

|  |  |
| --- | --- |
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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 OD003-2 for the Certified Equipment Scheme

Operational Document IECEx OD316-\* for the Certified Service Facility Scheme

Operational Document IECEx OD422 for the IECEx Conformity Mark Licensing Scheme

Operational Document IECEx OD 501 for the Personnel Competence Scheme

IECEx ExTLassessment report for

Fiditas Ltd. (FIDI), Zagreb - Croatia

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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# 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 |  |

## Type of assessment:

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

## Details of body

### Country

Croatia

### Name of body

Fiditas d.o.o. as ExTL, Fiditas is already an accepted ExCB

NOTE –ExTL is integral with already accepted IECEx ExCB

### Name and title of nominated principal contact

|  |  |  |
| --- | --- | --- |
| Name | Title | E-mail address |
| Mario Mačković | Head of Laboratory, Member of the Board | mario.mackovic@fiditas.com |
| Marino Kelava | Member of the Board | Marino.kelava@fiditas.com |

## Assessment information

### Members of the assessment team

|  |  |
| --- | --- |
| Name | Role |
| Thierry Houeix | IECEx Lead Assessor |
| Herbert Peters | IECEx Assessor |

### Place(s) of assessment

|  |
| --- |
| Fiditas d.o.o.  Slavka Tomerlina 44,  HR-10361 Zagreb-Sesvete |

### Assessment date(s)

On-site assessment done on 12thand13th September 2023

## Application information and background information on the assessment

Fiditas Ltd. established their Ex certification and testing activities after closing of former Ex-Agencija (2002-2019) which operated as ATEX Notified Body and IECEx ExCB and ExTL. Fiditas Ltd. is managed and operated by the same personnel who were managing and running the Ex business at former Ex-Agencija. Fiditas is successor to Ex-Agencija’s ATEX and IECEx related activities (Fiditas is legally responsible for maintenance of EXA certificates listed in IECEx OCS).

## Scopes

### ExTL scope

The scope for the ExTL is shown in Annex A.

# Common information

## Legal entity of body

Fiditas Ltd. is a registered company under number MBS 081018714 since March 8, 2016. It was updated in December 14, 2017 in order to include the four Managing Partners: Josip Deskin, Berislav Prpic, Mario Mackovic and Marino Kelava.

The last update was March30, 2022, for the change of address and headquarters.

The document was checked during the assessment and found to meet the requirements of the IECEx.

## Financial support

The commercial activities related to Ex testing are self-financed through customer fees.

## History

Fiditas Ltd. established their Ex certification and testing activities after closing of former Ex-Agencija (2002-2019) which operated as ATEX Notified Body and IECEx ExCB and ExTL. Fiditas Ltd. is managed and operated by the same personnel who were managing and running the Ex business at former Ex-Agencija. Fiditas is successor to Ex-Agencija’s ATEX and IECEx related activities (Fiditas is legally responsible for maintenance of EXA certificates listed in IECEx OCS).

Ex-Agencija was ExCB and ExTL from 2011 to 2019. Ex-Agencija was closed by the act of their owner (Croatian Government). Following this event, Ex experienced staff continued their business under new privately owned entity Fiditas Ltd. There is continuous activity in the Ex certification and testing in Croatia since 1949 (the year when predecessor of Ex-Agencija which was operating under the name S-Komisija was established). Today Fiditas Ltd. continues on this historical heritage of 74 years of continuous operations in the field of Ex testing and certification. Number of test reports completed by Fiditas personnel at former S-Komisija/Ex-Agencija exceeds two hundreds.

Fiditas Ltd. is ISO/IEC 17025 and ISO/IEC 17065 accredited.

Today there is 21 people working at Fiditas.

In April 2019 Fiditas was assessed by the Croatian Accreditation Agency and received the Accreditation certificate according to ISO/IEC 17065:2012 on 2019-07-23 for the certification of:

* Ex equipment and protective system
* Explosives for civil use
* Pyrotechnic articles

On September 20, 2019Fiditas was notified to European Commission by the Croatian Authority and register under the number: 2829.

