



An Introduction to the **IECEX** **OCS**

Mark Amos
IECEX Secretariat
Business Manager

IECEX Industry Symposium
September 2023



IECEX Certification Schemes



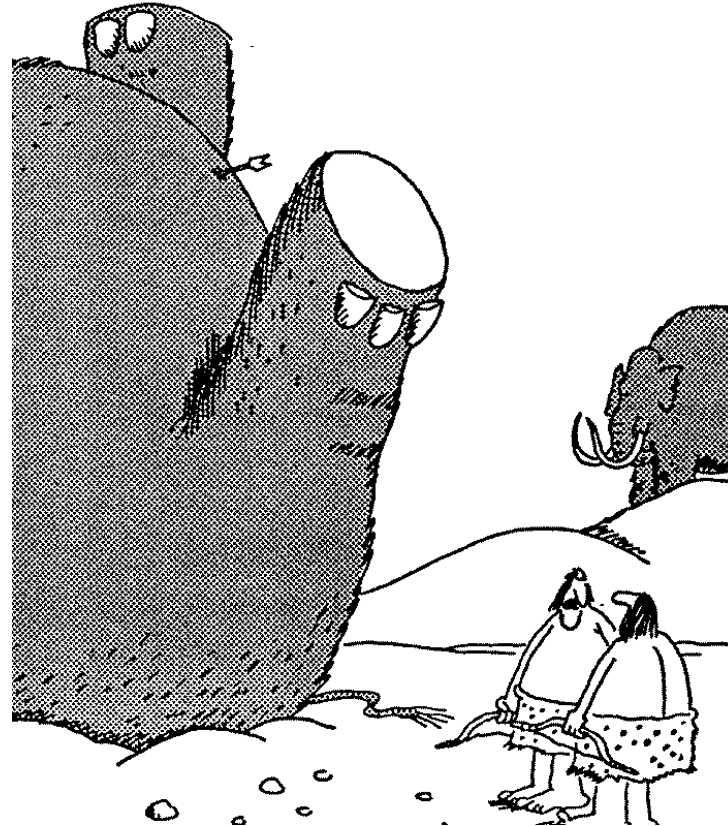
... applications of Standards

**Standards as documentation of
collected knowledge, and
experience and learnings**

**Promoting good ideas and
advising how to avoid repeating
mistakes**

... the basis for the first cave painting as the first Standard ??

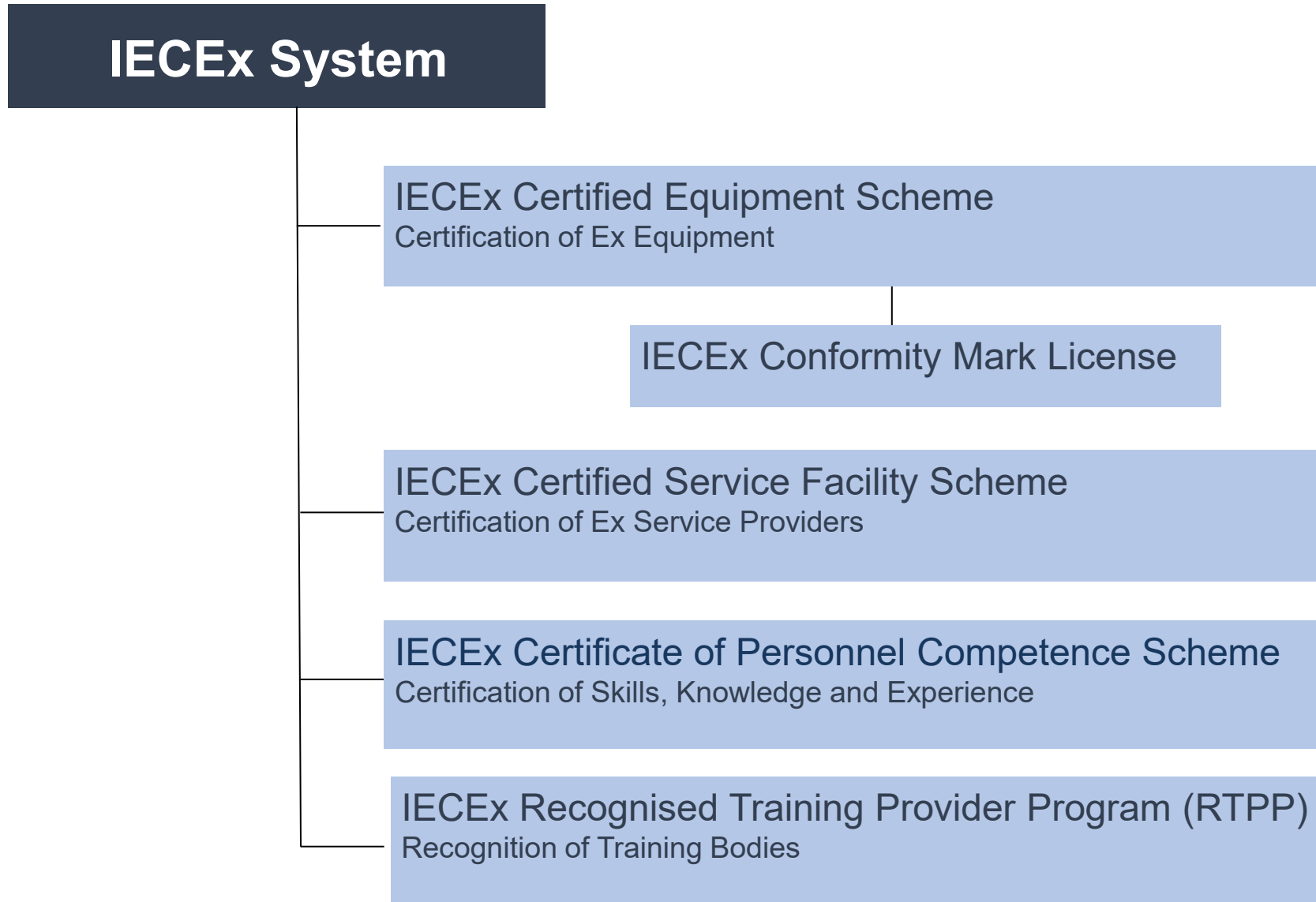
Larson



“Hey Ugg, we should make a note of that spot.”



IECEX Certification Schemes





IECEX Certificates of Conformity



Equipment

IECEX Certificate of Conformity
INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

Certificate No.: IECEx PTB 16 0585Z Issue No.: 0
Status: Current
Date of Issue: 01/04/16-07 Page 1 of 4

Applicant: VTT Expert Services Ltd
P.O. Box 115
FIN-00031 VTT
Finland

Electrical Apparatus: Ultrasonic sensor (ULTRASONIC) type series 5000 (U1)***
Sub-category: S0

Type of Protection: Overhaul Requirements, Ex-hazard Safety

Marking: Ex ia IIC T4

Approved for issue on behalf of the IECEx Certification Body: VTT Expert Services Ltd
Position: Team Leader

Signature: (for printed version)
Date:

Certificate issued by: VTT Expert Services Ltd, Oskari 78, Espoo, P.O. Box 115, FIN-00031 VTT, Finland

Certified by: Physikalisch-Technische Bundesanstalt (PTB), Unter den Eichen 87, D-10585 Berlin, Germany

Ex Equipment, Ex Components + Systems + Mechanical Ex Equipment

'One-offs' & Assemblies

IECEX Certificate of Conformity
INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

UNIT VERIFICATION

Certificate No.: IECEx VTT 11 0001X Issue No.: 0
Status: Current
Date of Issue: 2011-02-10 Page 1 of 4

Applicant: ABB Oy Machines (International)
FIN-00031 VTT
Finland

Electrical Apparatus: Converter Red cage induction motor
Serial number(s) or Unique Identification: ABB 800A 0079, no. 40227

Type of Production: Ex ps e

Marking: Ex ps IIC T3 Gb

Approved for issue on behalf of the IECEx Certification Body: VTT Expert Services Ltd
Position: Team Leader

Signature: (for printed version)
Date:

Certificate issued by: VTT Expert Services Ltd, Oskari 78, Espoo, P.O. Box 115, FIN-00031 VTT, Finland

Certified by: VTT Expert Services Ltd, Oskari 78, Espoo, P.O. Box 115, FIN-00031 VTT, Finland

Ex Equipment Unit Verification and Assemblies

Services

IECEX CoC Certified Service Facility
INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

Certificate No.: IECEx UL 80001 Issue No.: 1
Status: Current Date of Issue: 2011-03-25
Certificate Validity: Issue No. 1 (2011-03-25) Issue No. 2 (2015-03-27)

Applicant: Cycled Electrical Engineering PTE Ltd
23, Jalan Besar
Singapore

Type of Service: Repair and Overhaul according to IEC 60079-10

Type of Protection: Flameproof Enclosure "d" Increased Safety "n"

Scope of Service: Repair and Overhaul of Ex d and Ex e Rotating Machines To IEC 60079-10, 2nd Ed. (2009) and 3rd Ed. (2015)
Notes: The 2nd and 3rd editions of IEC 60079-10 are included in the scope since OD 014 and OD 016 currently reference the 2nd edition of IEC 60079-10, but the requirements in the third edition of IEC 60079-10 were audited too.

