

Madalpingelised lülitusaparaadid. Kontrolleri ja aparadi vahelised liidesed. Osa 3: Seadmevõrk

Low-voltage switchgear and controlgear - Controller-device interfaces (CDIs) -- Part 3: DeviceNet

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 62026-3:2009 sisaldab Euroopa standardi EN 62026-3:2009 ingliskeelset teksti.

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English version

**Low-voltage switchgear and controlgear -
Controller-device interfaces (CDIs) -
Part 3: DeviceNet
(IEC 62026-3:2008)**

Appareillage à basse tension -
Interfaces appareil
de commande-appareil (CDI) -
Partie 3: DeviceNet
(CEI 62026-3:2008)

Niederspannungsschaltgeräte -
Steuerung-Geräte-Netzwerke (CDIs) -
Teil 3: DeviceNet
(IEC 62026-3:2008)

This European Standard was approved by CENELEC on 2009-05-01. 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.

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CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 17B/1580/FDIS, future edition 2 of IEC 62026-3, prepared by SC 17B, Low-voltage switchgear and controlgear, of IEC TC 17, Switchgear and controlgear, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62026-3 on 2009-05-01.

This European Standard supersedes EN 50325-2:2000.

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) 2010-02-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2012-05-01

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 Directive EMC (2004/108/EC). See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62026-3:2008 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 61131-3	NOTE Harmonized as EN 61131-3:2003 (not modified).
IEC 61784-1	NOTE Harmonized as EN 61784-1:2008 (not modified).
IEC 61784-5-2	NOTE Harmonized as EN 61784-5-2:2008 (not modified).

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 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
A1	1999		+ corr. May A1	1993 2000
IEC 60947-5-2 (mod)	1997	Low-voltage switchgear and controlgear - Part 5-2: Control circuit devices and switching elements - Proximity switches	EN 60947-5-2 ¹⁾	1998
A1	1999		A1	1999
A2	2003		A2	2004
IEC 61000-4-2	1995	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	EN 61000-4-2 ²⁾	1995
A1	1998		A1	1998
A2	2000		A2	2001
IEC 61000-4-3	2006	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3 + IS1	2006 2009
IEC 61000-4-4	2004	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4	2004
IEC 61000-4-5	2005	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	2006
IEC 61000-4-6 + A1 + A2	2003 2004 2006	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	EN 61000-4-6 + corr. August + IS1	2007 2007 2009
IEC 61158	Series	Industrial communication networks - Fieldbus specifications	EN 61158	Series
IEC 61158-4-2	- ³⁾	Industrial communication networks - Fieldbus specifications - Part 4-2: Data-link layer protocol specification - Type 2 elements	EN 61158-4-2	2008 ⁴⁾

¹⁾ EN 60947-5-2:1998 is superseded by EN 60947-5-2:2007, which is based on IEC 60947-5-2:2007.

²⁾ EN 61000-4-2:1995 is superseded by EN 61000-4-2:2009, which is based on IEC 61000-4-2:2008

³⁾ Undated reference.

⁴⁾ Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61158-5-2	- ³⁾	Industrial communication networks - Fieldbus specifications - Part 5-2: Application layer service definition - Type 2 elements	EN 61158-5-2	2008 ⁴⁾
IEC 61158-6-2	- ³⁾	Industrial communication networks - Fieldbus specifications - Part 6-2: Application layer protocol specification - Type 2 elements	EN 61158-6-2	2008 ⁴⁾
IEC 61508	Series	Functional safety of electrical/electronic/programmable electronic safety-related systems	EN 61508	Series
IEC 61784-3-2	- ³⁾	Industrial communication networks - Profiles - Part 3-2: Functional safety fieldbuses - Additional specifications for CPF 2	EN 61784-3-2	2008 ⁴⁾
IEC 62026-1	2007	Low-voltage switchgear and controlgear - Controller-device interfaces (CDIs) - Part 1: General rules	EN 62026-1	2007
CISPR 11 (mod) + A1 (mod) A2	2003 2004 2006	Industrial scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement	EN 55011 A2	2007 2007
ISO/IEC 7498-1	1994	Information technology - Open Systems Interconnection - Basic Reference Model: The Basic Model	-	-
ISO 11898-1	2003	Road vehicles - Controller area network (CAN) - Part 1: Data link layer and physical signalling	-	-
ISO 11898-2	2003	Road vehicles - Controller area network (CAN) - Part 2: High-speed medium access unit	-	-

