

Australian Standard™

**Functional safety—Safety instrumented  
systems for the process industry sector**

**Part 1: Framework, definitions,  
systems, hardware and software  
requirements**

This Australian Standard was prepared by Committee IT-006, Information Technology for Industrial Automation and Integration. It was approved on behalf of the Council of Standards Australia on 5 March 2004 and published on 10 May 2004.

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## PREFACE

This Standard was prepared by the Standards Australia Committee IT-006, Information Technology for Industrial Automation and Integration.

This Standard is identical with, and has been reproduced from, IEC 61511-1:2003, *Functional safety—Safety instrumented systems for the process industry sector—Part 1: Framework, definitions, systems, hardware and software requirements*.

The objective of this Standard is to provide requirements for the specification, design, installation, operation and maintenance of a safety instrumented system, so that it can be confidently entrusted to place and/or maintain the process in a safe state.

This Standard is Part 1 of AS IEC 61511, *Functional safety—Safety instrumented systems for the process industry sector*, which is published in parts as follows:

Part 1: Framework, definitions, system, hardware and software requirements (this Standard)

Part 2: Guidelines for the application of AS IEC 61511-1

Part 3: Guidance for the determination of the required safety integrity levels

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