In February 2019 Fiditas was assessed by the Croatian Accreditation Agency and received the Accreditation certificate according to ISO/IEC 17025:2017 on 2019-04-12 for the testing of:

* Ex equipment
* Explosive parameters of a flammable media

Accreditation Certificate No. 1627. The expiry date is 2024-04-11. The next assessment will be performed two months before this date.

Fiditas is official IECEx Member Body for Croatia and is managing the work of international standardization Secretariat of IEC SC 31J.

## Documentation

### Quality manual

The Quality Manual consists of Business principles, Sales, Human resources, HSE, Finance, Generic, Marketing and Subcontracting, Laboratory Management, Quality improvement, Impartiality and Legal.

There is also a specific Quality Manual for the testing activities – QML a bissue 08.

The whole QM is complete and accessible by all employees on the intranet. The Quality manual as well related documents from different levels were reviewed during the assessment and found to meet the requirements of the IECEx.

### Procedures

Fiditas Ltd. has a comprehensive range of procedures covering all aspects offsetting operations. Where applicable, each procedure related to ExTL has with it an associated work instruction and test sheet for completion by the staff.

Procedures relevant for the operation under IECEx were reviewed during the assessment and found to meet the requirements of the IECEx.

### Work instructions

Fiditas has a comprehensive range of work instructions to define the test methods that are used for testing Ex products. Instructions were reviewed during the assessment and found to meet the requirements of applicable Ex standards and the IECEx.

### Records (including test records where relevant)

A procedure for control of records is in place (POS-O-01) to comply with relevant accreditation schemes and government requirements. All records are uniquely identified, secured and stored in a way to ensure the reliability of the testing process and to maintain the confidentiality of information. A record retention period has been established, 10 years as a minimum. After it expires, the records are archived. The procedure addresses the retention period for IECEx as well, which was found to be in compliance with IECEx OD-207.

In practice it was advised critical records are stored indefinitely so no destruction process for these records is in place.

The system was found to meet the requirements of the IECEx.

### Document change control

Document change control is covered in a dedicated procedure POS-O-01.

The Assessment Team confirmed that this also addressed the issue of externally generated documents, e.g. standards, IECEx ODs and also ExTAG Decision sheets.

The system meets the requirements of IECEx.

## Confidentiality

(For staff, contractors and members of advisory bodies)

All employees sign confidentiality agreements when they start to work in the testing laboratory. Examples of these were sighted by the team and found to meet the requirements of the IECEx.

Confidentiality is appropriately addressed in contractual agreements with external service providers as well.

In addition, all members of the impartiality committee signed a confidentiality agreement before to start their participation in this committee.

There is a system of security control at the entrance to the buildings which is also controlled by door key. In addition, records stored electronically are protected by access password.

The system meets the requirements of ISO/IEC 17025 and IECEx.

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

Fiditas provides information to their customers via the internet at <https://www.fiditas.com>.

Fiditas maintains and publishes information on (among others):

* Terms and Conditions for the use of their services
* Testing, verification, certification, inspection and auditing processes,
* types of management systems and certification programs in which it operates,
* application forms.

Other information is available on request.

## Recognitions and agreements

Fiditas has recognition by Croatian Accreditation Agency for Conformity Assessment and Testing and is accredited against ISO/IEC 17065and ISO/IEC 17025 for certification and testing services.

Fiditas is EU Notified Body for three directives:

* 2014/34/EU Directive (ATEX)
* 2014/28/EU (explosives for civil use)
* 2013/29/EU (pyrotechnic articles)

United States Coast Guard accepted Fiditas as an independent laboratory for electrical equipment for hazardous locations. Fiditas is recognized to certify electrical equipment for hazardous locations as set forth in Title 46 CFR Subparts 111.105, 111.106 and 111.108. USCG recognizes Fiditas certifications to the following standards: IEC 60079-0, IEC 60079-1, IEC 60079-2, IEC 60079-5, IEC 60079-6, IEC 60079-7, IEC 60079-11, IEC 60079-15, IEC 60079-18 and IEC 60079-25.