Locations covered by this Certificate: Cycled Electrical Engineering PTE Ltd, 23, Jalan Besar, Singapore

Factory Audit Report: USA LFLP A020 (2010/01)
This certificate is issued to certify that the service facility and associated facilities were assessed and found to comply with the IECEx Scheme requirements, taking into the type and scope of service listed above. This certificate is granted subject to the conditions set out in IECEx Scheme Rules, IECEx 01 and Certified Documents as amended.

Approved for issue on behalf of the IECEx Certification Body: Paul T. Kelly
Position: Principal Engineer, Global Hazardous Locations

Signature: (for printed version)
Date:

Certificate issued by: Underwriters Laboratories Inc (UL), 333 Franklin Road, Northbrook, IL 60062-2098, United States of America

Ex Services – for example, Repair to IEC 60079-19

Personnel Competence

IECEX Certificate Personnel Competence
INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

Certificate No.: IECEx CP BAS11 0015 Issue No.: 2
Status: Current Date of Original Issue: 2011-11-22 Date of Expiry: 2015-12-17

Applicant: Manggau Galwang

Scope of Competence: Ex 001 - Basic principles - Based on various parts of IEC 60079 series
Ex 002 - Classification - Based on IEC 60079-10 series
Ex 003 - Installation - Based on IEC 60079-14
Ex 004 - Maintenance - Based on IEC 60079-17
Ex 005 - Overhaul and repair - Based on IEC 60079-19
Ex 006 - Overhaul and repair - Based on IEC 60079-19
Ex 007 - Overhaul and repair - Based on IEC 60079-19
Ex 008 - Overhaul and repair - Based on IEC 60079-19

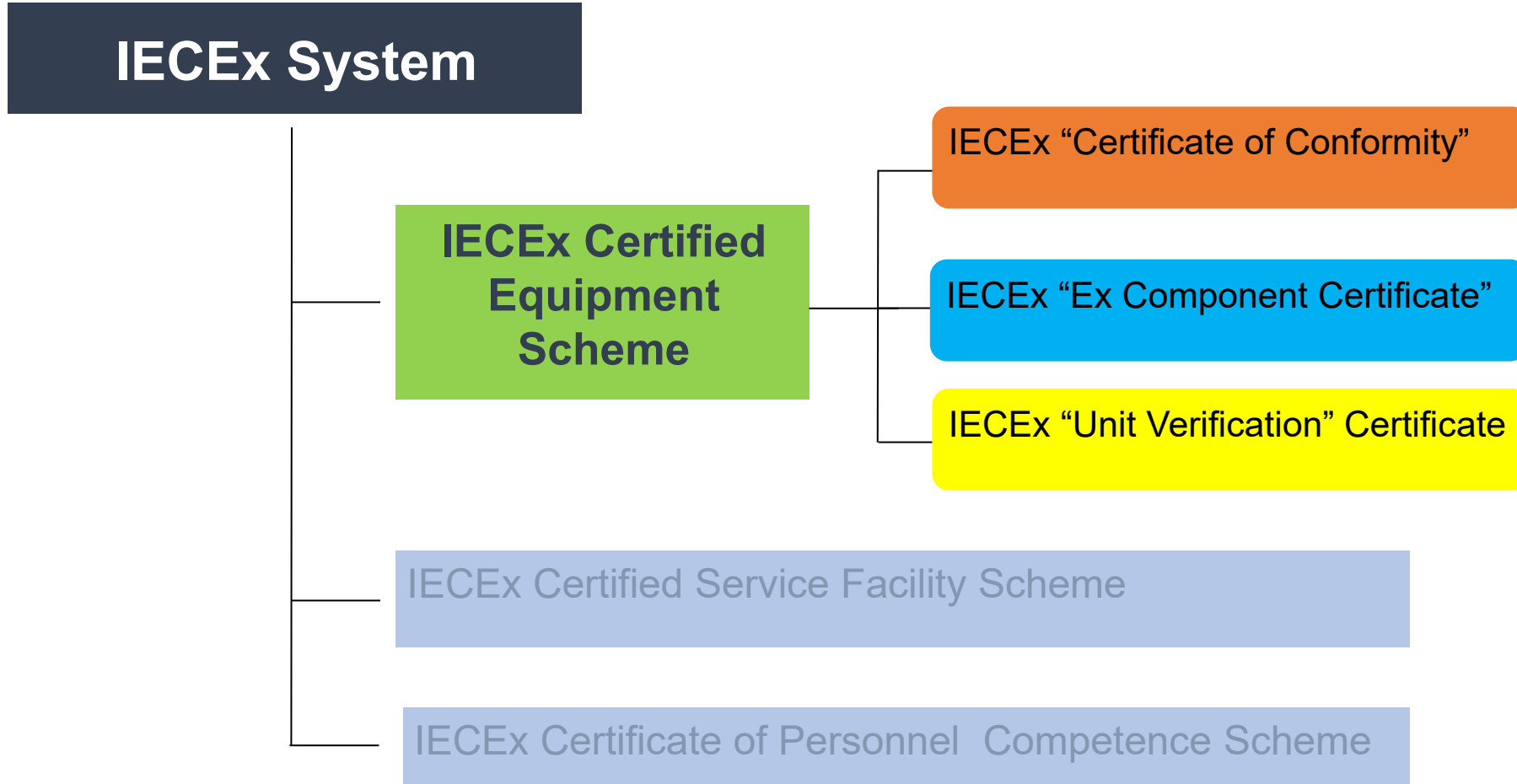
Signature: (for printed version)
Date:

Certificate issued by: Underwriters Laboratories Inc (UL), 333 Franklin Road, Northbrook, IL 60062-2098, United States of America

Ex Competent Person, with Photo ID Card



IECEX Certificates of Conformity



IECEX Equipment Scheme

IECEX “Certificate of Conformity”

IECEX “Ex Component Certificate”

IECEX “Unit Verification” Certificate

IECEX “Unit Verification” Certificate for **Assemblies**

According to ISO/IEC 17067 - Conformity assessment — *Fundamentals of product certification and guidelines for product certification schemes*

