

Confused by the ATEX Directives?



Following the introduction of ATEX Directive 2014/34/EU, and the subsequent replacement of ATEX 95 equipment directive 94/9/EC, suppliers of components for industrial systems frequently get telephone calls from customers who are having difficulty interpreting the complex rules surrounding the stringent requirements for the electrical and mechanical components of instruments used in hazardous areas.



This is not particularly surprising, since the ATEX Directives could be described, in a context less sensitive about the use of language, as a minefield.

The essential role of ATEX

A potentially explosive atmosphere exists when a mixture of air gases, vapours, mists, or dusts combine in a way that can ignite under certain operating conditions. If this occurs, the harm caused to those in the

vicinity and the damage to equipment could be severe. ATEX regulations are designed to prevent this.

The ATEX Directive 2014/34/EU covers all equipment and protective systems intended for use in potentially explosive atmospheres. The directive defines the essential health and safety requirements and conformity assessment procedures, to be applied before products are placed on the EU market.

Previously, where equipment that introduced energy into a hazardous area was used, those responsible would have sought to comply with the ATEX Directive 94/9/EC. This, however, was superseded by the more comprehensive and straightforward directive 2014/34/EU as of April 2016.

ATEX Directive 2014/34/EU

An important point to note about the new ATEX Directive 2014/34/EU is that it still includes the vast majority of the rules and regulations set out in the previous directive, 94/9/EC. The new Directive is the result of the alignment to the reference provisions of the New Legislative Framework, so there is no change in scope compared with the previous version. There are, however, a number of updates to be aware of.

For starters, all electrical equipment used in potential explosive environments that were manufactured after April 2016 must now be ATEX-approved. Those products placed on the market prior to this date will not have to be reassessed.

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Secondly, Conformity Assessment procedures for Components in 2014/34/EU differ slightly compared with the previous Directive. Previously, manufacturers or their authorised agent had to issue a certificate explaining the conformity of the components. This is no longer the case. 2014/34/EU places this responsibility solely with manufacturers.



Additionally, articles 31, 32 and 33 in 2014/34/EU outline the requirement for the sharing of data – such as test reports and certificates – and experience between Notified Bodies. This is facilitated by the Commission and enables authorities to monitor both negative and positive aspects of the conformity assessment process.

Previous versions of the directives assigned specific obligations to manufacturers and their authorised representatives. 2014/34/EU, however, extends these obligations to importers and distributors.

The table below shows which tasks are assumed to be the responsibility of each party.

Task	Manufacturer	Associated Rep	Importer	Distributor
Ensure products carry identifying data such as batch details or serial number	✓			
Design and build in accordance with ANNEX III	✓			
Draw-up technical documentation, Declaration of Conformity & apply CE Marking	✓			
Ensure series production should remain in conformity	✓			
Co-operate with national authorities and detail their suppliers or customers	✓	✓	✓	✓
Include their name and address and a clear point of company contact	✓		✓	
Ensure products feature all markings	✓			
Place only compliant products on the market			✓	
Ensure that products undergo conformity assessment and have appropriate documentation			✓	✓
Ensure instructions and safety data is included	✓		✓	
Keep documentation for 10 years after the product is placed on the market	✓	✓	✓	
Ensure a declaration accompanies all products	✓			
Carry out sample testing to protect safety of users	✓		✓	
Ensure transport or storage does not compromise compliance			✓	✓
Ensure products carry all appropriate symbols including: 	✓			
Take corrective actions immediately after a product is believed not to comply and notify national authorities	✓		✓	✓

Directive 2014/34/EU is complemented by the ATEX ‘Workplace’ Directive 1999/92/EC. This Directive sets out the responsibilities of employers, by dealing with the minimum requirements for improving the level of health and safety protection of workers potentially at risk from explosive atmospheres.

Who implements ATEX Directives?

Each national authority within the EU is responsible for implementing the ATEX Directive through their own legislation. As part of this, those same authorities are responsible for overseeing enforcement of the directives and managing the bodies responsible for investigating and monitoring non-compliance.

Where non-compliance is proven, there is technically no limit to the penalty manufacturers can be handed down. This means manufacturers might face a fine, trading license suspension or cancellation, or even a custodial sentence.

Member States need only to inform the European Commission what their actions are and if no complaints are made by either another Member State or the Commission itself, their actions will be considered justified. The Commission will then share data on product risks with other Member States to enable them to take appropriate action too.



ATEX-approved products

Virtually any class of switch or sensor used in fluid processing - whether gases or liquids - in the process industries, in mining, in the manufacture of powders, or in the industrial woodworking and furniture industries, will be needed by some or all industries in an ATEX-approved form.

Explosions can potentially occur where wood dust is extracted from furniture factories, where sugar is pneumatically conveyed, cocoa powder is manufactured or wheat flour is packed. ATEX is not only about petrochemical and gas processing, and it's important to recognise that all sorts of industries need ATEX products.

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For example, in the area of mechanical engineering, manufacturers need couplings, clutches, brakes and friction devices which cannot create sparks so cannot cause explosions. In mining, extraction machinery has to be incapable of causing explosions, as does transportation equipment, both for workers and mined ore.

To meet the growing need for ATEX-approved equipment, manufacturers have developed a comprehensive range of products that comply with the ATEX Directives and therefore reduce the potential risk of incident.

Where can you get further advice?

No single organisation can advise upon and supply every kind of equipment that is required in ATEX form. However, internet research can provide a range of sources, whatever your needs. Whoever you approach, be sure that you are being advised by qualified engineers who are accustomed to explaining the ATEX requirements and identifying products that meet both the ATEX rules and your particular needs. You need engineers, not just salesmen, to provide workable solutions.