Fiditas is official IECEx Member Body for Croatia and is managing the work of international standardization Secretariat of IEC SC 31J.

The testing laboratory holds several valid OD-024 test agreements with other IECEx ExTLs for partial or full testing. Several projects have been completed and official IECEx ExTRs have been issued following OD-024 agreements.

## Internal audit

The detailed internal audit procedure is defined in POS-O-19 Implementation of internal audit.

Internal audits are done once a year. The last internal audit was carried out on the 21st of March 2023. ISO/IEC 17025 requirements were covered. Two opportunities for improvement and two NC were found and subsequently successfully closed.

The NCs were summarised in the document OBR-O30/2 which were presented to the management review.

The system was found meeting the requirements of ISO/IEC 17025 and IECEx.

## Management review

Management review is described in the Quality Manual and is conducted annually. The below topics are covered:

* Changes in internal and external issues
* Fulfilment of objectives
* Suitability of policies and procedures
* Status of actions from previous management reviews
* Outcome of recent internal audits
* Corrective actions
* Assessments by external bodies
* Changes in the volume and type of work or in the range of laboratory activities
* Customer and personnel feedback
* Appeals and Complaints
* Effectiveness of any implemented improvements
* Adequacy of resources
* Results of risk identification
* Outcomes of the assurance of the validity of results
* Other relevant factors, such as monitoring activities and training

The report from the management review meeting that took place on 10th of January 2023 was reviewed. It also covered the operation of the Ex Testing Laboratory, including internal audits, corrective actions, accreditation audits, customer satisfaction and complaints data. The matters covered by the meeting also addressed the relevant requirements for ISO/IEC 17025.

The system meets the requirements of this standard and IECEx.

## Contracting, subcontracting and witness testing

### Contracting

Testing Laboratory do use contracting with two external people which are working on contract for Fitidas and conducting testing according to Fitidas procedures.

These contracts were seen during the audit and in accordance with the IECEx 02 Rules.

### Subcontracting

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

|  |  |  |
| --- | --- | --- |
| Standard | Clause | Test |
| IEC 60079-0 | 26.10 | Resistance to UV light |
| IEC 60079-6 | 6.1.5 | Switching Test |
| IEC 60079-7 | 6.2.3.1 | Stator winding insulation |
|  | 6.2.3.2 | Cage rotor |
|  | 6.3.4 | Abnormal operation of luminaires |
|  | 6.3.5 | Sulphur dioxide test for level of protection "eb" for the connection of bi-pin lamp caps to lamp holders |
|  | 6.3.6 | Vibration test for level of protection "eb" for luminaires with bi-pin lamps |
|  | 6.3.7 | Tests for wiring of luminaires subject to high-voltage impulses from ignitors |
|  | 6.3.8 | Tests for electronic starters for tubular fluorescent lamps and for ignitors in level |
|  | 6.3.9 | Test for starter holders for luminaires in Level of Protection “ec” |
|  | 6.6.3 | Mechanical shock test |
|  | 6.6.4 | Test for Level of Protection "eb" ventilation of battery container |
|  | 6.7  6.7.1 6.7.2  6.7.3  6.7.4 | Verification and tests for cells and batteries of Level of Protection “ec” |
| ISO 80079-36 | 8.2.2 | Hot surface ignition test |

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 and TCDs. This was reviewed by the IECEx Assessment team and found to meet IECEx Requirements.

### Off-site and Witness testing

Testing Laboratory has a procedure POS-C-13 – Acceptance of test results addressing off-site and witness testing, which refers to IECEx OD 024 and includes information for the updating of the current information in the IECEx OD 024 Testing Register – Offsite and Witness Testing Agreements.

## Training and competence

The document POS-O-03 defines the procedure of training. Technical roles are defined in the procedure OD-O-11 - Resposibility and authority in Laboratory.

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.

On regular basis there is training of people in the Testing Laboratory on the operations, outcome of audits, revised standards and procedures related to IECEx. An example of a comprehensive training session presentation was shown and was found to meet the requirements of the IECEx.