ISO Type 5 – Mass production Testing + Surveillance

ISO Type ‘N’ Unit Certification – “One-Offs” or limited production



IMPORTANT FACTS ABOUT IECEx CERTIFICATES



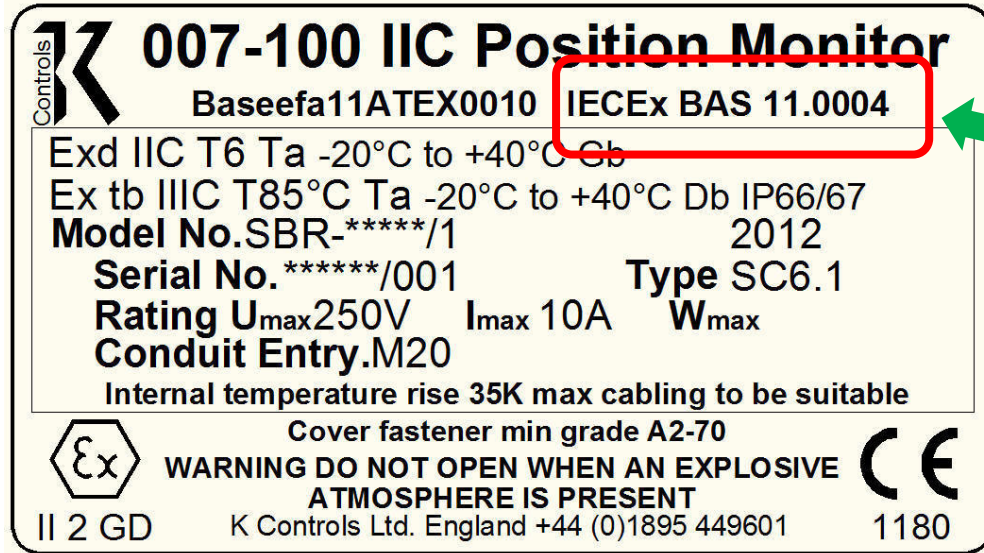
It is **VERY important** for continued safety that

1. you understand how to identify IECEx Certified Equipment and validate this against an IECEx Certificate
2. All types of users and readers of IECEx Certificates are provided with and know how to find and use critical information about the equipment that they are:
 - Selecting for use
 - Installing for use
 - Inspecting before, during and after installation
 - Operating
 - Maintaining, repairing and overhauling

SO

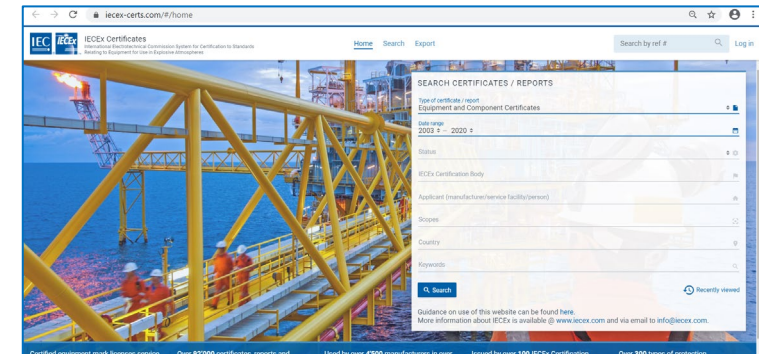


The IECEx Certificate number **MUST** appear on product



<https://www.iecex-certs.com/#/deliverables/CERT/3339/view>

Under the IECEx Certified Equipment Scheme, the IECEx Certificate number displayed on the product matches the Certificate Number as shown on the Master version on the IECEx website – *this enables **instant verification of claims of IECEx Certification** via the IECEx OCS ... more about this later*





Attachments & Annexes to Certificates



				IECEX Certificate of Conformity	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres <small>for rules and details of the IECEX Scheme visit www.iecex.com</small>					
Certificate No.:	IECEX BAS 08.0111X	Issue No.:	1	Certificate history: Issue No. 1 (2010-2-10) Issue No. 0 (2009-2-10)	
Status:	Current				
Date of Issue:	2010-02-10	Page 1 of 4			
Applicant:	Hawke International A Division of Hubbell Limited A Member of the Hubbell Group of Companies Oxford Street West Ashton-under-Lyme Lancashire OL7 0NA United Kingdom				
Electrical Apparatus:	PR411 and PR453 Cable Glands				
Optional accessory:					
Type of Protection:	Flameproof, Increased Safety and Dust				
Marking:	Ex d IIC Ex e II Ex ID A21 IP66 (-60°C ≤ ta ≤ +60°C) for the PR453, or +100°C for the PR411				
Approved for Issue on behalf of the IECEx Certification Body:	R S Sindler				
Position:	Managing Director				
Signature: (for printed version)	_____				
Date:	_____				
1. This certificate and schedule may only be reproduced in full. 2. This certificate is not transferable and remains the property of IECEx. 3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website .					
Certificate issued by:	Baseefa Rockhead Business Park Staden Lane Buxton Derbyshire SK17 9RZ United Kingdom				

Baseefa Rockhead Business Park Staden Lane, Buxton, Derbyshire SK17 9RZ United Kingdom		
ANNEX to IECEX BAS 08.0111X	Issue No. 0	Date: 2009/02/13

Each of the following gland types may be manufactured in brass, stainless steel or aluminum and may be supplied with specified alternative entry thread forms.

Variant 0.1 - Type PR 411

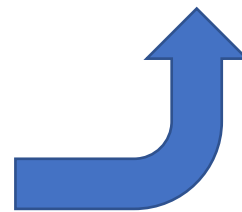
The Type PR 411 cable gland is intended for use with an effectively filled circular cable in flameproof applications. For other protection concepts the cable gland is intended for use with effectively filled circular, unarmoured, armoured, steel basket weave armoured or braided (screened) cable and comprises the following components :-

- a. An entry component in the size ranges Os to F (M16 to M75)
- b. A compressible sealing ring
- c. A nylon skid washer
- d. A threaded compression spigot

Variant 0.2 - Type PR 453

The Type PR 453 cable gland is intended for use with an effectively filled and circular armoured or braided cable and comprises the following components :-

- a. An entry component, in the size range Os to F (M16 to M75)
- b. A compressible sealing ring
- c. A combined compression spigot and armour clamping cone
- d. A dedicated armour, or braid, clamping ring
- e. A middle nut
- f. An outer seal assembly (sleeve seal and support ring Os-F)
- g. A back nut



Any Attachments / Annexes to the online certificate contain additional product information, Installation Instructions, Operation Instructions etcetra and MUST always be read with the certificate AND provided with downloaded or printed copies of the Certificate

It is important that you understand some definitions and the differences between them ...

- Ex Equipment
- Ex Component
- Assembly
- Specific Conditions of Use
- Schedule of Limitation
- ExTR Summary
- QAR Summary

...we will explore these as we proceed through the presentation
(further references = IEC 60079-0 and IECEx Rules)



Registry c

IEC **IECEX** **IECEX Te**

**INTERNATIONAL ELECTROT
IEC Certification System for**
for rules and details of the IECEx :

ExTR Ref. No.: **US/UL/ExTR19.0045/00**

ExTR Free Ref. No.: **4788143549.4.1.**

List of Standards Covered: **IEC 60079-0:2017 Edition:7.0, IEC 60079-11:2011 Edition:6.0, IEC 60079-31:2013 Edition:2, IEC 60079-7:2017 Edition:5.1**

Issuing ExTL: **UL - UL LLC**

Endorsing ExCB: **UL - UL LLC**

Manufacturer: **Eaton's Crouse-Hinds Business
1201 Wolf St.
Syracuse, NY 13208**

Location of Manufacturer: **United States of America**

Ex Protection: **Ex ec ia IIC T4 Gc
Ex ia tb IIC T135°C Db IP66**

Ratings: **Luminaire input 120-277Vac, 50/60Hz, 0.84A
Controller Input 277Vac, 50/60Hz**

Equipment: **LED Luminaires**

Model Reference: **VMV LED Luminaire, Models 3L, 5L, 7L, 9L, and**

Related IECEx Certificates:
IECEX UL 19.0039X Issue 0

Comments:

1) Only a Summary Report is shown
2) Registration page according to the

IEC **IECEX** **IECEX Certificate of Conformity**

Certificate No.: **IECEX UL 19.0039X** Page 2 of 3

Date of issue: **2019-10-11** Issue No: **0**

Manufacturer: **Eaton's Crouse-Hinds Business
1201 Wolf St.
Syracuse, NY 13208
United States of America**

Additional manufacturing locations: **Eaton Crouse-Hinds
1700 Blue Hills Drive NE
Roanoke, VA 24012
United States of America**

**COOPER ELECTRIC LTD.
No. 189 Liuyuan
Changzhou,
China**

**Eaton Electrical (Australia) Pty Ltd.
10 Kent Road
Mascot, NSW 2020
Australia**

This certificate is issued as verification that a sample(s), representative of product, the IEC Standard list below and that the manufacturer's quality system, relating to the assessed and found to comply with the IECEx Quality system requirements. This certificate IECEx Scheme Rules, IECEx:02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and its identified documents, was found to comply with the following standards

