



National Standards Authority of Ireland
Údarás um Chaighdeáin Náisiúnta na hÉireann

IRISH STANDARD

I.S. EN 61131-2:2007

ICS 35.240.50
25.040.40

**PROGRAMMABLE CONTROLLERS -- PART
2: EQUIPMENT REQUIREMENTS AND
TESTS (IEC 61131-2:2007 (EQV))**

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*This Irish Standard was
published under the authority
of the National Standards
Authority of Ireland and
comes into effect on:
19 March 2008*

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I.S. EN 61131-2:2007

EUROPEAN STANDARD

EN 61131-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2007

ICS 35.240.50; 25.040.40

Supersedes EN 61131-2:2003

English version

**Programmable controllers -
Part 2: Equipment requirements and tests
(IEC 61131-2:2007)**

Automates programmables -
Partie 2: Spécifications
et essais des équipements
(CEI 61131-2:2007)

Speicherprogrammierbare Steuerungen -
Teil 2: Betriebsmittelanforderungen
und Prüfungen
(IEC 61131-2:2007)

This European Standard was approved by CENELEC on 2007-08-01. CENELEC 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 Central Secretariat or to any CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Foreword

The text of document 65B/623/FDIS, future edition 3 of IEC 61131-2, prepared by SC 65B, Devices & process analysis, of IEC TC 65, Industrial-process measurement, control and automation, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61131-2 on 2007-08-01.

This European Standard supersedes EN 61131-2:2003.

EN 61131-2:2007 includes the following significant technical changes with respect to EN 61131-2:2003.

- a) DC power port requirements have been moved from Clause 8 to Clause 5.
- b) Correction of the following tests of Clause 6:
 - voltage range test;
 - fast supply voltage variation test;
 - slow supply voltage variation test;
 - gradual shut-down/start-up test.
- c) Change of EMC requirements in Clause 8:
 - requirements for radiofrequency interference in Table 33 changed from 3 V to 10 V;
 - for Zone B equipment;
 - reference to EMC basic standards with the last version;
 - reference to generic standards 61000-6-x;
 - cable length aligned to generic standards.
- d) Correction of the following tests in Clause 9:
 - voltage dips and interruptions – power port type tests and verifications.
- e) New organization of Clause 11:
 - equipment types and protection;
 - open PLC-system equipment;
 - enclosed PLC-system equipment:
 - Class I equipment,
 - Class II equipment,
 - Class III equipment;
 - protection against electric shock;
 - definition of secondary circuits which do not pose a risk of electric shock:
 - Class 2 circuit,
 - limited voltage/current circuit,
 - limited voltage circuit,
 - limited energy circuit ≤ 30 V a.c. or 42,2 V peak,
 - limited impedance circuit;
 - protection against the spread of fire within limited power circuits;
 - protective earthing requirements for enclosed equipment;
 - minor improvements in different subclauses;
 - impulse test only for verification of clearances.

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The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2008-05-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2010-08-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directives EMC (89/336/EEC) and EMC2 (2004/108/EC). See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61131-2:2007 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60112	NOTE	Harmonized as EN 60112:2003 (not modified).
IEC 60445	NOTE	Harmonized as EN 60445:2007 (not modified).
IEC 61140	NOTE	Harmonized as EN 61140:2002 (not modified).
IEC 62079	NOTE	Harmonized as EN 62079:2001 (not modified).

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Annex ZA
(normative)**Normative references to international publications
with their corresponding European publications**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60060-1	1989	High-voltage test techniques -		
+ corr. March	1990	Part 1: General definitions and test	HD 588.1 S1	1991
corr. March	1992	requirements		
IEC 60068-2-1	2007	Environmental testing - Part 2-1: Tests - Test A: Cold	EN 60068-2-1	2007
IEC 60068-2-2	1974	Environmental testing - Part 2: Tests - Tests B: Dry heat	EN 60068-2-2 ¹⁾	1993
IEC 60068-2-6	1995	Environmental testing -		
+ corr. March	1995	Part 2: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	1995
IEC 60068-2-14	1984	Environmental testing - Part 2: Tests - Test N: Change of temperature	EN 60068-2-14 ²⁾	1999
IEC 60068-2-27	1987	Basic environmental testing procedures - Part 2: Tests - Test Ea and guidance: Shock	EN 60068-2-27	1993
IEC 60068-2-30	2005	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	EN 60068-2-30	2005
IEC 60068-2-31	1969	Basic environmental testing procedures - Part 2: Tests - Test Ec: Drop and topple, primarily for equipment-type specimens	EN 60068-2-31 ³⁾	1993
IEC 60068-2-32	1975	Environmental testing - Part 2: Tests -Test Ed: Free fall	EN 60068-2-32 ⁴⁾	1993
IEC 60364-1 (mod)	2005	Low-voltage electrical installations - Part 1: Fundamental principles, assessment of general characteristics, definitions	prHD 60364-1	200X
IEC 60364-4-41 (mod)	2005	Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock	HD 60364-4-41 + corr. July	2007 2007
IEC 60417	Data- base	Graphical symbols for use on equipment	-	-

¹⁾ EN 60068-2-2 includes supplement A:1976 to IEC 60068-2-2.

²⁾ EN 60068-2-14 includes A1:1986 to IEC 60068-2-14.

³⁾ EN 60068-2-31 includes A1:1982 to IEC 60068-2-31.

⁴⁾ EN 60068-2-32 includes A2:1990 to IEC 60068-2-32.

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