Fiditas has a very strong qualification process for ensuring competent staff. There is a competency matrix for ExTL. This was found to be satisfactory, meeting the requirements of the IECEx.

Details of staff competencies are included in the site assessment report.

## Complaints and appeals(including appeals to IECEx)

There is a general process in Fiditas for internal complaints and external complaints (POS-O-17 Non-compliance management; POS-C-09 Complaints, appeals and withdrawal of certificates; POS-C-10 Complaints, appeals and withdrawal of notifications), internal and external audits. This covers the complaints mechanism requirements of the ExTL.

The system was found meeting the requirements of ISO/IEC 17025 and IECEx.

## Impartiality

Impartiality and confidentiality is addressed in Quality Manual. Fiditas is an independent, privately own body that does not design or produce any products that it tests or verifies. Staff are not involved with or influenced by any customers/stakeholders.

To ensure there are no conflicts of interest, Fiditas requires all their employees, both internal and external, to report any former and/or present connections with the organizations, the testing of which products they will be assigned to. If there are any such connections, Fiditas assesses the risk in terms of threats to impartiality, and either resigns from involving this staff into the certification process or proves that there is no conflict of interests.

The company follows procedure OD-O-05Keeping business secrets and ensuring impartiality and O-O-04 Procedure and criteria for ensuring impartiality to identify risks to its impartiality on an on-going basis. This includes risks that arise from its activities, or from its relationships, or from the relationships of its personnel.

All staff have signed regarding impartiality, honesty and confidentiality of their work. During the assessment, the list and several signed documents were checked.

The process meets the requirements for ISO/IEC 17025 and IECEx.

Independence between testing and the certification decision is maintained via the ISO/IEC 17065 procedures which were confirmed during the assessment.

## Active involvement in development of Decision Sheets

Draft decision sheets are discussed internally during ExTL team meetings which are held regularly, and comments are prepared by nominated expert to provide feedback to the IECEx secretariat.

## Special facts to be noted

None other than those listed in the report.

## 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 or provided separately and include:

* Details of issues raised and how these have been resolved
* Checklist for ISO/IEC 17025
* Completed Technical Capability Document (TCD)
* Photos of the facilities/tests witnessed are included in the above TCD
* Information on competencies
* Information on contracting/subcontracting
* Assessors’ notes
* Other

~~NOTE Assessors are to amend above list as appropriate~~

## Recommendations

Based on the assessment performed on 12thand 13th September 2023, Fiditas Ltd. Is recommended for acceptance in the IECEx scheme as:

* An ExTL in the IECEx Certified Equipment Scheme

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

|  |  |
| --- | --- |
| Thierry Houeix | Herbert Peters |
| IECEx Lead Assessor | IECEx Assessor |

Date: 2023-11 08

# ExCB for IECEx Certified Equipment Scheme

Not relevant for this assessment.

# ExTL for IECEx Certified Equipment Scheme

## Assessment references

### General references

1. IECEx02 IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules of Procedure
2. IECEx OD003-2 Assessment, surveillance assessment and re-assessment of ExCBs and ExTLs operating in the IECEx 02, IECEx Certified Equipment Scheme
3. IECEx OD009 Issuing of CoCs, ExTRs and QARs
4. ISO/IEC 17025General 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. IECEx OD280 - Guide to Certification of Non-electrical Equipment and Protective Systems
2. IECEx OD060 IECEx Guide for Business Continuity – Management of Extraordinary Circumstances or Events Affecting IECEx Certification Schemes and Activities

## Candidate ExTL persons interviewed

|  |  |
| --- | --- |
| Name | Position |
| Mario Mačković | Head of Laboratory, Member of the Board, Quality Manager |
| Marino Kelava | Member of the Board |
| Stipo Đerek | Deputy of the Head of Laboratory and Deputy of Quality Manager |

## Associated ExCB

Laboratory is integral with ExCB.