IEC 60079-0:2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11:2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-31:2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7:2017 Edition:5.1	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

This certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report: **US/UL/ExTR19.0045/00**

Quality Assessment Reports:
AU/TSA/QAR06.0020/11 **GB/BAS/QAR07.0041/09** **US/UL/QAR17.0013/01**

Test Report and Quality Assessment Report Summaries are connected to the IECEx Certificate on page 2

and Factory Audit
been issued
assessment

ports





Certificates Up-Issued to cover changes



Changes may include:

- New models added
- Design changes
- New Manufacturing sites added
- Administrative changes (change in company name or address)

AND

- The certificate must always explain why it has been up-issued and what the changes are in the *Details of Certificate Change* field

IECEX Certificate of Conformity
INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX BAS 10.0043X** Page 1 of 4
Status: **Current** Issue No: 6
Date of Issue: 2020-01-24

Certificate history:
Issue 5 (2019-06-19)
Issue 4 (2017-04-11)
Issue 3 (2016-07-21)
Issue 2 (2013-09-13)
Issue 1 (2011-09-05)
Issue 0 (2010-10-14)

IECEX Certificate of Conformity
INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX BAS 10.0043X** Page 1 of 4
Status: **Current** Issue No: 0
Date of Issue: 2010-10-14

Applicant: **Hyundai Heavy Industries Company Limited**
Electro Electric Systems Division
1 Jeonha-Dong
Dong-Gu
Ulsan City
682-792
Korea, Republic of

Equipment: **A range of motors of frame size 160 to 200**



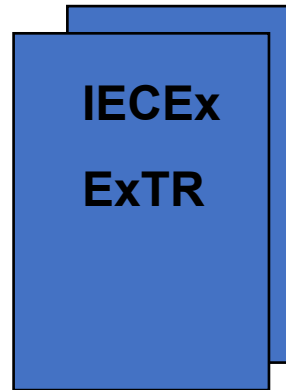
IECEX Equipment Scheme

IECEX “Certificate of
Conformity”

Certificates for Mass Production OR “one-off” Items

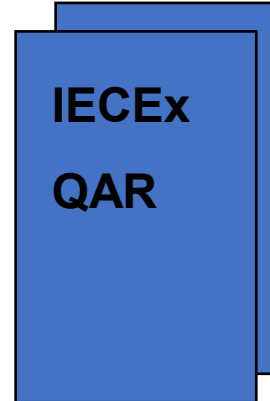
**Mass
Production**

**Product
Assess/Testing**



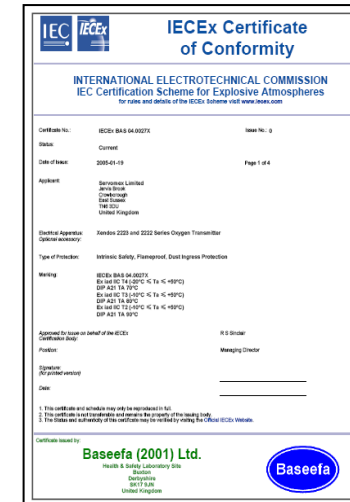
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**Factory Audit
+ surveillance**



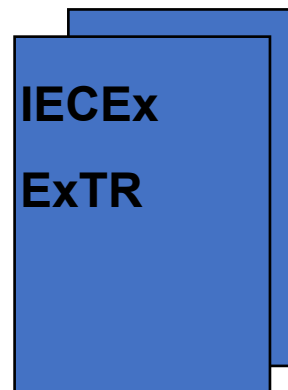
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IECEX CoC



**“One-Off” or
Limited
Number
Manufacture**

**Product
Assess/Testing**



=





IECEX “NORMAL” EQUIPMENT Certificate of Conformity



- Covers “future” **mass production** runs.
- No limit for the number of units of product
- Do not expire or require up-issue with a change of the Standard(s)
- Test samples must comply with all relevant requirements of all relevant Ex Standards
- Ongoing Factory / factories Quality Management System Assessment is required.
- Will have an “X” suffix to Cert # if there are Specific Conditions of Use for the equipment
- Any ANNEXES to the Certificate MUST also be read when reading the Certificate

IECEX **IECEX Certificate of Conformity**

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres
for rules and details of the IECEX Scheme visit www.iecex.com

Certificate No.: **IECEX CSA 13.0003X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 4 Issue 3 (2015-01-13)
Date of Issue: 2021-12-21 Issue 2 (2013-09-29)
Applicant: **Gevisa S/A** Issue 1 (2013-02-14)
Rodovia SP 101 - Campinas- Monte Mor km 3.8 Issue 0 (2013-01-24)
13001-970 Campinas, SP
Brazil

Equipment: **Range of Pegasus Cage Induction Motors**

SPECIFIC CONDITIONS OF USE: YES as shown below:

i. The enclosures are purged with air at a flow rate of not less than 180 m³/hour for a period of not less than 15 minutes for frame size 500, 50 minutes for frame size 800 and 45 minutes for frame size 1000.

ii. Each and every machine is to be subjected to an internal overpressure test of 45 mbar (frame size 500), 49.8 mbar (frame size 800) or 48.0 mbar (frame size 1000) for two minutes, followed by a leakage test at 29.3 mbar for frame size 500, 32.8 mbar for frame size 800 or at 32.0 mbar for frame size 1000. The leakage shall not exceed 15.31 m³/h for frame size 500, 58.94 m³/h for fame size 800 or 8.81 m³/h for frame size 1000.

iii. The pressurization and purging system attached to the enclosures must be set to provide the above purge flow rate and time and set to provide a low pressure monitoring system set to a minimum of 2.0 mbar.

Annex:
[Annex 01 to IECEX LCIE 21.00016 X issue 00 .pdf](#)



IECEX Equipment Scheme

IECEX “Ex Component
Certificate”



IECEX “Ex Component” Certificates



... are for the certification of

“equipment intended to be part of Ex Equipment which is incomplete, not intended to be used alone, and requires additional evaluation prior to incorporation into Ex Equipment”

The format & content is the same as a “normal” Certificate of Conformity with the following differences:

- The Certificate # always has a ‘U’ suffix
- Has a special title of “Ex Component Certificate”
- Always Includes a special **Schedule of Limitations** field that contains CRITICAL INFORMATION necessary to correctly apply the Ex Component

The image shows a sample of an IECEX Certificate of Conformity for an Ex Component. The certificate is titled "IECEX Certificate of Conformity" and is issued by the International Electrotechnical Commission (IEC) Certification System for Explosive Atmospheres. The certificate number is IECEX BAS 21.0037U, and the status is Current. The date of issue is 2021-12-20. The applicant is E&S TEC Co, Ltd., located in Korea. The Ex Component is a Self-regulating heating cable typed XH**-2CT. The certificate includes a Schedule of Limitations with seven items detailing specific conditions for use.

IECEX Certificate of Conformity	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres <small>for rules and details of the IECEX Scheme visit www.iecex.com</small>	
Ex COMPONENT CERTIFICATE	
Certificate No.:	IECEX BAS 21.0037U
Status:	Current
Date of Issue:	2021-12-20
Applicant:	E&S TEC Co, Ltd. 9-8 Dongtansandan 9gil, Dongtan-myeon, Hwaseong-si, Gyeonggi-do, 18487, Korea, Republic of
Ex Component:	Self-regulating heating cable typed XH**-2CT
<small>This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).</small>	
SCHEDULE OF LIMITATIONS:	
<ol style="list-style-type: none">1. For details on the flameproof joints, the manufacturer shall be contacted.2. Non-transmission test of the cylindrical joint of the switch has been conducted by considering the test factor in Table 10 in IEC 60079-1 up to ambient temperature as +70 °C.3. Pilot lamp & selector switch shall only be installed in flameproof enclosure with the maximum internal volume of 35 liters for Group IIC.4. Pilot lamp & selector switch shall only be installed in flameproof enclosure with the maximum internal volume of 160 liters for Group IIB+H2.5. Pilot lamp & selector switch shall only be installed in flameproof enclosure with reference pressure less than 20 bar.6. Pilot lamp & selector switch shall only be installed in flameproof enclosure with enclosure walls having minimum engagement length of 20 mm for M30 x 1.5.7. When it is installed in the dust explosive atmosphere, the warning "POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS" shall be applied (For enclosure covered with a non-conductive material, propagation brush discharges shall be avoided.).	

