



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

## **Part 1: Framework, definitions, system, hardware and application programming requirements**



## AS IEC 61511.1:2018

This Australian Standard® was prepared by IT-006, Industrial Process Measurement, Control and Automation. It was approved on behalf of the Council of Standards Australia on 26 September 2018.

This Standard was published on 30 October 2018.

The following are represented on Committee IT-006:

- Australian Computer Society
- Australian Industry Group
- Australian Petroleum Production and Exploration Association
- Consult Australia
- Institute of Instrumentation, Control and Automation Australia
- Institution of Chemical Engineers
- ISACA
- Process Control Society, Engineers Australia
- Workplace Health and Safety Queensland

This Standard was issued in draft form for comment as DR AS IEC 61511.1:2018.

### **Keeping Standards up-to-date**

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

[www.standards.org.au](http://www.standards.org.au)

[www.saiglobal.com](http://www.saiglobal.com) (sales and distribution)



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

## **Part 1: Framework, definitions, system, hardware and application programming requirements**

Originated as AS IEC 61511.1—2004.  
Second edition 2018.

### **COPYRIGHT**

© IEC 2018 — All rights reserved  
© Standards Australia Limited 2018

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth).

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia.

## Preface

This Standard was prepared by the Standards Australia Committee IT-006, Industrial Process Measurement, Control and Automation, to supersede AS IEC 61511.1—2004.

The objective of this Standard is to specify requirements for the specification, design, installation, operation and maintenance of a safety instrumented system (SIS), so that it can be used to achieve or maintain a safe state of the process. AS IEC 61511.1 has been developed as a process sector implementation of the AS IEC 61508 series.

This Standard is identical with, and has been reproduced from, IEC 61511-1:2016, *Functional safety—Safety instrumented systems for the process industry sector—Part 1: Framework, definitions, system, hardware and application programming requirements* and its Amendment No. 1 (2017), which has been added at the end of the source text.

As this document has been reproduced from an International Standard, the following applies:

(a) In the source text ‘this part of IEC 61511’ should read ‘this part of AS IEC 61511’ and ‘IEC 61511-1’ should read ‘this Australian Standard’.

(b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms ‘normative’ and ‘informative’ are used in Standards to define the application of the appendices or annexes to which they apply. A ‘normative’ appendix or annex is an integral part of a Standard, whereas an ‘informative’ appendix or annex is only for information and guidance.

## NOTES

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
-