





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



IECEx Certified Equipment Scheme

IECEx 2018
International Conference

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INTRODUCING

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- Director General
- Ex-Agencija









Main Contents

IECEx Certified Equipment Scheme

- Process to gain IECEx Certificate
- Value in holding an IECEx Certificate







Introduction IECEx International Certification System

IECEx Certified Equipment Scheme

IECEx Certified Service Facilities Scheme

IECEx Conformity Mark Licensing System

IECEx Certification of Personnel Competencies (CoPC)

IECEx vision

- -Worldwide acceptance
- One standard
- Same rules
- One test
- One certificate
- One Mark







- Certification according to standards (IEC or ISO)
 - covered electrical and non-electrical equipment, systems and component
 - list of standards avaiable at www.iecex.com/publications/standards/
- Process of certification according to IECEx rules

- rules and guides and supported documents avaiable at

www.iecex.com/publications/









- All certificates avaiable "On-line"
- All ExCBs (IECEx Certification Body) and ExTLs (IECEx Test Laboratory) under peer assesmnet process
- Same format reports and certificates that use all ExCBs and ExTLs









- There are two different "types" of IECEx Certificate
- IECEx Certificate of Conformity (CoC)
 - can be issued for type of product (equipment, system and component)
 IECEx Certificate of Conformity (CoC) cover "future" production runs
- IECEx Unit Verification Certificate
 - can be issued for a <u>defined</u> number of items under a single production run

IECEx Unit Verification Certificate does not cover "future" production runs







IECEx Certificate based on the following:

- IECEx Test Report (ExTR)
 - demonstrating that the examined product type (exact product) is in conformity with specified Standards
- IECEx Quality Assessment Report (QAR)
 - presents the results of an on-site assessment of the quality management system of a manufacturer, manufacturing location or production site by an ExCB

QAR is not applicable for IECEx Unit Verification Certificate







Process to gain IECEx Certificate

- Who can issue IECEx Certificate (CoC)?
- Where can I find IECEx Certification Body (ExCB)?



www.iecex.com/information/excbs/

- . for IECEx bodies approved to operate under the IECEx Certified Facility Scheme (Ex Repair) click here
- . for IECEx bodies approved to operate under the IECEx Scheme for Certification of Personnel Competencies (CoPC) click here.
- . for IECEx bodies approved to operate under the IECEx Conformity Mark licensing System click here

Countries	Country	Identifier	Country:
	AUSTRALIA	TestSafe	Name:
Executive	AUSTRALIA	ExTC	Identifier:
ExCBs	AUSTRALIA AUSTRALIA	MSTC SIMTARS	Logo:
▶ Equipment	BRAZIL BRAZIL	NCC UL do Brasil	Contact:
Service Facilities	CANADA CANADA	Labtest QPS	Postal Address:
Certified Persons	CANADA CROATIA	CSA EXA	•
Conformity Mark	CZECH REPUBLIC	FTZU	iii ☑







Process to gain IECEx Certificate

- How can an applicant start?
- What should an applicant do?

Applicant/manufacturer needs to:

- Choose an ExCB
- Prepare application documents including technical drawings, instruction manual (OD 017)
- Complete and submit application form to choosed ExCB



IECEX OD 017

Edition 5

IECEx Operational Document

IEC System for Certification to Standards relating to Equipment for use in Explosive Atmospheres

Operational Document - Drawing and documentation Guidance for IEC Ex Certification – for use by Manufacturers and ExTLS







Process to gain IECEx Certificate

What should an applicant do?

The following information will generally be required by the an ExCB:

- Letter requesting IECEx Certificate of Conformity or Ex Test Report (ExTR)
- Exact details of the product and its manufacturing location(s)
- Whether the manufacturer has an established quality management system
- List of design standards



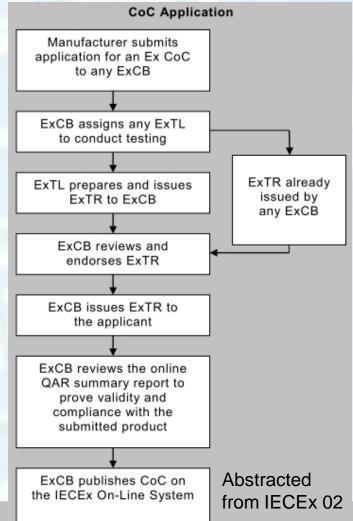




Process to gain IECEx Certificate of Conformity

(CoC)