IECEX Equipment Scheme

IECEX “Unit
Verification” Certificate

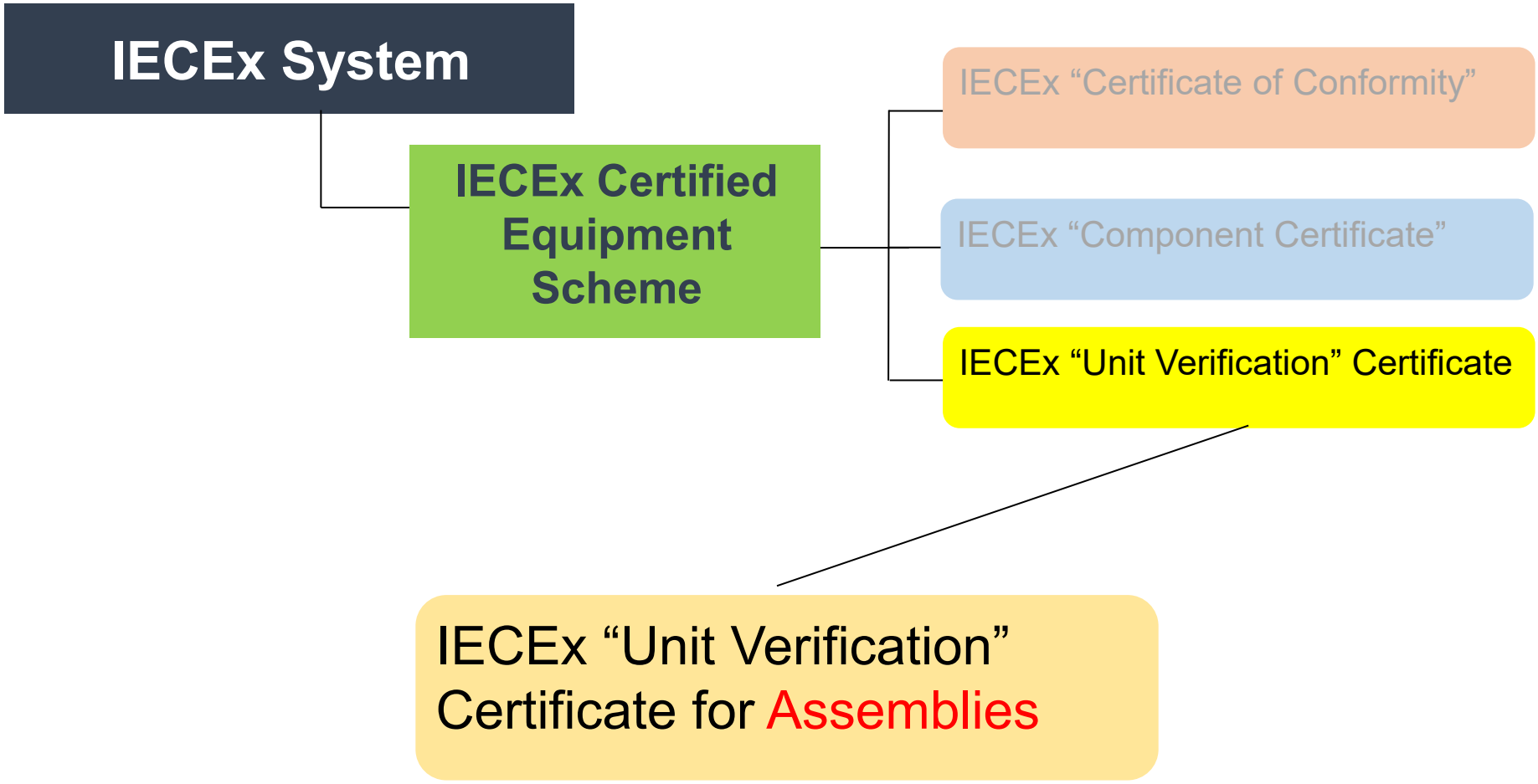


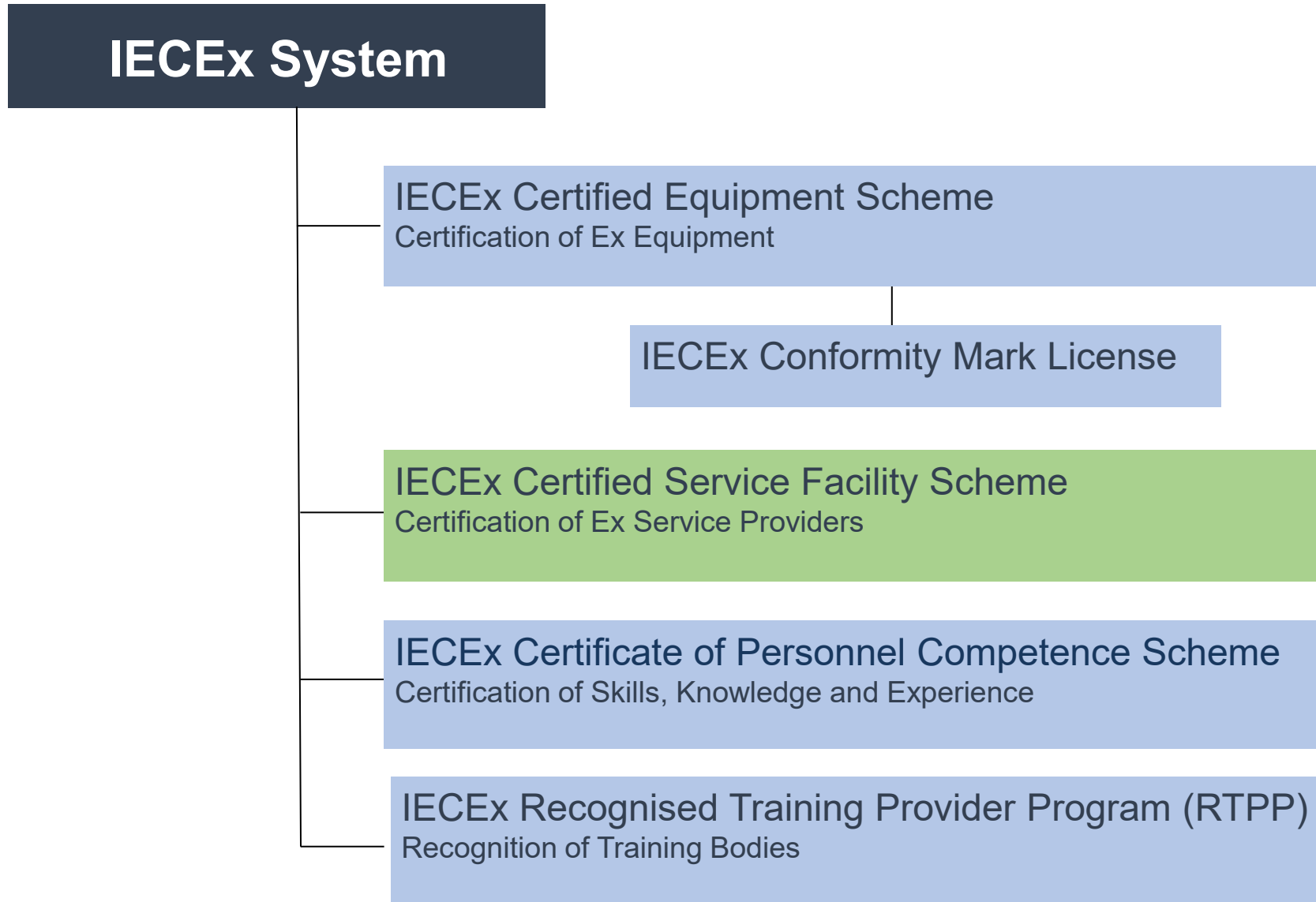
IECEX "Unit Verification" Certificates



- An IECEX Unit Verification Certificate (UVC) covers a defined number of products/items that are produced under a **single production run**.
- IECEX UVCs do NOT cover "future" mass production manufacturing runs.
- UVCs are similar in format and content to other IECEX Certificates BUT
 - Have a different title
 - Require a linked ExTR Summary
 - DO NOT require a linked QAR Summary
 - All requirement of all relevant standards apply.
 - Include a special field for specifying the Serial # of covered units
 - Cannot be up-issued to add units or change any details of models, design, construction, testing etcetra

 		IECEX Certificate of Conformity	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres <small>for rules and details of the IECEX Scheme visit www.iecex.com</small>			
UNIT VERIFICATION			
Certificate No.:	IECEX ITS 10.0065X	issue No.:0	Certificate history:
Status:	Current		
Date of Issue:	2011-02-14	Page 1 of 3	
Applicant:	Amot Controls Western Way Bury St. Edmunds Suffolk IP33 3SZ United Kingdom		
Electrical Apparatus: Serial number(s) or Unique Identification:	Purge Control Cabinets P00337E1A1 to P00337E1A6 inclusive.		