## Organisation

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

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Mario Mačković | Head of Laboratory, Member of the Board | >18 |
| Marino Kelava | Member of the Board | >20 |
| Stipo Đerek | Deputy of the Head of Laboratory | >30 |

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

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Mario Mačković | Quality Manager  Laboratory Manager | >18 |

### Other employees in ExTL activity

|  |  |  |
| --- | --- | --- |
| Name | Title/responsibility | Experience in Ex (years) |
| Stipo Đerek | Certification engineer | >30 |
| Damir Korunić | Certification engineer | >22 |
| Marino Kelava | Certification engineer | >20 |
| Marco Ghisu | Certification engineer | >14 |
| Rikard Slunjski | Certification engineer | >10 |

## Organizational structure

See Annex B.

## Resources

Fiditas Ex Testing Laboratory have adequate number of staff for the current level of business. The staff are experienced and have demonstrated required level of competence in evaluation and testing of Ex equipment. The laboratory and office are located infacilities which provide an adequate environment for the work. The testing equipment is suitable for the range of tests carried out in house.

## Test reports issued

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

It is important to note that this is initial assessment for Fiditas as a new applicant ExTL. But they have a long experience in this field. In previous years they provided reports for the purpose of ATEX certification. Also, they operated as testing facility under the OD-024 for other ExTLs. Total number of ATEX and IECEx projects for last 2 years is given in the following table.

| Standard numbers | Type of protection or other identifying information | Number of issued reports  (for last 2 years) |
| --- | --- | --- |
| IEC 60079-1 | Explosive atmospheres -  Part 1: Equipment protection by flameproof enclosures “d” | 42 |
| IEC 60079-2 | Explosive atmospheres -  Part 2: Equipment protection by pressurized enclosures “p” | 7 |
| IEC 60079-5 | Explosive atmospheres -  Part 5: Equipment protection by powder filling “q” | 2 |
| IEC 60079-6 | Explosive atmospheres -  Part 6: Equipment protection by oil immersion “o” | 0 |
| IEC 60079-7 | Explosive atmospheres -  Part 7: Equipment protection by increased safety “e” | 48 |
| IEC 60079-11 | Explosive atmospheres -  Part 11: Equipment protection by intrinsic safety “i” | 21 |
| IEC 60079-13 | Explosive atmospheres -  Part 13: Equipment protection by pressurized room "p" and artificially ventilated room "v" | 0 |
| IEC 60079-15 | Explosive atmospheres -  Part 15: Equipment protection by type of protection “n” | 2 |
| IEC 60079-18 | Electrical apparatus for explosive gas atmospheres -  Part 18: Construction, test and marking of type of protection encapsulation “m” electrical apparatus | 10 |
| IEC 60079-25 | Explosive atmospheres -  Part 25: Intrinsically safe systems | 0 |
| IEC 60079-26 | Explosive atmospheres -  Part 26: Equipment with Separation Elements or combined Levels of Protection | 0 |
| IEC 60079-28 | Explosive atmospheres -  Part 26: Equipment with Separation Elements or combined Levels of Protection | 10 |
| IEC 60079-30-1 | Explosive atmospheres -  Part 30-1: Electrical resistance trace heating – General and testing requirements | 1 |
| IEC 60079-31 | Explosive atmospheres -  Part 31: Equipment dust ignition protection by enclosure “t” | 35 |
| IEC TS 60079-46 | Explosive atmospheres – Part 46 - Equipment assemblies | 4 |
| IEC TS 60079-47 | Explosive atmospheres – Part 47 - Equipment protection by 2-wire intrinsically safe Ethernet concept (2-WISE) | 0 |
| IEC 80079-36 | Explosive atmospheres – Part 36 - Non-electrical equipment for explosive atmospheres - Basic methods and requirements | 4 |
| IEC 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" | 4 |

NOTE 1 Above include reports to IEC 60079-0 unless otherwise shown

Table above shows only Test Reports completed in last two years at Fiditas. Number of test reports completed by Fiditas personnel at former ExTL Ex-Agencija exceeds two hundreds.

