An Introduction to the IECEx Certified Service Facility Scheme

February 2018
Pillars of the IEC building

Standards
Development and Maintenance

Conformity Assessment to relevant Standards
Pillars of the IEC building

Conformity Assessment to relevant Standards
Standards put into practice...

Conformity Assessment systems provide independent verification of claims of compliance with Standards related to:

- safety
- performance
- reliability
- inter-operatability
- competence

on the basis of testing and assessment of production processes, people and management systems
IEC’s Conformity Assessment Systems

24 Member IEC Board on Conformity Assessment (CAB)

IECEE
System of Conformity Assessment Schemes for Electrotechnical Equipment and Components
- CB Scheme
- CB-FCS Scheme
- PV Programme
- E3 Energy Efficiency
- Hazardous Substances

IECEx
System for Certification to Standards Relating to Equipment for use in Explosive Atmospheres
- Ex Equipment
- Ex Services
- Ex Personnel

IECQ
Quality Assessment System for Electronic Components, assemblies, materials and related processes
- Components + assemblies
- Processes
- HSPM
- Avionics
- LED Lighting

IECRE
System for certification to Standards relating to equipment for use in renewable energy applications
- Wind Energy
- Marine Energy
- PV Solar
IEC’s Conformity Assessment Systems

24 Member IEC Board on Conformity Assessment (CAB)

IECEEx
System for Certification to Standards Relating to Equipment for use in Explosive Atmospheres

Ex Equipment

Ex Services

Ex Personnel
IEC System for Certification to Standards Relating to Equipment for use in Explosive (‘Ex’) Atmospheres.
IECEx System & Schemes

IEC System for Certification to Standards Relating to Equipment for use in Explosive ("Ex") Atmospheres.
“Ex” is **not** an Industry of its own!

“Ex” is part of almost every Industry known to Man … examples include:

- Automotive refuelling stations or petrol stations
- Oil + gas extraction
- Oil refineries, rigs and processing plants
- Gas pipelines and distribution centres
- Chemical processing plants
- Printing industries, paper and textiles
- Hospital operating theatres
- Aircraft refuelling and hangars
- Surface coating industries
- Coal mining
- Sewerage treatment plants
- Grain handling and storage
- Woodworking areas
- Sugar refineries, storage, packaging + distribution
- Metal surface grinding, eg aluminium dusts and particles.
- Transportation
- Pharmaceuticals
- Food processing
- Furniture manufacturer
- …. many others
Cause of explosions …

IGNITION SOURCES
- Electrical Arcing and Sparking
- Mechanical Sparks
- Welding
- Naked Flames
- Hot Gases
- Incandescent Materials
- Hot Surfaces
- Electromagnetic Radiation
- Ionising Radiation
- HF Radiation
- Lasers
- Exothermic Chemical Reactions
- Ultrasonics
- Lightning
- Static Electricity
- Adiabatic Compressions
- Cathodic Protection Currents

Air
21% Oxygen

Flammable or Combustible Gas, Vapour or Dust

Source of Ignition
IECEx covers all safety – related aspects of explosion protected equipment over the complete life cycle.
Schemes within the IECEx System

IECEx System

IECEx Equipment Scheme
Certification of Ex Equipment

IECEx Conformity Mark License Scheme

IECEx Services Scheme
Certification of Ex Service Providers

IECEx Certified Persons Scheme (CoPC)
Competency to work in Ex field
Scope and Standards for IECEx include ...

