**INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC SYSTEM FOR**

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

**EXPLOSIVE ATMOSPHERES (IECEx SYSTEM)**

**TITLE: Scope Extension Assessment Report for** **FM Approvals (FME), GB, an Accepted ExCB within the IECEx System, Equipment Scheme 02, to include ISO 80079-36 and ISO 80079-37 in their scope.**

**Circulated To: Members of the IECEx Management Committee, ExMC**

**Introduction**

FM Approvals (FME), GB, an Accepted ExCB within the IECEx System, Equipment Scheme 02, has applied to include the following Standards within their scope. FM Approvals (FME) operates as an associated ExCB with FM Approvals LLC, US, as ExTL. A scope extension assessment was also conducted on FM Approvals LLC (US) as the associated ExTL. The assessment report has been issued as ExMC/1807/DV for voting at the same time.

A special assessment was arranged and conducted in accordance with OD 060 IECEx Guide for Business Continuity - Management of Extraordinary Circumstances or Events Affecting IECEx Certification Schemes and Activities Ed. 2.1.

IS0 80079-36 Ed. 1.0 Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements

ISO 80079-37 Ed. 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”

This report details the assessment findings of this scope extension with the IECEx

Assessment Team recommending the acceptance of the above scope extension.

***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 2022 03 31***

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

*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 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 FM Approvals FME

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

## Details of body

### Country

United Kingdom

### Name of body

FM Approvals FME

### Name and title of nominated principal contact

|  |  |  |
| --- | --- | --- |
| Name | Title | E-mail address |
| Andrew Was | Auditing and Quality Manager – EMEA and APAC | [andrew.was@fmapprovals.com](mailto:andrew.was@fmapprovals.com) |

## Assessment information

### Members of the assessment team

|  |  |
| --- | --- |
| Name | Role |
| Ron Webb | IECEx Lead Assessor |

### Place(s) of assessment

|  |
| --- |
| Voyager Place, Maidenhead, Berkshire, SL6 2PJ, United Kingdom.  It should be noted that the address was previously 1 Windsor Dials, Windsor, Berkshire. SL4 1RS, as referenced in the reassessment report ExMC/1378/R |

### Assessment date(s)

13 January 2022. This scope extension assessment was conducted as a remote assessment under the provisions of IECEx OD 060.

## Application information and background information on the assessment

Scope extension as ExCB requested by way of completed ExMC/251A/Inf form dated 2021-06-03.

In noting that FM Approvals LLC (US) operates as the associated ExTL for FM Approvals FME (GB) a scope extension assessment was also conducted on FM Approvals LLC (US) as the associated ExTL. FM Approvals LLC, US, assessment report has been issued as ExMC/1807/DV for voting at the same time as this report.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Standard** | | **Edition** | | **Title** |
| IS0 80079-36 | | Edition 1.0 | Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements |
| 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” |

## Scopes

### ExCB scope for equipment certification scheme

The scope for the ExCB is shown in Annex A.

# Common information

## Legal entity of body

Not relevant as this is a scope extension assessment. This was covered in the re-assessment

refer to Re-assessment Report ExMC/1378/R.

## Financial support

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## History

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Documentation

### Quality manual

No specific changes for non-electrical equipment.

### Procedures

The procedures included the requirements of OD 280. These procedures were reviewed at the assessment and found to be appropriate.

### Work instructions

While covered in the assessment reported in ExMC/1378/R, it was confirmed that FME’s work instructions also cover the new standards listed under the scope extension request.

### Records (including test records where relevant)

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

### Document change control

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Confidentiality

Not relevant as this is a scope extension assessment. This was covered in the re-assessment

refer to Re-assessment Report ExMC/1378/R.

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

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Recognitions and agreements

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Internal audit

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Management review

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Contracting, subcontracting and witness testing

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Off-site and Witness testing

Should they need to they have made provision in their procedures to do witness testing using OD 024. There are existing procedures in place for the use of OD 024.

## Training and competence

FME were able to demonstrate they have sufficient competent staff to carry out the ExCB activities associated with the standards in the scope extension. Details of staff competencies are included in the site assessment report.

## Complaints and appeals (including appeals to IECEx)

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Impartiality

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Active involvement in development of Decision Sheets

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Special facts to be noted

None other than those mentioned throughout the report.