Annex ZZ (informative)

Coverage of Essential Requirements of EC Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Article 1 of Annex I of the Directive 2004/108/EC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

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INTRODUCTION

DeviceNet™¹⁾ is intended for use in, but is not limited to, industrial automation applications. These applications may include devices such as limit switches, proximity sensors, electro-pneumatic valves, relays, motor starters, operator interface panels, analogue inputs, analogue outputs and controllers.

¹⁾ DeviceNet™ is a trade name of Open DeviceNet Vendor Association, Inc. This information is given for the convenience of users of this International Standard and does not constitute an endorsement by IEC of the trademark holder or any of its products. Compliance to this standard does not require use of the trade name DeviceNet™. Use of the trade name DeviceNet™ requires permission of Open DeviceNet Vendor Association, Inc.

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR – CONTROLLER-DEVICE INTERFACES (CDIs) –

Part 3: DeviceNet

1 Scope

This part of IEC 62026 specifies an interface system between single or multiple controllers, and control circuit devices or switching elements. The interface system uses two twisted shielded conductor pairs within one cable – one of these pairs provides a differential communication medium and the other pair provides power to the devices. This part establishes requirements for the interchangeability of components with such interfaces.

This part of IEC 62026 specifies the following particular requirements for DeviceNet:

- requirements for interfaces between controllers and switching elements;
- normal service conditions for devices;
- constructional and performance requirements;

tests to verify conformance to requirements.

These particular requirements apply in addition to the general requirements of IEC 62026-1.

2 Normative references

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.

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*
Amendment 1 (1999)

IEC 60947-5-2:1997, *Low-voltage switchgear and controlgear – Part 5-2: Control circuit devices and switching elements – Proximity switches*
Amendment 1 (1999)
Amendment 2 (2003)

IEC 61000-4-2:1995, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test*
Amendment 1 (1998)
Amendment 2 (2000)

IEC 61000-4-3:2006, *Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test*

IEC 61000-4-4:2004, *Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test*

IEC 61000-4-5:2005, *Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test*

IEC 61000-4-6:2003, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields*

Amendment 1 (2004)

Amendment 2 (2006)

IEC 61158 (all parts), *Digital data communications for measurement and control – Fieldbus for use in industrial control systems*

IEC 61158-4-2, *Industrial communication networks – Fieldbus specifications – Part 4-2: Data-link layer protocol specification – Type 2 elements*

IEC 61158-5-2, *Industrial communication networks – Fieldbus specifications – Part 5-2: Application layer service definition – Type 2 elements*

IEC 61158-6-2, *Industrial communication networks – Fieldbus specifications – Part 6-2: Application layer protocol specification – Type 2 elements*

IEC 61508 (all parts), *Functional safety of electrical/electronic/programmable electronic safety-related systems*

IEC 61784-3-2, *Industrial communication networks – Profiles – Part 3-2: Functional safety fieldbuses – Additional specifications for CPF 2*

IEC 62026-1:2007, *Low-voltage switchgear and controlgear – Controller-device interfaces (CDIs) – Part 1: General rules*

ISO/IEC 7498-1:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: The Basic Model*

ISO 11898-1:2003, *Road vehicles – Controller area network (CAN) – Part 1: Data link layer and physical signalling*

ISO 11898-2:2003, *Road vehicles – Controller area network (CAN) – Part 2: High-speed medium access unit*

CISPR 11:2003, *Industrial, scientific and medical (ISM) radio-frequency equipment – Electromagnetic disturbance characteristics – Limits and methods of measurement*

Amendment 1 (2004)

Amendment 2 (2006)