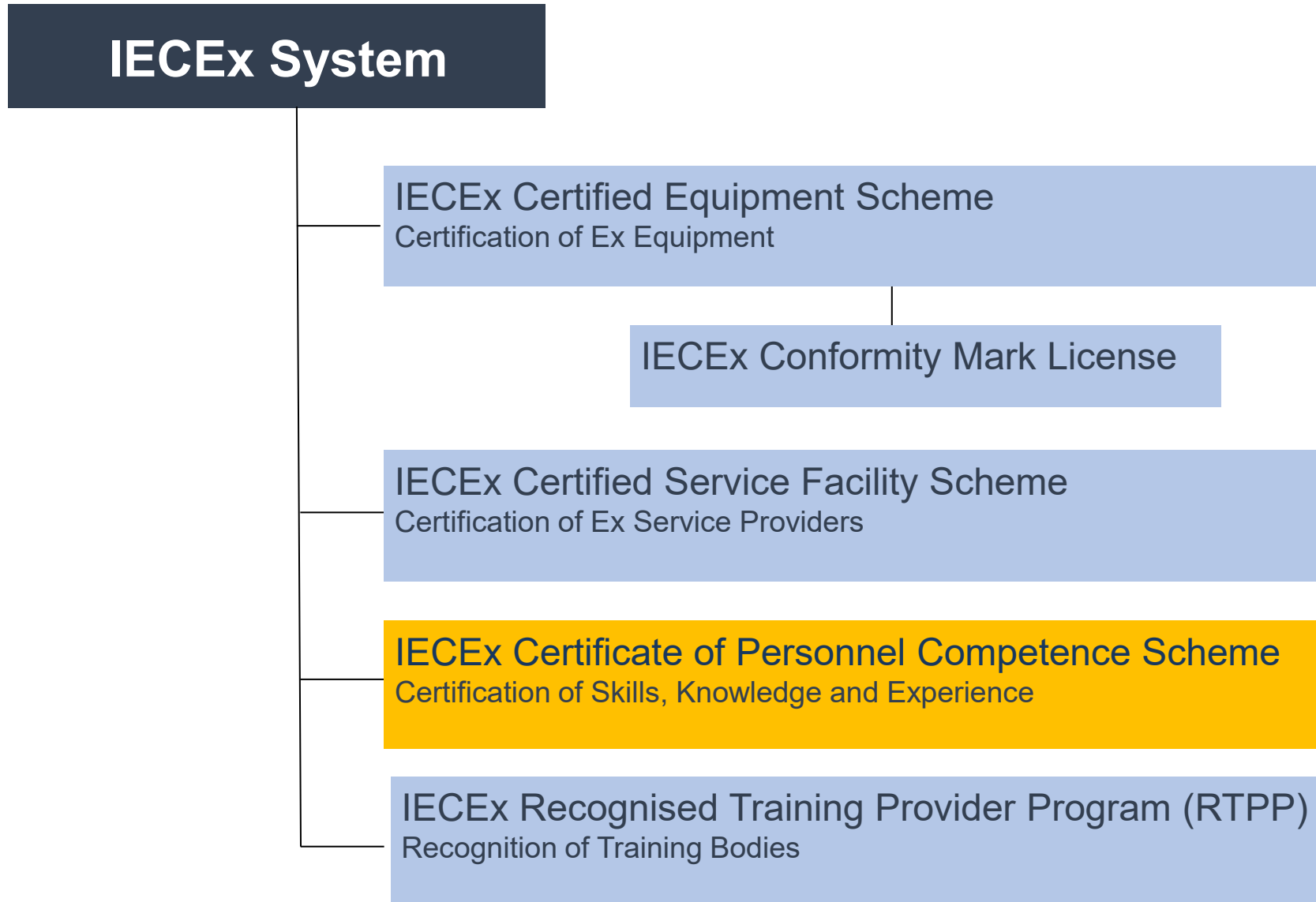


- Covers facilities providing services according to
 - IECEx 60079-10-*
 - IEC 60079-14
 - IEC 60079-17
 - IEC 60079-19
- Supported by FAR as a record of ongoing Facility Quality Management System Assessment, equipment and staff competence
- Do not expire or require up-issue with a change of the Standard(s)



The image shows a sample of an IECEx Certificate of Conformity (CoC) for a Certified Service Facility. The certificate is issued by the International Electrotechnical Commission (IEC) Certification System for Explosive Atmospheres. It is for a facility in the Netherlands, Van Meer Productions B.V., which provides repair and overhaul services according to IEC 60079-19. The certificate is current as of 2022-02-23 and is the second issue of two. The scope of service includes repair, overhaul, and maintenance of electrical rotating equipment with types of protection d, e, fr, nA, p, and t, as well as non-electrical equipment Ex h, mainly pumps, mixers, and propellers, and non-electrical type of protection constructional safety "c", control of ignition sources "b", and liquid immersion "k". The certificate is issued as verification that the service facility and associated locations were assessed and found to comply with the IECEx Scheme requirements.

	IECEX CoC Certified Service Facility	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres <small>for rules and details of the IECEx Scheme visit www.iecex.com</small>		
Certificate No.: IECEX DEK S0006	Page 1 of 1	<u>Certificate history:</u> Issue 2 (2022-02-23) Issue 1 (2014-11-21) Issue 0 (2011-11-17)
Status: Current	Issue No: 2	
Date of Issue: 2022-02-23		
Applicant: Van Meer Productions B.V. Welgelegen 4 4691 SJ Tholen Netherlands		
Type of Service: Repair and Overhaul according to IEC 60079-19		
Type of Protection: Flameproof Enclosure "d", Increased Safety "e", Other, Pressurisation "p", Type of Protection "n"		
Scope of Service: Repair, overhaul and maintenance of electrical rotating equipment with types of protection d, e, fr, nA, p and t. Repair, overhaul and maintenance of non-electrical equipment Ex h, mainly pumps, mixers and propellers, non-electrical type of protection constructional safety "c", control of ignition sources "b", liquid immersion "k"		
Locations covered by this Certificate: Van Meer Productions B.V. Welgelegen 4 4691 SJ Tholen Netherlands		
Facility Audit Report: NL/DEK/FAR11.0017/10		
<small>This certificate is issued as verification that the Service Facility and associated locations were assessed and found to comply with the IECEx Scheme requirements, relating to the type and scope of service listed above. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 03 and Operational Documents as amended.</small>		



- Covers skills, knowledge and experience in work activity combinations (as per IECEX OD 504 based on IEC and ISO/IEC Standards for Ex equipment and services)
- Supported by PCAR as a record of ongoing assessment to verify continued competence
- DOES expire and require reassessment every 5 years



IECEX Certificate Personnel Competence

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEX Scheme visit www.iecex.com

Certificate No.: IECEX CP XRT23.0155	Issue No: 0
Status: Current	Date of Original issue: 2023-08-09
Applicant: Robert Wanyoike Kenya	Date of Expiry: 2028-08-09

