



NSAI
Standards

Irish Standard
I.S. EN 3197:2010

Aerospace series - Design and installation of aircraft electrical and optical interconnection systems

I.S. EN 3197:2010

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:

This document is based on:
EN 3197:2010

Published:
20 December, 2010

This document was published under the authority of the NSAI and comes into effect on:
20 December, 2010

ICS number:
49.060
49.090

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

ICS 49.060; 49.090

English Version

Aerospace series - Design and installation of aircraft electrical and optical interconnection systems

Série aérospatiale - Conception et installation des organes
de raccordements électriques et à fibres optiques sur
avions

Luft- und Raumfahrt - Konstruktion und Installation
elektrischer und optischer Verkabelung in Luftfahrzeugen

This European Standard was approved by CEN on 30 July 2010.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
ORGANISATION OF THIS STANDARD (Detailed organisation may be found in Annex A).....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Limitations	6
5 General requirements.....	6
6 Selection of EWIS and OFIS Components	19
7 EWIS Components Identification	45
8 Separation and principles to apply	48
9 Installation and manufacturing principles	60
10 Modification and repairs by STC applicants	84
11 EWIS and OFIS Safety	86
Annex A (informative) EN 3197 detailed content	87
Annex B (normative) Main normative references and ASD-STAN Technical Reports per family of products	95
B.1 Quality and General standards.....	95
B.2 Wires and cables.....	96
B.3 Optical fibre cables, connectors and contacts.....	98
B.4 Connectors and contacts.....	99
B.5 Protective devices	102
B.6 Switching devices.....	103
B.7 Terminal junctions	103
B.8 Terminal lugs and in-line splice	104
B.9 Ties.....	104
B.10 Solder sleeves.....	104
B.11 Bonding leads	105
B.12 Clamps	105
B.13 Protective parts.....	105
B.14 Identification parts.....	106
B.15 Installation Components.....	106
B.16 Lamps	107
Annex C (informative) Differences of electrochemical potentials between some conductive materials (in mV).....	108

Foreword

This document (EN 3197:2010) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2011, and conflicting national standards shall be withdrawn at the latest by June 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

ORGANISATION OF THIS STANDARD
(Detailed organisation may be found in Annex A)

1 Scope **page 5**

Description of the aim of this document.

2 Normative references **page 5**

List of Normative references used.

3 Terms and definitions **page 6**

List of particular definitions or mentions of particular applicable documents.

4 Limitations **page 6**

Applicability of this document.

5 General requirements **page 6**

General and important considerations, plus specific requirements linked to particular areas of use.

6 Selection of EWIS and OFIS Components **page 19**

Guideline for the choice of necessary components.

7 EWIS and OFIS Components Identification **page 45**

Description of necessary identifications for components, bundles, equipments and repairs.

8 Separation and principles to apply **page 48**

Rules to satisfy for a good integration and behaviour of systems.

9 Installation and manufacturing principles **page 60**

Description of installation and manufacturing principles.

10 Modification and repairs by STC applicants **page 84**

11 EWIS and OFIS Safety **page 86**

Safety analysis.

NOTE Inside this standard, texts in *italic* come from official texts and cannot be modified without verification.

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](#)
-