## Supporting documentation

Copies of additional supporting information for this assessment have been provided to the applicant and the IECEx Secretariat. These are provided separately and include:

* Information on competencies
* TCD

## Recommendations

Based on the assessment performed on 13 January 2022, FME is recommended for the extension of scope to include ISO 80079-36 and ISO 80079-37 shown in Annex A as:

* An ExCB in the IECEx Certified Equipment Scheme

|  |
| --- |
| Ron Webb |
| IECEx Lead Assessor |

7 February 2022

**3. ExCB for IECEx Certified Equipment Scheme**

**3.1** **Assessment references**

### General References

1. IECEx 02 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. 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 Non-electrical Equipment and Protective Systems

## Candidate ExCB persons interviewed

|  |  |
| --- | --- |
| Name | Position |
| Andrew Was | Auditing and Quality Manager – EMEA and APAC |
| Andrew Lozinski | Group Manager |

## Associated ExTL(s)

The Associated ExTL is FM Approvals LLC

## Associated certification functions

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## National marks and certificates

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Standards accepted

See Annex A.

## National differences to IEC standards

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

## Organisation

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

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Witali Engelhardt | Manager new business EMEA | 10+ |

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

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Andrew Was | Auditing and Quality Manager – EMEA and APAC | 40+ |

### Name and title of signatories for certification

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience (years) |
| Andrew Was | Auditing and Quality Manager – EMEA and APAC | 40+ |
| Nick Ludlam | Senior Engineering Specialist | 40+ |

### Other employees in ExCB activity

|  |  |  |
| --- | --- | --- |
| Name | Title | Experience in Ex (years) |
| Victor Aluko-Oginni | UK Certification manager (UKCA) | 10+ |

## Organizational structure

See Annex B

## Indemnity insurance

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Resources

Adequate personnel resources were available. Staff with knowledge of the standards are identified. The competency database was demonstrated to show the competency of relevant staff

## Committees (such as governing or advisory boards)

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Certification operations

### National approval/certification methods

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

### Certification policy

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

### Application for certification

FME Approvals plan to update their application form to include the two new standards of ISO 80079-36 and 80079-37 once their scope extension has been accepted.

### Certification decision

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

### Suspension and cancellation of certificates

Not relevant as this is a scope extension assessment. This was covered in the re-assessment refer to Re-assessment Report ExMC/1378/R.

## Certificates issued (for scope extension standards)

No specific IECEx certificates have been issued by FME Approvals, for the Standards requested in the scope extension, but they have been involved in several certification projects for non-electrical equipment through their UK Notified Body (now called Approved Body) for ATEX and have demonstrated experience in these areas. These certificates used the EN 13463 series of standards. These standards were used as a basis for development of the ISO 80079-36/37 standards.

## National accreditation

The national accreditation certification for ISO/IEC 17065 is shown in Annex C. While the UKAS certificate does not show an expiry date, the currency of the accreditation was confirmed during the assessment.

## Assessment of manufacturers and issue of QARs

Not relevant as this is a scope extension assessment. This was covered in the re-assessment.

## Comments (including issues found during assessment)

Staff interviewed showed a good understanding of the scope extension standards

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 4.0 | Explosive atmospheres - Part 6: Equipment protection by liquid 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 60079-15  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 | In scope |
| IEC 60079-26  Edition 4.0 | Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga | In scope |
| IEC 60079-28  Edition 2.0 | Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation | In scope |
| IEC 60079-29-1  Edition 2.0 | Explosive atmospheres - Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases | In scope |
| IEC 60079-29-4:  Edition 1 | Explosive atmospheres - Part 29-4: Gas detectors - Performance requirements of open path detectors for flammable gases | In 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 2.0 | Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t" | In scope |
| IS0 80079-36  Edition 1.0 | Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements | Scope Extension |
| 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” | Scope Extension |
| IEC TS 60079-40  Edition 1.0 | Explosive atmospheres - Part 40: Requirements for process sealing between flammable process fluids and electrical systems | In scope |
| IEC 61779-1  Edition 1.0 | Electrical apparatus for the detection and measurement of flammable gases - Part 1: General requirements and test methods | In 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 | In 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 % gass | 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 |

* 1. *Superseded standards*

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

| Number | 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 61241-1-1  Edition 2 | 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 | In scope |
| IEC 61241-4:  Edition 1.0 | Electrical apparatus for use in the presence of combustible dust - Part 4: Type of protection 'pD' | In scope |
| IEC 61241-11:  Edition 1.0 | Electrical apparatus for use in the presence of combustible dusts - 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 62086-1  Edition 1.0 | Electrical apparatus for explosive gas atmospheres - Electrical resistance trace heating - Part 1: General and testing requirements | In scope |

1. Overall Organisation Chart

Timeline

Description automatically generated

1. Accreditation Certificate for ISO/IEC 17065