## National accreditation

Fiditas has national accreditation certificate from Croatian Accreditation Agency to ISO/IEC 17025:2017. A copy of the accreditation certificate is attached at Annex C. Accreditation is valid until 4th of April 2024.

Fiditas is a Notified Body, No. 2829 regarding ATEX Directive 2014/34/EU.

## Calibration

The system for calibration of test equipment is addressed in Testing Laboratory procedures which were revieved during the assessment and found to comply with ISO/IEC 17025 and IECEx requirements.

All equipment requiring calibration is calibrated by external accredited calibration service providers.

The status of confirmation of metrological control of a given equipment is recorded in the equipment digital card and confirmed by a sticker on the equipment.

All equipment used for witnessed testing was found to be in calibration.Calibration system was checked and found meeting the requirements of ISO/IEC 17025 and IECEx.

## Tests witnessed during the assessment visit

|  |  |  |  |
| --- | --- | --- | --- |
| Standard and edition | Clause number | Test | Comments |
| IEC 60079-0 Ed.7 | cl. 26.4.5 | IP66 test to IEC 60529 | Testing performed competently. |
| IEC 60079-0 Ed.7 | cl. 26.5.1 | Temperature measurement | Testing performed competently. |
| IEC 60079-0 Ed.7 | cl. 26.13 | Surface resistance test of parts of enclosures of non-metallic materials | Testing performed competently. |
| IEC 60079-1 Ed.7 | cl. 15.2.2 | Determination of explosion pressure (reference pressure) | Testing performed competently. |
| IEC 60079-1 Ed.7 | cl. 15.2.3.2 | Overpressure test (static) | Testing performed competently. |
| IEC 60079-2 Ed.6 | cl. 16.4 | Purging and dilution test for pressurized enclosures with internal source of release | Testing performed competently. |
| IEC 60079-11 Ed.6 | cl. 10.1 | Spark ignition test | Testing performed competently. |
| IEC 60079-11 Ed.6 | cl. 10.5.3 | Temperature rise test on batteries/determination of the maximum short circuit current | Testing performed competently. |
| IEC 60079-18 Ed.4 | cl. 8.1.1 | Dielectric strength test | Testing performed competently. |
| IEC 60079-31 Ed.3 | cl. 6.1.1.3 | Pressure test | Testing performed competently. |

All results provided evidence of staff competence in performing above testing.

## Participation in IECEx Proficiency Testing Programs

Program: PTB Ex PT Scheme

|  |  |  |
| --- | --- | --- |
| Year(s) of participation | IECEx Proficiency Testing program | General information about results |
| 2011/2012 \* | Explosion pressure - Test Round 2011 | Satisfactory |
| 2011/2012 \* | Spark ignition - Test Round 2011 | Satisfactory |
| 2013/2014 \* | Flame Transmission - Test Round 2013 | Satisfactory |
| 2013/2014 \* | Temperature Classification - Test Round 2013 | Satisfactory |
| 2015/2016 \* | Electrostatic Charge - Test Round 2015 | Satisfactory |
| 2015/2016 \* | Intrinsic Safety - Test Round 2015 | Satisfactory |
| 2017/2018 \* | Explosion Pressure - Test Round 2017 | Satisfactory |
| 2017/2018 \* | Pressurized Enclosure - Test Round 2017 | Satisfactory |
| 2021/2022 | Flameproof Joints - Test Round 2021 | Satisfactory |
| 2023/2024 | Explosion Pressure – Test Round 2023 | Enrolled for the  next IECEx PTP |
| 2023/2024 | Connection and Junction Boxes – Test Round 2023 | Enrolled for the  next IECEx PTP |

NOTE \* Fiditas personnel participated at that time on behalf of former ExTL Ex-Agencija. No warning or action signals. Results are satisfactory.

## Comments (including issues found during assessment)

Fiditas Ex Testing Laboratory has the necessary staff and quality system in place for their scope as an ExTL. A few issues were identified during the assessment.

All issues were revised to the satisfaction of the assessment team and now meet the requirements of the IECEx. Details are contained in F 004 - Site Assessment Report.

