

**Functional Safety Engineering Services**

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[What is IEC 61508?](#)

**IEC 61508 is the international standard for electrical, electronic and programmable electronic safety related systems.**

It sets out the requirements for ensuring that systems are designed, implemented, operated and maintained to provide the required safety integrity level (SIL). Four SILs are defined according to the risks involved in the system application, with SIL4 being used to protect against the highest risks. The standard specifies a process that can be followed by all links in the supply chain so that information about the system can be communicated using common terminology and system parameters.

The standard is in eight parts:

- IEC 61508-0, Functional safety and IEC 61508
- IEC 61508-1, General requirements
- IEC 61508-2, Requirements for E/E/PE safety-related systems
- IEC 61508-3, Software requirements
- IEC 61508-4, Definitions and abbreviations
- IEC 61508-5, Examples and methods for the determination of safety integrity levels
- IEC 61508-6, Guidelines on the application of IEC 61508-2 and IEC 61508-3
- IEC 61508-7, Overview of techniques and measures

IEC 61508 has been adopted in the UK as BS EN 61508, with the "EN" indicating adoption also by the European electrotechnical standardisation organisation

CENELEC. Other standards are being produced for the application of the 61508 approach to particular sectors.

Sector specific standards related to IEC 61508 include:

- IEC 61511 Process industries
- IEC 61513 Nuclear power plants
- IEC 62061 Machinery sector
- IEC 61800-5-2 Power drive systems.

Reference: <http://www.61508.org/knowledge/what-is-iec-61508.php>

Note the above has been extracted from 61508.org website for intention of providing information only.