



SLOVENSKI STANDARD

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01-september-2008

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SIST EN 61491:2001
SIST EN 61784-1:2004

Industrijska komunikacijska omrežja - Profili - 1. del: Profili procesnih vodil (IEC 61784-1:2007)

Industrial communication networks - Profiles - Part 1: Fieldbus profiles

Industrielle Kommunikationsnetze - Profile - Teil 1: Feldbusprofile

Réseaux de communication industriels - Profils - Partie 1: Profils pour les bus de terrain

Ta slovenski standard je istoveten z: EN 61784-1:2008

ICS:

25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
35.240.50	Uporabniške rešitve IT v industriji	IT applications in industry

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61784-1

June 2008

ICS 35.240.50; 35.100.20

Supersedes EN 61491:1998 (partially) and EN 61784-1:2004

English version

**Industrial communication networks -
Profiles -
Part 1: Fieldbus profiles
(IEC 61784-1:2007)**

Réseaux de communication industriels -
Profils -
Partie 1: Profils pour les bus de terrain
(CEI 61784-1:2007)

Industrielle Kommunikationsnetze -
Profile -
Teil 1: Feldbusprofile
(IEC 61784-1:2007)

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This European Standard was approved by CENELEC on 2008-05-01. 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.

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

Foreword

The text of document 65C/294/FDIS, future edition 2 of IEC 61784-1, prepared by SC 65C, Industrial networks, 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 61784-1 on 2008-05-01.

This European Standard supersedes EN 61784-1:2004 + corrigendum December 2004.

This standard also partially replaces EN 61491:1998 which is at present being revised (to be issued as a Technical Report).

EN 61784-1:2008 includes the following significant technical changes from EN 61784-1:2004:

- partition of EN 61158 Parts 3, 4, 5, and 6 into multiple parts numbered for example EN 61158-6-1, -6-2, -6-3, ...;
- deletion of Type 6 fieldbus in EN 61158 series and CPF 7 for lack of market relevance;
- addition of new types of fieldbuses in EN 61158 series leading to new CPF 8, 9, and 16.

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) 2009-02-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2011-05-01

Annex ZA has been added by CENELEC.

[SIST EN 61784-1:2008](https://standards.iteh.ai/catalog/standards/sist/17c99dc4-eb37-4e64-b065-a602e2b43088/sist-en-61784-1-2008)

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Endorsement notice

The text of the International Standard IEC 61784-1:2007 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 60793	NOTE	Harmonized in EN 60793 series (partially modified).
IEC 61131-3	NOTE	Harmonized as EN 61131-3:2003 (not modified).
ISO/IEC 9506-1	NOTE	Harmonized as EN ISO/IEC 29506-1:1993 (not modified).
ISO/IEC 9506-2	NOTE	Harmonized as EN ISO/IEC 29506-2:1990 (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 60079-11	- ¹⁾	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	EN 60079-11	2007 ²⁾
IEC 60079-14	2002	Electrical apparatus for explosive gas atmospheres - Part 14: Electrical installations in hazardous areas (other than mines)	EN 60079-14	2003
IEC 60079-25	- ¹⁾	Electrical apparatus for explosive gas atmospheres - Part 25: Intrinsically safe systems	EN 60079-25 + corr. April	2004 ²⁾ 2006
IEC 60079-27	- ¹⁾	Explosive atmospheres - Part 27: Fieldbus intrinsically safe concept (FISCO)	EN 60079-27	2008
IEC 61010	Series	Safety requirements for electrical equipment for measurement, control, and laboratory use	EN 61010	Series
IEC 61131-2	- ¹⁾	Programmable controllers - Part 2: Equipment requirements and tests	EN 61131-2	2007
IEC 61158	Series	Industrial communication networks - Fieldbus specifications	EN 61158	Series
IEC 61784-2	- ¹⁾	Industrial communication networks - Profiles - Part 2: Additional fieldbus profiles for real-time networks based on ISO/IEC 8802-3	EN 61784-2	2008
IEC 61784-5-2	- ¹⁾	Industrial communication networks - Profiles - Part 5-2: Installation of fieldbuses - Installation profiles for CPF 2	EN 61784-5-2	2008
IEC 61918 (mod)	- ¹⁾	Industrial communication networks - Installation of communication networks in industrial premises	EN 61918	2008
IEC 62026-3	- ¹⁾	Low-voltage switchgear and controlgear - Controller-device interfaces (CDIs) - Part 3: DeviceNet	EN 62026-3	- ³⁾