# ATF for IECEx Certified Equipment Scheme

Not relevant for this assessment.

# ExCB for Certified Service Facilities Scheme

Not relevant for this assessment.

# IECEx Conformity Mark Licensing Scheme

Not relevant for this assessment.

# ExCB for IECEx Personnel Competence Scheme

Not relevant for this assessment.

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 | In Scope |
| IEC 60079-1  Edition 7.0 | Explosive atmospheres - Part 1: Equipment protection by flameproof  enclosures “d” | In Scope |
| IEC 60079-2  Edition 6.0 | Explosive atmospheres - Part 2: Equipment protection by pressurized  enclosure “p’ | In Scope |
| IEC 60079-5  Edition 4.0 | Explosive atmospheres - Part 5: Equipment protection by powder filling “q” | In Scope |
| IEC 60079-6  Edition 4.1 | Explosive atmospheres - Part 6: Equipment protection by oil immersion “o” | In Scope |
| IEC 60079-7  Edition 5.1 | Explosive atmospheres - Part 7: Equipment protection by increased  safety "e" | In Scope |
| IEC 60079-11  Edition 6.0 | Explosive atmospheres - Part 11: Equipment protection by intrinsic safety “i” | In Scope |
| IEC 60079-13  Edition 2.0 | Explosive atmospheres -  Part 13: Equipment protection by pressurized room "p" and artificially ventilated room "v" | In Scope |
| IEC 60079-15  Edition 5.0 | Explosive atmospheres – Part 15: Equipment protection by type of protection "n" | In Scope |
| IEC 60079-18  Edition 4.1 | Explosive atmospheres – Part 18: Equipment protection by encapsulation “m” | In Scope |
| IEC 60079-25  Edition 3.0 | Explosive atmospheres – Part 25: Intrinsically safe electrical systems | NOT IN  THE SCOPE |
| IEC 60079-26  Edition 3.0 | Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga | NOT IN  THE SCOPE |
| IEC 60079-28  Edition 2.0 | Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation | Exception of  5.2.4, 5.2.5 and 6 |
| IEC 60079-29-1  Edition 2.1 | Explosive atmospheres - Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases | NOT IN  THE SCOPE |
| IEC 60079-29-4  Edition 1.0 | Explosive Atmospheres – Part 29-4: Gas detectors - Performance requirements of open path detectors for flammable gases | NOT IN  THE SCOPE |
| IEC/IEEE 60079-30-1  Edition 1.0 | Explosive atmospheres – Part 30-1: Electrical resistance trace heating – General and testing requirements | In Scope |
| IEC 60079-31  Edition 3.0 | Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t" | In Scope |
| IEC TS 60079-32-1  Edition 1.1 | Explosive atmospheres - Part 32-1: Electrostatic hazards, guidance  (may be used for testing purposes but not for issuing an IECEx Certificate of Conformity) | NOT IN  THE SCOPE |
| IEC 60079-32-2  Edition 1.0 | Explosive atmospheres - Part 32-2: Electrostatics hazards - Tests  (may be used for testing purposes but not for issuing an IECEx Certificate of Conformity) | Exception of  4.4, 4.6, 4.7, 4.9, 4.12, 4.13 |
| IEC 60079-33  Edition 1.0 | Explosive atmospheres – Part 33: Equipment protection by special protection “s” | NOT IN  THE SCOPE |
| IEC 60079-35-1  Edition 1.0 | Explosive atmospheres – Part 35-1: Caplights for use in mines susceptible to firedamp – General requirements – Construction and testing in relation to the risk of explosion | NOT IN  THE SCOPE |
| IEC 60079-35-2  Edition 1.0 | Explosive atmospheres – Part 35-2: Caplights for use in mines susceptible to firedamp – Performance and other safety-related matters | NOT IN  THE SCOPE |
| IS0 80079-36  Edition 1.0 | Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements | In Scope |
| 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” | In Scope |
| IEC TS 60079-39  Edition 1.0 | Explosive atmospheres - Part 39: Intrinsically safe systems with electronically controlled spark duration limitation | NOT IN  THE SCOPE |
| IEC TS 60079-40  Edition 1.0 | Explosive atmospheres - Part 40: Requirements for process sealing between flammable process fluids and electrical systems | NOT IN  THE SCOPE |
| IEC TS 60079-42  Edition 1.0 | Explosive atmospheres - Part 42: Electrical safety devices for the control of potential ignition sources from Ex-Equipment  (may be used for testing purposes but not for issuing an IECEx Certificate of Conformity) | NOT IN  THE SCOPE |
| IEC TS 60079-46  Edition 1.0 | Explosive atmospheres – Part 46 - Equipment assemblies | In Scope |
| IEC TS 60079-47  Edition 1.0 | Explosive atmospheres – Part 47- Equipment protection by 2-wire intrinsically safe ethernet concept (2-WISE) | In Scope |
| IEC 62784  Edition 1.1 | Vacuum cleaners and dust extractors providing equipment protection level Dc for the collection of combustible dusts - Particular requirements | In Scope |
| ISO 16852  Edition 2 | Flame arrestors - Performance requirements., test methods and limits for use | NOT IN  THE SCOPE |