- Electrical Equipment Conformance to IEC 60079 Series and IEC 61241 Series requirements
- Non-electrical Equipment to ISO/IEC 80079 Series
- Hazardous Area Classification to IEC 60079-10
- Ex Equipment Installation and Inspection to IEC 60079-14 and IEC 60079-17 requirements
- Ex Equipment Maintenance, Repair, Overhaul and Reclamation to IEC 60079-19
- Personnel Competence to ISO/IEC 17024
Schemes within the IECEx System

IECEx System

IECEx Equipment Scheme
Certification of Ex Equipment

IECEx Conformity Mark License Scheme

IECEx Services Scheme
Certification of Ex Service Providers

IECEx Certified Persons Scheme (CoPC)
Competency to work in Ex field
IECEx Certified Service Facility Scheme

Certifying providers of

- **Design**
- **Selection**
- **Installation**
- **Inspection**
- **Maintenance**
- **Repair**
- **Overhaul**
- **Reclamation**

services on Ex Equipment
IECEx Services Scheme – Repair Workshops

Ex Equipment High Capital cost

Ex Equipment usually Cheaper to Repair than Replace!

Incorrect Repairs can compromise inherent Ex protection

IECEx Certifies Workshops to IEC 60079-14, -17 and -19

IECEx 03A Guide to Applicant Workshops www.iecex.com
Relevant IEC “Service” Standards

IEC 60079-14

Design
Selection
Erection

IEC 60079-19

Repair
Overhaul
Reclamation

IEC 60079-17

Inspection
Maintenance
Initial Inspection
IECEx Certified Service Facilities Scheme

Assesses and certifies that organizations and workshops that provide Ex equipment installation, inspection, repairs, maintenance, overhaul and reclamation services to the Ex industry work in accordance with the requirements of IEC International Standards IEC 60079-14 and IEC 60079-19.

The system includes on-site audits prior to issuing the IECEx Certificate and periodic audits to ensure Repair and Overhaul processes continue to comply with requirements and provides a:

- Facility Assessment Report (FAR)
- IECEx Service Facility Certificate of Conformity (CoC)

and is supported by the IECEx CoPC Scheme
IECEx On-Line Certificate System

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

Information  ▼ Publications  ▼ Members’ Area  ▼ Certificates & Licenses  ▼ Meetings & Events  ▼ Contact  Home

News Releases

Explosions avoided
IECEx, UNECE and IEC Brazilian NC conference on safety in the Ex field

Preventing dust explosions
IECEx certification provides high level of protection

Mining: A high-risk activity
IECEx ensures protection and safety for Ex equipment and workforce

Competitive advantages
IECEx present at Australasian Oil and Gas Exhibition and Conference

IECEx launches first mobile app
to show international certificates for equipment used in explosive atmospheres

IECEx-AFSEC seminar in Africa

Quick Links
IECEx Certificates and Licences
Certification Bodies (ExCBs) - Equipment
Certification Bodies (ExCBs) - Service Facilities
Certification Bodies (ExCBs) - Certified Persons
Certification Bodies (ExCBs) - Conformity Mark
ExTAG Decision Sheets List
IEC TC31 & IECEx Meeting Schedule

Featured
IECEx systems endorsed by UNECE
IECEx mobile apps

IECEx Malaysia 2014
Kuala Lumpur 19-20 February 2014
Organized by the IEC and IECEx, together with Department of Standards Malaysia, and in conjunction with UNECE (United Nations Economic Commission for Europe), the 2014 IECEx International Conference will take place on 19 and 20 February 2014.

More information from the meeting website
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<td>2017-06-28</td>
<td>DEK</td>
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<td>BAS</td>
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**IECEx Certified Service Facility Scheme**

**International Electrotechnical Commission System**

**For Certification to Standards Relating to Equipment for Use in Explosive Atmospheres**

**CERTIFIED EQUIPMENT**

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<tr>
<td>IEC System for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEx System). IECEx Certificates of Certified Service Facility Scheme enables. IECEx Certification Bodies to issue new IECEx Certificates of Conformity On-line. Full Public access to consult, view and print issued IECEx Certificates. Click here for a link to the INSTRUCTIONS FOR USE. For any questions, please contact Mr. Chris Agius, IECEx Secretary.</td>
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**Certificates**

**Facility Assessment Reports**
Thank you for your attention

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