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Type 5 Certifications:

What are they and how do you use them for compliance?



CERTIFIED

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Introduction

As manufacturers try to access international markets with their products they are faced with various national and regional conformity requirements - depending on their product type. Sometimes a full product certification is required for a specific market and sometimes data is simply needed to support a Declaration of Conformity – as with CE Marking for the EU. Typically armed with national certifications, type testing reports or CB test reports manufacturers work towards achieving the appropriate territorial compliance a bit at a time, grouping countries with identical or similar requirements together and dealing with national deviations as they come up.

This paper will look at what a Type 5 certification scheme is, it will highlight some of the type 5 schemes available and it will give an overview of how these can be used in your compliance activities to support your market access.

Background

The International Organisation for Standardisation (ISO) and the International Electrotechnical Committee (IEC) have set out a number of different routes to conformity assessment in their document ISO/IEC Guide 67.

Paragraph 6.2 of this document outlines the different levels of conformity assessment that can be applied to a product:

Elements of Product Certification System	Product Certification Systems						
	1a	1b	2	3	4	5	6
1) Selection (sampling) as applicable	X	X	X	X	X	X	
2) Determination of Characteristics as applicable by testing (ISO/IEC 17025) inspection (ISO/IEC 17020) design appraisal assessment of services	X	X	X	X	X	X	X
3) Review (evaluation)	X	X	X	X	X	X	X
4) Decision on Certification <i>Granting, maintaining, extending, suspending, withdrawing certification</i>	X	X	X	X	X	X	X
5) Licensing (attestation) <i>Granting, maintaining, extending, suspending, withdrawing the right to use certificates or marks</i>		X	X	X	X	X	X
6) Surveillance, as applicable							
a) testing or inspection of samples from the open market			X		X	X	
b) testing or inspection of samples from the factory				X	X	X	
c) quality system audits combined with random tests or inspections					X	X	X
d) assessment of the production process or service							

The lowest system or type of conformity assessment (1) is essentially based around a self declaration of compliance. As the type numbers get higher so too does the complexity of the conformity assessment process and arguably the higher the number the more robust the process is.

How are Type 5 Certification Bodies Accredited?

To offer a Type 5 certification a test and Certification Body must demonstrate their technical competence, alongside their compliance with a document called 'Guide for the accreditation of bodies operating certification of products EN 45011:1998' (ISO 65) – a Standard that governs the processes and procedures of the Certification Bodies themselves and their schemes. (This Standard may ultimately be replaced with the proposed IEC 17026 which the IEC is currently discussing).

What constitutes a Type 5 Certification Scheme?

A Type 5 certification scheme requires the involvement of an accredited independent third party expert body in the product assessment that will:

- 1) Undertake product sampling
- 2) Determination of Characteristics
 - Testing (ISO/IEC 17025) (To harmonised Standards)
 - Inspection (ISO/IEC 17020)
 - Design appraisal (document and physical review of product)
 - Assessment of services
- 3) Evaluation (report review)
- 4) Decision on Certification
- 5) Licensing (to apply certification marks to the products)
- 6) Ongoing surveillance
 - Via testing or inspection of samples from the open market
 - Via testing or inspection of samples from the factory
 - Via quality system audits combined with random tests or inspections (usually annually)
 - Assessment of the production process or service (quality management review)

Surveillance is vitally important in this process as this checks that units made after the original assessment are identical in their design and manufacturing specification and that their use of components is the same as the sample originally tested (samples can be taken from the production line at random or purchased from a store). The assessment of these can be done either through retesting where applicable, or review of the product, materials and specifications.

The Benefits of Type 5 Schemes

- Certifications from Type 5 schemes can be used to Support a Declaration of conformity and CE Marking activities in the EU
- Different certifications will meet national, regional or industry compliance requirements depending on the scheme
- Demonstrates your products compliance with product Standards
- Demonstrates you have a recognised quality management system governing your processes
- Demonstrates your commitment to 3rd party review of your products
- Ongoing surveillance of products helps you spot unauthorised component swaps from suppliers
- Consumers, end users, retailers, importers and distributors recognise the value of third party certification and this provides them with product confidence.
- As the assessment process is robust certification can be used as evidence of meeting your duty of care to supply safe good if you are challenged with product liability accusations

Who uses one of these schemes?

Manufacturers, importers, retailers and distributors of products, who looking to demonstrate that an independent third party has assessed a product and found it to comply with regulatory requirements.

Type 5 Schemes you may already be aware of

National Certifications

Arguably the most familiar kind of type 5 of certification is a National Certification scheme run by a certification body.

For example – for home electronics the BEAB Approved Mark for the UK, the ETL Mark for North America, the S Mark for Sweden and the GS mark for Germany are all types of National certifications that are 'Type 5'. They all require product testing, factory inspection, quality management review and ongoing product surveillance.