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

³⁾ At draft stage.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC 7498-1	- ¹⁾	Information technology - Open Systems Interconnection - Basic Reference Model: The Basic Model	EN ISO/IEC 7498-1	1995 ²⁾
ISO/IEC 7498-2	- ¹⁾	Information processing systems - Open systems interconnection - Basic reference model - Part 2: Security architecture	-	-
ISO/IEC 7498-3	- ¹⁾	Information technology - Open systems interconnection - Basic reference model - Part 3: Naming and addressing	-	-
ISO/IEC 8802-2	1998	Information technology - Telecommunications - and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 2: Logical link control	-	-
ISO/IEC 8802-3	2000	Information technology - Telecommunications - and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications	-	-
ISO 11898-1	- ¹⁾	Road vehicles - Controller area network (CAN) - Part 1: Data link layer and physical signalling	-	-
ISO 11898-2	- ¹⁾	Road vehicles - Controller area network (CAN) - Part 2: High-speed medium access unit	-	-
ISO 15745-3	- ¹⁾	Industrial automation systems and integration - Open systems application integration framework - Part 3: Reference description for IEC 61158 based control systems	-	-
ISO 15745-4 A1	2003 2006	Industrial automation systems and integration - Open systems application integration framework - Part 4: Reference description for Ethernet-based control systems	-	-
ANSI TIA/EIA-232-F	1997	Interface between data terminal equipment and data circuit - Terminating equipment employing serial binary data interchange	-	-
ANSI TIA/EIA-422-B	1994	Electrical characteristics of balanced voltage digital interface circuits	-	-
ANSI TIA/EIA-485-A	1998	Electrical Characteristics of Generators and Receivers for Use in Balanced Digital Multipoint Systems	-	-
IEEE 802.3	2002	IEEE Standard for Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) - Access Method and Physical Layer Specifications	-	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IETF RFC	- ¹⁾	Internet Engineering Task Force - Request for Comments	-	-
IETF RFC 768	- ¹⁾	User Datagram Protocol	-	-
IETF RFC 791	- ¹⁾	Internet Protocol - DARPA Internet Program Protocol Specification	-	-
IETF RFC 792	- ¹⁾	Internet Control Message Protocol - DARPA Internet Program Protocol Specification	-	-
IETF RFC 793	- ¹⁾	Transmission Control Protocol - DARPA Internet Program Protocol Specification	-	-
IETF RFC 826	- ¹⁾	Ethernet Address Resolution Protocol - Converting Network Protocol Addresses to 48.bit Ethernet Address for Transmission on Ethernet Hardware	-	-
IETF RFC 894	- ¹⁾	Standard for the Transmission of IP Datagrams over Ethernet Networks	-	-
IETF RFC 1112	- ¹⁾	Host Extensions for IP Multicasting	-	-
IETF RFC 1122	- ¹⁾	Requirements for Internet Hosts - Communication Layers	-	-
IETF RFC 1123	- ¹⁾	Requirements for Internet Hosts - Application and Support	-	-
IETF RFC 1127	- ¹⁾	A Perspective on the Host Requirements RFCs	-	-
IETF RFC 2236	- ¹⁾	Internet Group Management Protocol - Version 2	-	-

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Industrial communication networks – Profiles –
Part 1: Fieldbus profiles

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