* 1. Superseded standards

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

| Number  *Add other Standards*  *as required* | Title | Comments |
| --- | --- | --- |
| IEC 60079-27  Edition 2.0 | Explosive atmospheres – Part 27: Fieldbus intrinsically safe concept (FISCO) | In Scope |
| IEC 61241-0  Edition 1.0 | Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements | In Scope |
| IEC 61241-1  Edition 1.0 | Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosure “tD” | In Scope |
| IEC 61241-4  Edition 1.0 | Electrical apparatus for use in the presence of combustible dust - Part 4: Protection by pressurization "pD" | In Scope |
| IEC 61241-11  Edition 1.0 | Electrical apparatus for use in the presence of combustible dust – Part 11: Protection by intrinsic safety 'iD' | In Scope |
| IEC 61241-18  Edition 1.0 | Electrical apparatus for use in the presence of combustible dust - Part 18: Protection by encapsulation "mD" | In 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 | NOT IN THE SCOPE |
| IEC 62013-2  Edition 2.0 | Caplights for use in mines susceptible to firedamp - Part 2: Performance and other safety-related matters | NOT IN THE SCOPE |
| IECEx DS2015/001A  2015 10 09 | Equipment assemblies | NOT USED, REPLACED BY IEC 60079-46 |

1. Overall organisation Chart withExTL

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|  | |  | |  | | | | MANAGEMENT | | | | | | |  | | |  | | |  | |  |
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|  | |  | |  | | | | |  | | |  | | Impartiality Committee | | | | | |  |  | |  |
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| Laboratory for Explosion Protection | | |  | | Certification department | | | | |  | Department for Hazardous Area Classification | | | | |  | Department for Ex Installations | | | |  | Department for Education | |
|  | |  | |  | | |  | | | | |  | | |  | | |  | | |  | |  |

1. Organisation Chart of ExTL

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|  | | |  | | | |  | | | | | | | | Management  Coordinator for  ATEX/IECEx activities | | | | | |  | | | | |  | | | |  | |
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|  | | |  | | | |  | | | | | | |  | | |  | |  | | | | Impartiality Committee | | | | | | |  | |
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|  | | |  | | | |  | | | Head of ExTL | | | | | | |  | |  | | | |  | | |  | | | |  | |
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|  | Laboratory for Explosion Protection | | | | | | | |  | | | | | | | | |  |  | | | | Certification department (ExCB) | | | | | | |  | |
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| Testing of  material properties | | |  | | | Testing of  Ex protection | | | | |  | | | | | Ex protection Assessment  (IECEx) | | | Product certification (ATEX) | | | | | |  | | QAR/QAN section | | | |  |
|  | |  | | | | |  | | | |  | | | | | |  | |  | | | |  | | | | | |  |  | |

1. Accreditation Certificate for ISO/IEC 17025

A red and white certificate

Description automatically generated