- What should ExCB do?
 - Review the request
 - Review documentation
 - Prepare and send quotation for certification



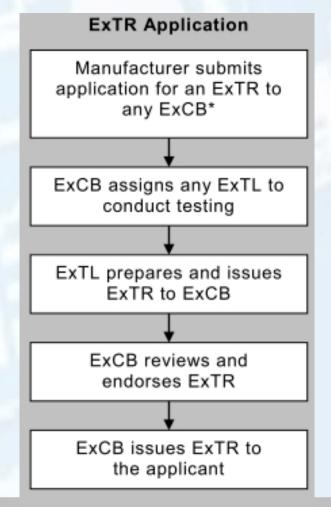






Process to gain IECEx Test Report (ExTR)

- ExTR is prepared by ExTL
- ExTR must be endorsed by ExCB



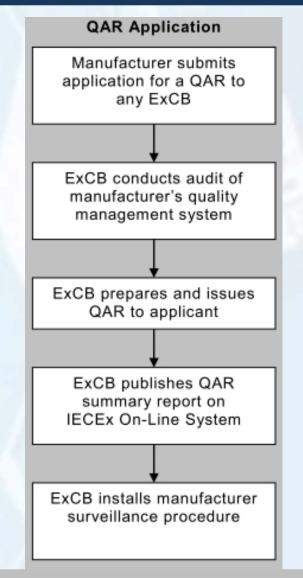






Process to gain QAR

- Manufacturer's quality system must comply with ISO 9001
- It is not a requirement that the manufacturer has a certified ISO 9001Quality system
- Manufacturer's quality system must comply with ISO / IEC 80079-34
- IECEx OD 208