Industry Certification

Not typically country based, an industry certification is usually developed by a sector's stakeholders to ensure a common level of product quality and best practice within an industry.

Examples that you may have come across are the CertAlarm scheme for Life Safety and Security products and the ENEC scheme for Home Electricals and Appliances. Both are pan-European schemes and are intended to supersede national marks for the products that they apply to. This helps to facilitate free trade of products within the EU. As EU law doesn't prescribe that one specific certification must be used by all (as CE Marking takes precedence) no EU country can block a product on the basis of its certification as long as CE Marking conditions have been met and local deviations have been taken into consideration. Likewise EU countries can't legally force manufacturers to take their national certifications in order to gain market access.

CertAlarm is a voluntary certification mark created by a group of leading sector manufacturers and certification bodies and it covers



- Power supply equipment
- Control and indicating equipment
- Fire alarm devices – Sounders
- Heat detectors - point detectors
- Smoke detectors-point detectors using scattered light
- Flame detectors - point detectors
- PIR Detectors
- Intruder & hold up alarms
- Smoke detectors - line detectors using an optical beam
- Voice alarm control and indicating equipment

ENEC (European Norms Electrical Certification) - is a voluntary certification mark under CENELEC for electrical products in Europe and covers:



- Luminaires and associated components
- Household appliances
- Consumer electronics
- IT equipment
- Safety transformers
- Couplers, connecting devices
- Controls, switches
- Capacitors, filters

Standards Led Certification

The International Electrotechnical Committee (IEC) is a global Standards making body, who's Standards are used and accepted in over 50 countries world wide. Their Standards are created by committees of industry stakeholders and certification experts and as such carry considerable weight in the demonstration of product compliance.

The IECEx scheme is a certification scheme for products designed for operation in a potentially explosive environment or 'hazardous areas'. As various regions have a mandatory requirement for the involvement of a third-party assessment for these types of high-risk products, and the IEC have the credibility as an international Standards body, the IECEx scheme is used by thousands of manufactures world wide to show their product compliance.



The IECEx scheme is intended to reduce the compliance burden of manufacturers of products for potentially explosive environments – so they don't have to have their product re-tested for each of their target markets.

The new IECEE CB Full Certification Scheme (FCS) is similar – but with currently a limited scope of products covered and only 16 countries participating. The ultimate goal of providing Certification (not just test reports) that is valid in over 50 countries and effectively superseding National certifications is clear, but the scheme is still in its infancy and is yet to be adopted by many IEC member nations and certification bodies.



How are certifications used in compliance?

- A certification can be used in your CE Marking technical file to demonstrate your product's compliance
- They can be used in your applications for other Marks
- Test reports and certificates can be shown to product buyers and distributors as evidence of your compliance
- Can be included in the import/export paperwork for port authority review
- Product marking is used to indicate to consumers that a product has been 3rd party tested.
- Test reports and certificates can be used as the basis of a defense if facing accusations of product liability
- They can also be used to indicate to government authorities that a product is compliant with national rules.
- They can be used within an industry sector to meet trade association product requirements.

Conclusions

Manufacturers seeking to access new markets should not just go straight for national certification. If an industry specific Type 5 certification exists they should consider this in addition – as it may provide them with wider market access than just a regular national certification and better fit their needs.

It should not be seen as 'certification light' as it is a robust system of assessment that combines factory inspection, quality management review, product testing and ongoing surveillance in one package to demonstrate ongoing compliance to give your customers, importers and distributors peace of mind that a product is as safe as it can be.

It is in contravention of EU law for individual countries in Europe to insist on specific certifications on specific products, so do not be pushed down a path that may not be right for your needs.

If you are a manufacturer seeking international market access then the IECEE CB FCS programme maybe suitable for you (make contact with your chosen test and certification partner to find out more) – but as this is still evolving and may not fit your needs, it may be an alternative compliance solution for a product generation or two down the line.

Whatever route you are considering for your compliance, seek advice from your partner testing and certification body before you start your compliance programme.

How Intertek can help

We are UKAS accredited to EN 45011:1998 (ISO/IEC Guide 65:1996) to provide product conformity certification.

As well as offering its own proprietary safety certification marks such as the BEAB Approved Mark and the ETL Mark, The S Mark and the GS Mark, Intertek offers the CertAlarm Mark, the ENEC Mark and the Tick Scheme Mark.

Whether you're seeking full certification or some preliminary testing for R & D purposes we can help.

Contact us today on info.uk@intertek.com or call us on +44 (0) 1372370900 or visit our website for more information:

- <http://www.intertek.com/marks/beab/>
- <http://www.intertek.com/marks/etl/>
- <http://www.intertek.com/marks/s/>
- <http://www.intertek.com/marks/gs/>
- <http://www.intertek.com/marks/enec/>

For more information on specific testing and certification information, please contact Intertek at 1-800-WORLTLAB, email icenter@intertek.com, or visit our website at www.intertek.com.

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