Scope of Competence:
(Units according to IECEX OD 504)

- Ex 001 – Principles of protection in explosive atmospheres knowledge
- Ex 004 - Maintenance - Based on IEC 60079-17
- Ex 007 - Visual & Close Inspection - Based on IEC 60079-17
- Ex 008 - Detailed Inspection - Based on IEC 60079-17



For Detailed information on Scope Application and any Limitations in accordance with IECEX OD 504 click on PCAR Number below:

PCAR Reference Number:
NO/XRT/PCAR23.0155/00



IECEX Online Certificate System

("IECEX OCS")

<https://www.iecex-certs.com/#/home>



iecx-certs.com/home



IECEX Certificates

International Electrotechnical Commission System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres

[Home](#) [Search](#) [Export](#)

SEARCH CERTIFICATION

Type of certificate / report
Equipment Certificate

Date range
2003 – 2019

Status

IECEX Certification Body

Applicant (manufacturer/ser

Scopes

Country

Keywords

IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX IBE 08.0005X** Page 1 of 4 [Certificate history](#)
Status: **Current** Issue No: 4 Issue 3 (2017-07-03)
Date of Issue: 2021-12-20 Issue 2 (2016-04-14)
Issue 1 (2012-07-27)
Issue 0 (2006-10-06)

Applicant: **PHOENIX CONTACT GmbH & Co. KG**
Flachsmarktstraße 8
32825 Blomberg
Germany

Equipment: **NAMUR Isolating Switch Amplifier MACX MCR-(EX)-SL-(NAM)-YT(-SP) and MACX MCR-EX-SL-NAM-NAM(-SP)**

Optional accessory:

Type of Protection: **Intrinsic Safety, Type 'ic'**

Marking: **MACX MCR-EX-SL-(NAM)-YT(-SP):**
[Ex ia Ma] I
[Ex ia Ga] IIC
[Ex ia Da] IIC
Ex ec [ia Ga] IIC T4 Gc
MACX MCR-SL-(NAM)-YT(-SP):
Ex ec IIC T4 Gc

Approved for issue on behalf of the IECEx Certification Body: **Alexander Henker**
Position: **Deputy Head of department Certification Body**

Signature: _____
(for printed version)

Date: _____

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:
IBEXU
IBEXU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg
Germany

- Certificates and reports always live and current
- Saved, publicly viewable and downloadable as a PDF file
- Provides for Multiple Pages to a Certificate + Attachments
- Page 1 identifies the CB issuing the Certificate
- QR Code for instant verification of downloaded copies of Certificates
- All other certificates in the same series visible and accessible by links in the Certificate History field in upper right of page 1
- Online documents are not signed but facility exists where an ExCB is requested to provide signed (but uncontrolled copies)



IECEX OCS – SECURITY FEATURES



- The online version is the MASTER version >>> *Copies as PDF files, printouts etc are UNCONTROLLED and must NOT be trusted as correct, complete or current*
- Certificates issued by ALL ExCBs in the one place >>> *if not on IECEX website – then not issued !*
- Data Backed up by IEC Central Office, Geneva
- Certificate / Report Number automatically generated by system and ALL *Certificate #s begin with “IECEX...”*
- ExCBs only issue CoCs within their accepted scope
- Certificates + reports can only be deleted by Secretariat



IECEX OCS Tools



Home Search Export

Information about the content and preparation of IECEX Certificates and Reports for each IECEX Scheme can be found in the [prescriptive versions of IECEX OCS](#)

Search certificates or reports by reference number / applicant / manufacturer / keyword ...

OR / AND use the filters below to refine your search criteria or the search results

56 534 RESULTS Sort by: Ref number (ascending)

FILTERS Clear filters

Issue date 2023

Type

- Certified Equipment (137179)
- Component Certificate (2983)
- Equipment Certificate (59351)
- EYTR (12789)
- OAR (27882)
- Certified Persons (13293)

Status

- Cancelled (4488)
- Current (91795)
- Suspended (256)
- Expired (0)
- Issued (0)
- Withdrawn (0)

Issuer

- BAS - Baseefa (17710)
- BAS - Baseefa (2001) Ltd. (1)
- BAS - Baseefa (2001) Ltd. (178)
- BAS - SGS Baseefa Limited (e499)
- BAS - SGS UK Limited (110)

Scopes

- Only show results matching ALL of the selected facets
- IEC Standard (56534)
- IEC Standard(PCAR) (0)
- Scope of Competence (0)

RESULTS

CURRENT IECEX BAS 04.0002 Issue 1

Equipment Certificate

2005-04-20 Issued to: Measurement Technology Limited - United Kingdom
Equipment: MTL4013 Two Channel Switch/Proximity Detector Interface - Solid State Output
IEC Standard(s): IEC 60079-0 (Ed. 3.1), IEC 60079-11 (Ed. 4)

CURRENT IECEX BAS 04.0002 Issue 2

Equipment Certificate

2009-05-06 Issued to: Measurement Technology Limited - United Kingdom
Equipment: MTL4013 Two Channel Switch/Proximity Detector Interface - Solid State Output
IEC Standard(s): IEC 60079-0 (Ed. 3.1), IEC 60079-11 (Ed. 4)

CURRENT IECEX BAS 04.0003 Issue 1

Equipment Certificate

2005-04-20 Issued to: Measurement Technology Limited - United Kingdom
Equipment: MTL4015 / MTL4016 Single / Two Channel Switch / Proximity Detector Interface - Dual Relay Output
IEC Standard(s): IEC 60079-0 (Ed. 3.1), IEC 60079-11 (Ed. 4)

CURRENT IECEX BAS 04.0003 Issue 2

Equipment Certificate

2009-05-06 Issued to: Measurement Technology Limited - United Kingdom
Equipment: MTL4015 / MTL4016 Single / Two Channel Switch / Proximity Detector Interface - Dual Relay Output
IEC Standard(s): IEC 60079-0 (Ed. 3.1), IEC 60079-11 (Ed. 4)

CURRENT IECEX BAS 04.0006 Issue 1

Equipment Certificate

2005-04-20 Issued to: Measurement Technology Limited - United Kingdom
Equipment: MTL4021 / MTL4021S Solenoid / Alarm driver
IEC Standard(s): IEC 60079-0 (Ed. 3.1), IEC 60079-11 (Ed. 4)

CURRENT IECEX BAS 04.0006 Issue 2

Equipment Certificate

[Important information](#)

Multiple criteria search methods

Download data to Excel
with preset format reports
>>> sort & filter

IECEX-PERSONS (1) (Repaired) - Excel

File Home Insert Draw Page Layout Formulas Data Review View Help ACROBAT Tell me what you want to do