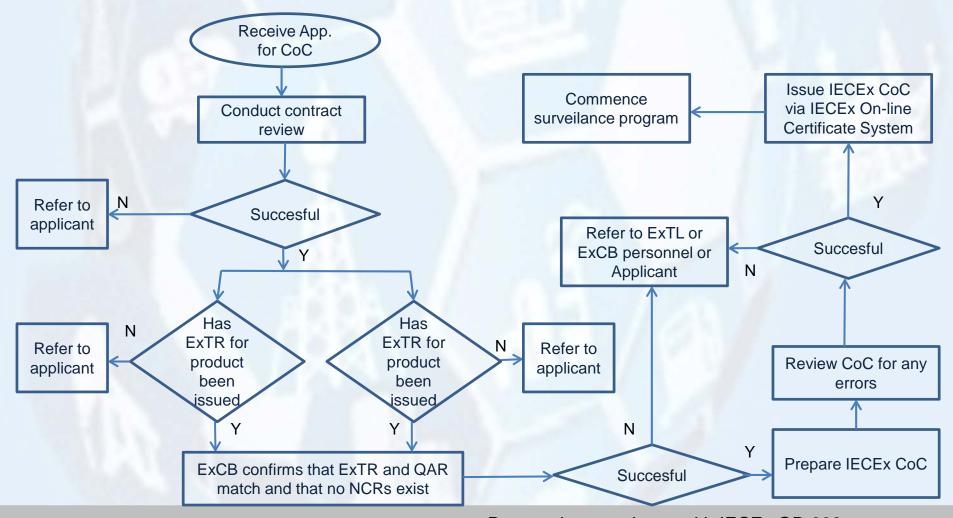








Process for issuing IECEx Certificate of Conformity

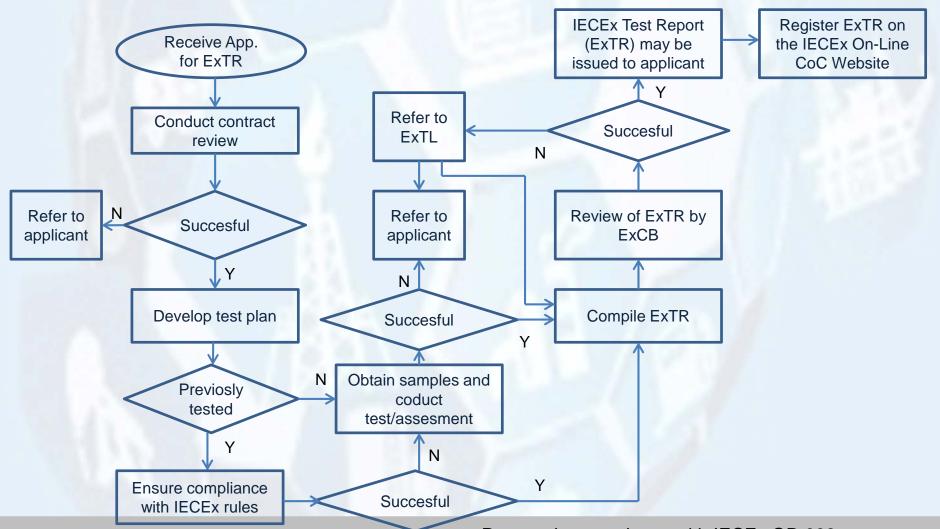








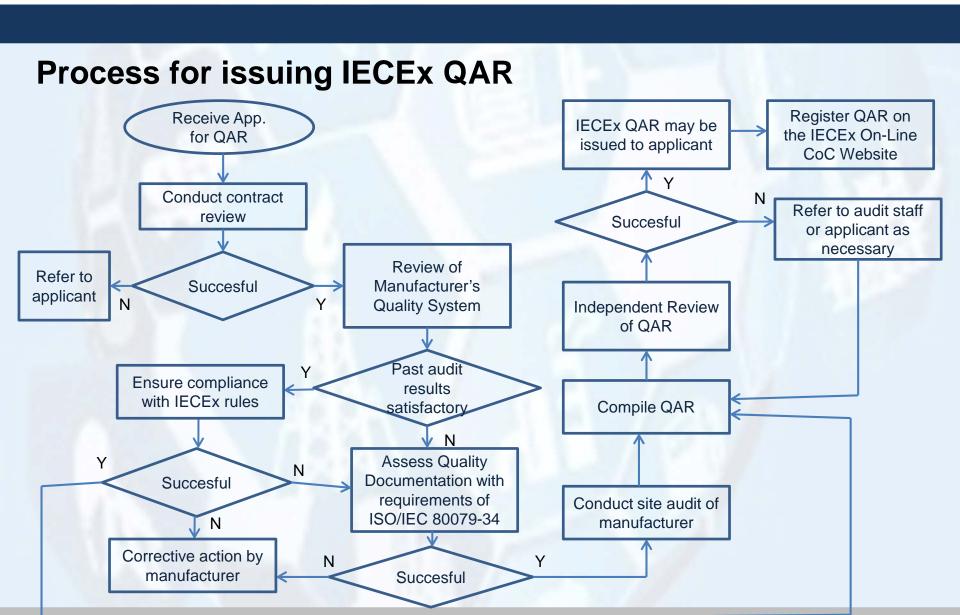
Process for issuing IECEx Test Report

















What is the result of these processes?

Three documents are issued:

- IECEx Test Report (ExTR)
- IECEx Quality Assessment Report (QAR)
- IECEx Certificate of Conformity (CoC)

- ExTR and QAR are issued to applicant and registered on IECEx On-line website
- IECEx Certificate of Conformity (CoC) is issued via IECEx On-line Certificate System (only CoC with status "Current" is valid)







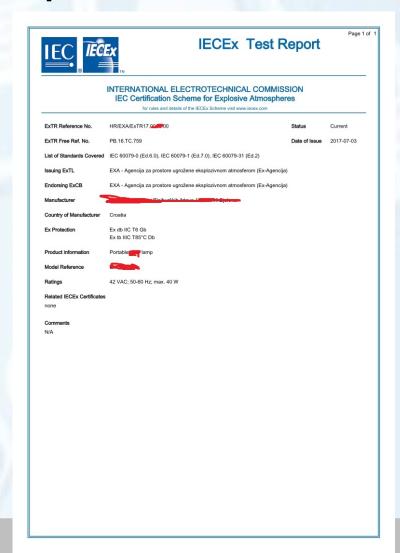
IECEx Test Report (ExTR) - example

Ex-Agencija

ExTR Reference Number: HR/EXA/ExTRgg.xxxx/yy
Assesment report Number: EXA ggCRxxxx

