

AS 61508.4—1999
IEC 61508-4:1998

Australian Standard™

**Functional safety of electrical/
electronic/programmable electronic
safety-related systems**

Part 4: Definitions and abbreviations

This Australian Standard was prepared by Committee IT/6, Information Technology for Industrial Automation and Integration. It was approved on behalf of the Council of Standards Australia on 14 July 1999 and published on 5 August 1999.

The following interests are represented on Committee IT/6:

Australian Association of Consulting Engineers
Australian Electrical and Electronic Manufacturers Association
Australian Information Industry Association
CSIRO Centre for Planning and Design
CSIRO Manufacturing Science and Technology
Department of Defence (Australia)
Department of Industry Science and Resources (Commonwealth)
Federal Chamber of Automotive Industries
Institution of Engineers Australia
Monash University
New South Wales TAFE Commission
RMIT University
The Royal Australian Institute of Architects
University of Melbourne

Review of Australian Standards. To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

AS 61508.4—1999

Australian Standard™

**Functional safety of electrical/
electronic/programmable electronic
safety-related systems**

Part 4: Definitions and abbreviations

First published as AS 61508.4—1999.

PREFACE

This Standard was prepared by the Standards Australia Committee IT/6, Information Technology for Industrial Automation and Integration. This Standard is identical with and has been reproduced from IEC 61508-4:1998, *Functional safety of electrical/electronic/programmable electronic safety-related systems*, Part 4: *Definitions and abbreviations*.

The objective of this Standard is to provide designers of electrical/electronic/programmable electronic devices used in safety related applications with the definitions and abbreviations used in other Parts of this series of Standards.

A reference to an International Standard identified in the normative references clause (Clause 2) by strikethrough (~~example~~) is replaced by a reference to the Australian Standards listed immediately thereafter and identified by shading (example). Where the struck-through referenced document and the referenced Australian Standard are identical, this is indicated in parenthesis after the title of the latter.

The term 'informative' has been used in this Standard to define the application of the annex to which it applies. An 'informative' annex is only for information and guidance.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text 'this part of IEC 61508' should read 'this Australian Standard', and 'this International Standard' should read 'this series of Standards'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

© Copyright – STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

CONTENTS

Page

1	Scope	1
2	Normative references	3
3	Definitions and abbreviations	4
3.1	Safety terms	4
3.2	Equipment and devices	5
3.3	Systems: general aspects	7
3.4	Systems: safety-related aspects	9
3.5	Safety functions and safety integrity	10
3.6	Fault, failure and error	13
3.7	Lifecycle activities	15
3.8	Confirmation of safety measures	16
	Annex A (informative) Bibliography	19
	Index	20
Figures		
1	Overall framework of this standard	2
2	Programmable electronic system (PES): structure and terminology	8
3	Electrical/electronic/programmable electronic system (E/E/PES): structure and terminology	8
4	Failure model	14
Table		
1	Abbreviations used in this standard	4

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-