

TECHNICAL ARTICLE

Machinery safety questions and answers

Martin Palmer, the Training Manager at Pilz Automation Technology, addresses two of the most frequently asked questions relating to machinery safety regulations and standards.



Pilz Automation Technology has run education and training events for over ten years, with the most popular courses consistently being those relating to machinery safety regulations and standards. Attendees find the question-and-answer sessions extremely valuable, with the experts from Pilz fielding a wide variety of questions. However, there are currently two questions that are asked more than any others, so this present article provides answers to these:

- What are harmonised standards?
- What are the key changes in the new Machinery Directive?

What are harmonised standards?

A standard is said to be 'harmonised' when it has been published in the Official Journal (OJ) of the European Commission. For the current Machinery Directive (98/37/EC) there is a list of harmonised standards available on the European Commission website.

By conforming with a harmonised standard it can be assumed that the requirements of the relevant Directive have been met (this is referred to as the 'presumption of conformity'). In other words, harmonised standards substantiate the abstract requirements of the directives.

Note that the inclusion of 'EN' within a standard's number does not indicate that the standard is harmonised. It should also be noted that the standards currently harmonised to Machinery Directive 98/37/EC are being reviewed and amended where necessary so that they can be harmonised to the new Machinery Directive 2006/42/EC.

What are the key changes in the new version of the Machinery Directive?

The new Machinery Directive 2006/42/EC comes into force on 29 December 2009 and there is no transition period to enable users to migrate from the old directive to the new one.

There are numerous changes, which are explained in a free Guide to the New Machinery Directive sponsored by Pilz, but the key points can be summarised as follows:

- The relationship between the Machinery Directive and other directives (specifically the Low Voltage Directive and the Lifts Directive) has been clarified.
- The directive's scope now includes partly completed machinery and the directive is far clearer about the requirements. Associated documentation must indicate which of the directive's requirements have been met, and the scope of delivery for partly completed machinery must include a 'declaration of incorporation' and an installation manual in the language of the country of installation.
- The essential health and safety requirements have been adapted to take account of technical progress.
- There is now a choice of conformity assessment procedures for particularly hazardous machinery (ie those listed in Annex IV of the Machinery Directive). If machinery is designed in accordance with the relevant harmonised standards, the new directive gives manufactures the option to self-certify machinery, thereby avoiding the requirement to deposit the technical file with a Notified Body. Alternative options for 'Annex IV' machinery are for manufactures to request EC type-examination by a Notified Body or have a Notified Body approve a full quality assurance system.
- Safety components must be CE marked.

Pilz consultants and engineers can assist customers with CE marking of machinery in accordance with the new directive if required.

Please contact Pilz to request more information about consulting and engineering services by emailing consulting@pilz.co.uk or telephone 01536 460766.

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Note to editors

Pilz Automation Technology develops, manufactures and supplies process and automation control products for use wherever there is a requirement to ensure the safety of plant, personnel or the environment. Included in the range are: safety relays; configurable safety controllers; programmable safety systems (safety PLCs) for use with or without the SafetyBUS p safe, open industrial fieldbus network; mechanically actuated and non-contact guard switches; safety light curtains; 2D and 3D vision-based safety sensors; emergency stop switches; conventional and touchscreen operator interfaces; plus control and monitoring relays for non-safety applications.

In addition, Pilz provides safety-related services, such as training, engineering, consultancy and competence management. For 20 years Pilz has taken a leading role in educating the market with regard to safety legislation. This has been through seminars on legislation, software packages that assist with standards compliance and product selection, and publications. Pilz has produced six editions of the *Guide to Machinery Safety*, a *Guide to Programmable Safety Systems*, and publishes a free monthly email newsletter

Pilz Automation Technology is a wholly owned subsidiary of Pilz GmbH & Co KG, a family-owned German company with global operations. Since its foundation in 1948, Pilz has remained at the forefront of safety technology, launching the first safety relay the first programmable safety system, the first safe, open fieldbus system (SafetyBUS p), the first solid-state safety 'relay', the first software-configurable modular safety controller, and the first safe camera system for monitoring three-dimensional zones. Future developments will see safety technology being integrated more closely with standard control, such as in servo drives with safety functionality.

Editors should contact Pilz if they would prefer to receive future press releases electronically or by post.

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