IEC IECEX	IECEX TEST REPORT C	OVER	
ExTR Reference Number	HR/EXA/ExTRgg.xxxx/yy		
ExTR Free Reference Number:	PB.gg.Tx.nnnn		
Compiled by + signature (ExTL):	(enter typed name here)	(enter signature here)	
Reviewed by + signature (ExTL):	(enter typed name here)	(enter signature here)	
Approved by + signature (ExCB):	(enter typed name here)	(enter signature here)	
Date of issue			
Ex Testing Laboratory (ExTL):	Ex-Agencija		
Address	Industrijska 25; 10431 Sveta Nedelja - Croatia		
Ex Certification Body (ExCB):	Ex-Agencija		
Address	Industrijska 25; 10431 Sveta Nedelja - Croatia		
Applicant's name	Manufacturer xxx		
Address	Xxx, zzzz,		
Standards associated with this	IEC 60079-0:2011, 6 th edition; IEC 60079-1:2007, 6 th edition;		
ExTR package	IEC 60079-7:2006, 4 th edition; IEC 60079-31:2008, 1 st edition		
Clauses considered	(All clauses considered)		
Related Amendments, Corrigenda or ISHs	IEC 60079-0:2011, /ISH1:2013; /ISH2:2014/ /COR1:2012/ COR2:2013		
Test item description	Three-phase and single phase r mains or inverter	notors, brake motors supplied by	
Model/type reference	XXX		
Code (e.g. Ex _ II_ T_)	Ex d IIC/IIB T6T3 Gb or Ex de IIC/IIB T6T3 Gb and/or Ex tb/n IIC/IIIB T85°CT150°C Db Ex d I Mb or Ex d e I Mb		
Rating	xx kW, zz V		

ExTR Package Contents		
Assembled ExTR documents and Additional reference material:		
IECEx Test Report Cover		
IECEx Test Report: IEC 60079-0, Edition 6		
IECEx Test Report: IEC 60079-1, Edition 6		
IECEx Test Report : IEC 60079-7, Edition 4		
IECEx Test Report Addendum: IEC 60079, Edition		
IECEx Test Report of National Differences: IEC 60079, Edition		
IECEx Test Report of National Differences: IEC 60079, Edition		

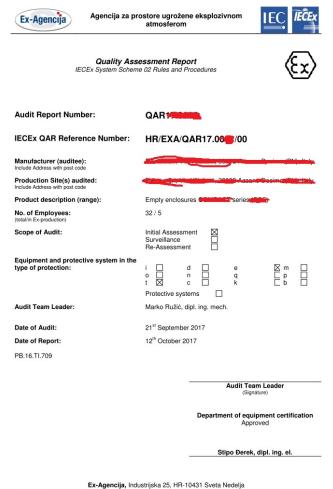








IECEx Quality Assessment Report (QAR)





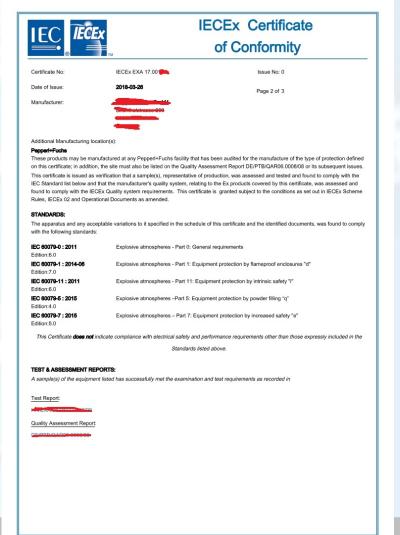






IECEx Certificate of Conformity (CoC)











IECEx Certificate of Conformity (Unit Verification)











- IECEX Certificate recognized in 33 countries
- The biggest countries as China, USA, Russia, Brasil recognize IECEx certification scheme
- Confidence by various certification, e.g. IECEx, ATEX, CUTR, UL&FM, INMETRO...







IECEX is an important tool with value:

- High confidence in meeting international standards
- Quick access to national certification within IECEx member countries
- Continuous improvement by IECEx audit







Certification

- -Advanced model based on ISO type 5
- Transparent on-line certification base

Market access

Reduce time to worldwide market

Production

Ensure that design meets international standard Ensure controlled production process