Clipboard Font Paragraph Alignment Number Styles Cells Editing

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1														
34	IECEX CP BAS12.0008	1	SGS Baseefa Limited	2018-08-31	2012-08-20	CURRENT	GB	Lee Bonham	Ex 001 - Basic principles - Based on various parts of IEC					
35	IECEX CP BAS12.0008	2	SGS Baseefa Limited	2023-08-01	2012-08-20	CURRENT	GB	Lee Bonham	Ex 001 - Apply basic principles of protection in explosive					
42	IECEX CP BAS10.0002	3	SGS Baseefa Limited	2022-07-18	2010-11-19	CURRENT	GB	Mark Bell	Ex 001 - Apply basic principles of protection in explosive					
43	IECEX CP BAS12.0007	1	SGS Baseefa Limited	2018-09-30	2012-08-02	CURRENT	GB	Mark Russell	Ex 001 - Basic principles - Based on various parts of IEC					
44	IECEX CP BAS12.0007	2	SGS Baseefa Limited	2023-08-01	2012-08-02	CURRENT	GB	Mark Russell	Ex 001 - Apply basic principles of protection in explosive					
52	IECEX CP BAS14.0014	1	SGS Baseefa Limited	2022-10-18	2014-11-10	CURRENT	GB	Kyle Renwick	Ex 001 - Apply basic principles of protection in explosive					
57	IECEX CP BAS15.0006	0	SGS Baseefa Limited	2018-08-31	2015-09-01	CURRENT	GB	Joseph Innes	Ex 001 - Basic principles - Based on various parts of IEC					
58	IECEX CP BAS15.0006	1	SGS Baseefa Limited	2023-08-01	2015-09-01	CURRENT	GB	Joseph Innes	Ex 001 - Apply basic principles of protection in explosive					
70	IECEX CP BAS10.0003	2	SGS Baseefa Limited	2022-06-06	2010-11-19	CURRENT	GB	Ian Harrison	Ex 001 - Apply basic principles of protection in explosive					
96	IECEX CP BAS18.0003	0	SGS Baseefa Limited	2023-03-09	2018-03-09	CURRENT	GB	Dr Martin Killeen	Ex 001 - Apply basic principles of protection in explosive					
108	IECEX CP BAS13.0001	1	SGS Baseefa Limited	2019-06-21	2013-03-15	CURRENT	GB	Andrew Dodd	Ex 001 - Basic principles - Based on various parts of IEC					
109	IECEX CP BAS13.0001	2	SGS Baseefa Limited	2024-07-01	2013-03-15	CURRENT	GB	Andrew Dodd	Ex 001 - Basic principles - Based on various parts of IEC					
157	IECEX CP BAS14.0013	1	SGS Baseefa Limited	2022-06-01	2014-07-15	CURRENT	GB	Richard Graham	Ex 001 - Apply basic principles of protection in explosive					
161	IECEX CP BAS13.0002	0	SGS Baseefa Limited	2016-04-24	2013-04-25	CURRENT	GB	Mike Doddington	Ex 001 - Basic principles - Based on various parts of IEC					
168	IECEX CP BAS10.0002	2	SGS Baseefa Limited	2017-03-18	2010-11-19	CURRENT	GB	Mark Bell	Ex 001 - Basic principles - Based on various parts of IEC					
174	IECEX CP BAS14.0014	1	SGS Baseefa Limited	2017-11-09	2014-11-10	CURRENT	GB	Kyle Renwick	Ex 001 - Basic principles - Based on various parts of IEC					
180	IECEX CP BAS10.0003	1	SGS Baseefa Limited	2017-03-18	2010-11-19	CURRENT	GB	Ian Harrison	Ex 001 - Basic principles - Based on various parts of IEC					
181	IECEX CP BAS13.0003	0	SGS Baseefa Limited	2016-04-24	2013-04-25	CURRENT	GB	Ian Nicholson	Ex 001 - Basic principles - Based on various parts of IEC					
182	IECEX CP BAS13.0003	1	SGS Baseefa Limited	2016-04-24	2013-04-24	CURRENT	GB	Ian Nicholson	Ex 001 - Basic principles - Based on various parts of IEC					
189	IECEX CP BAS13.0006	0	SGS Baseefa Limited	2016-10-09	2013-10-10	CURRENT	GB	Demetrio Flores	Ex 001 - Basic principles - Based on various parts of IEC					

IECEX-PERSONS-IECEX-PERSONS-EFO



IECEX OCS Search Tools



This standard menu bar item enables a search from anywhere in the OCS

Use any combination of filter criteria to search the full OCS database

Home **Search** Export

Information about the content and preparation of IECEX Certificates and Reports for each IECEX Scheme can be found in the [respective versions of IECEX OD.011](#)

Search certificates or reports by reference number / applicant / manufacturer / keyword ...

OR / AND use the filters below to refine your search criteria or the search results

56,534 RESULTS

Sort by: Ref number (ascending) ▼

FILTERS Clear filters

Issue date
2003 ————— 2023

Type

- Certified Equipment (137179)
- Component Certificate (2583)
- Equipment Certificate (53951)
- ExTR (52763)
- QAR (27882)
- Certified Persons (13293)
- Certified Persons (13293)

Status

- Cancelled (4483)
- Current (51795)
- Suspended (256)
- Expired (0)
- Issued (0)
- Withdrawn (0)

Issuer

- BAS - Baseefa (1715)
- BAS - Baseefa (2001 Ltd. (1)
- BAS - Baseefa (2001) Ltd. (178)
- BAS - SGS Baseefa Limited (4449)
- BAS - SGS UK Limited (110)

Scopes

Only show results matching ALL of the selected facets ▼

- IEC Standard (56534)
- IEC Standard(PCAR) (0)
- Scope of Competence (0)
- Type of Protection (0)

Search Results:

- CURRENT** IECEX BAS 04.0002 Issue 1 [Equipment Certificate](#)
Issued to: Measurement Technology Limited - United Kingdom
Equipment: MTL4013 Two Channel Switch/Proximity Detector Interface - Solid State Output
IEC Standard(s): IEC 60079-0 (Ed. 3.1), IEC 60079-11 (Ed. 4)
- CURRENT** IECEX BAS 04.0002 Issue 2 [Equipment Certificate](#)
Issued to: Measurement Technology Limited - United Kingdom
Equipment: MTL4013 Two Channel Switch/Proximity Detector Interface - Solid State Output
IEC Standard(s): IEC 60079-0 (Ed. 3.1), IEC 60079-11 (Ed. 4)
- CURRENT** IECEX BAS 04.0003 Issue 1 [Equipment Certificate](#)
Issued to: Measurement Technology Limited - United Kingdom
Equipment: MTL4015 / MTL4016 Single / Two Channel Switch / Proximity Detector Interface – Dual Relay Output
IEC Standard(s): IEC 60079-0 (Ed. 3.1), IEC 60079-11 (Ed. 4)
- CURRENT** IECEX BAS 04.0003 Issue 2 [Equipment Certificate](#)
Issued to: Measurement Technology Limited - United Kingdom
Equipment: MTL4015 / MTL4016 Single / Two Channel Switch / Proximity Detector Interface – Dual Relay Output
IEC Standard(s): IEC 60079-0 (Ed. 3.1), IEC 60079-11 (Ed. 4)
- CURRENT** IECEX BAS 04.0006 Issue 1 [Equipment Certificate](#)
Issued to: Measurement Technology Limited - United Kingdom
Equipment: MTL4021 / MTL4021S Solenoid / Alarm driver
IEC Standard(s): IEC 60079-0 (Ed. 3.1), IEC 60079-11 (Ed. 4)
- CURRENT** IECEX BAS 04.0006 Issue 2 [Equipment Certificate](#)

[Important information](#)

Use this if you know the Certificate or Report #

SORT search results by Ref # or Date of Issue

Use this for search of all text in OCS database by keyword or keywords for occurrence of term

TIP 1: surround terms with “...” for exact match searching

TIP 2: use ‘+’ to search by multiple terms



For your clients ... IECEx Animated Videos



International Electrotechnical Commission System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres (IECEX System)

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Information

- About IECEx
- FAQs about IECEx
- IECEX Logo Guidance
- News Releases
- Partner Organisations
 - UNECE

IECEX System Objective

The objective of the IECEx System is to facilitate international trade in equipment and services for use in explosive atmospheres, while maintaining the required level of safety:

- reduced testing and certification costs to manufacturer
- reduced time to market
- international confidence assessment process of products, equipment, personnel, and facilities
- one international database listing for certified Ex equipment & Ex components, personnel, and facilities
- maintaining International Confidence in equipment, personnel, and services covered by IECEx Certification

About the IECEx

IECEX Certified Equipment Scheme

IECEX provides a means for manufacturers, regulators and users of equipment used in hazardous areas to

Certified Equipment

<https://www.iecex.com/assets/Uploads/Video/IECEX-Introduction-Animation-2021-MP4-1080G.mp4>

Certified Service Facilities

<https://www.iecex.com/assets/Uploads/Video/iecex-service-facilities-scheme-final.mp4-1080p.mp4>

Certified Personnel Competence

<https://www.iecex.com/assets/Uploads/Video/IECEX-personnel-competence-scheme-final.mp4-1080p.mp4>



QUESTIONS & DEMONSTRATIONS





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Interview with the Chair of IEC Technical Committee 31, Martin Thedens.



IECEX Informational Video

Please view this animation video for an introduction to the IECEX 02 Certified Equipment Scheme



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[Certification Bodies \(ExCBs\) - Conformity Mark Licensing](#)

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[ExTAG Decision Sheets List](#)

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