Reputation

Recognition by end user

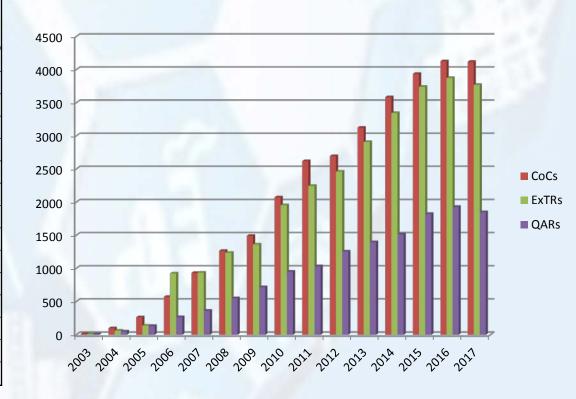






Evident increase in the number of IECEx certification over the years

Issued in the Year of	CoCs	ExTRs	QARs
2003	13	10	10
2004	98	62	50
2005	263	137	133
2006	570	923	265
2007	932	935	363
2008	1265	1235	550
2009	1492	1361	716
2010	2072	1953	951
2011	2619	2245	1033
2012	2695	2461	1255
2013	3124	2908	1396
2014	3584	3344	1514
2015	3936	3740	1822
2016	4128	3874	1928
2017	4119	3769	1849





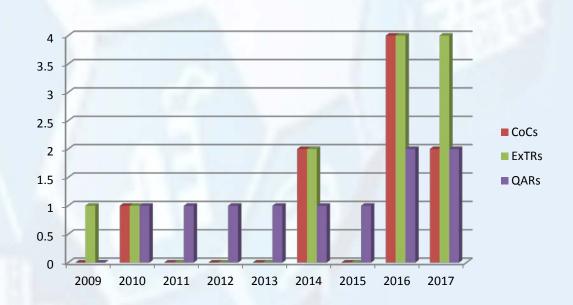




The number of IECEx certification over the years in Croatia and in neighborhood

IECEx certification in Croatia

Issued in the Year of	CoCs	ExTRs	QARs
2009	0	1	0
2010	1	1	1
2011	0	0	1
2012	0	0	1
2013	0	0	1
2014	2	2	1
2015	0	0	1
2016	4	4	2
2017	2	4	2





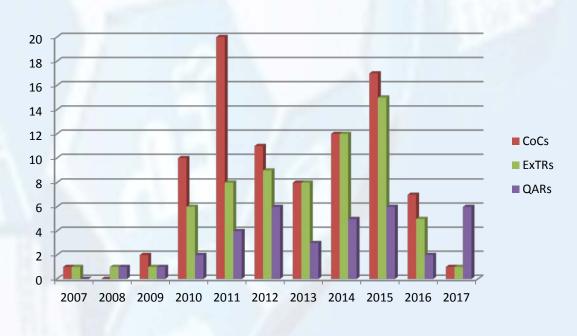




The number of IECEx certification over the years in Croatia and in neighborhood

IECEx certification in Slovenia

Issued in the Year of	CoCs	ExTRs	QARs
2007	1	1	0
2008	0	1	1
2009	2	1	1
2010	10	6	2
2011	20	8	4
2012	11	9	6
2013	8	8	3
2014	12	12	5
2015	17	15	6
2016	7	5	2
2017	1	1	6





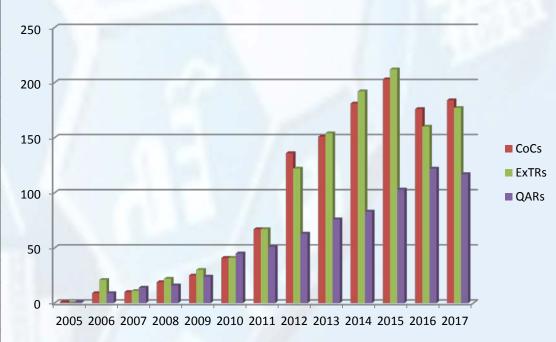




The number of IECEx certification over the years in Croatia and in neighborhood

IECEx certification in Italy

Issued in the Year of	CoCs	ExTRs	QARs
2005	1	0	1
2006	9	21	9
2007	10	11	14
2008	19	22	16
2009	25	30	24
2010	41	41	45
2011	67	67	51
2012	136	122	63
2013	151	154	76
2014	181	192	83
2015	203	212	103
2016	176	160	122
2017	184	177	117









There are not many issued IECEx Certificates for manufacturers in Croatia

What is the reason?

- The value of IECEx certification is not yet recognized in Croatia
- There are not enough large manufacturers international players

What can we do?

- Promote IECEx System
- Explain procedures
- Explain value of an IECEx Certificate







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Thank you

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