



# SLOVENSKI STANDARD SIST EN 61784-1:2010

01-december-2010

Nadomešča:  
SIST EN 61784-1:2008

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**Industrijska komunikacijska omrežja - Profili - 1. del: Profili procesnih vodil (IEC 61784-1:2010)**

Industrial communication networks - Profiles - Part 1: Fieldbus profiles (IEC 61784-1:2010)

Industrielle Kommunikationsnetze - Profile - Teil 1: Feldbusprofile (IEC 61784-1:2010)

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Réseaux de communication industriels - Profils - Partie 1: Profils pour les bus de terrain (CEI 61784-1:2010)

[SIST EN 61784-1:2010](https://standards.iteh.ai/catalog/standards/sist/8f21057c-d669-4514-8e49-e674e3f8525/sist-en-61784-1-2010)

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**Ta slovenski standard je istoveten z: EN 61784-1:2010**

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**ICS:**

25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
35.100.05	Večslojne uporabniške rešitve	Multilayer applications

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**EN 61784-1**

October 2010

ICS 35.100.20; 35.240.50

Supersedes EN 61784-1:2008

English version

**Industrial communication networks -  
Profiles -  
Part 1: Fieldbus profiles  
(IEC 61784-1:2010)**

Réseaux de communication industriels -  
Profils -  
Partie 1: Profils pour les bus de terrain  
(CEI 61784-1:2010)

Industrielle Kommunikationsnetze -  
Profile -  
Teil 1: Feldbusprofile  
(IEC 61784-1:2010)

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This European Standard was approved by CENELEC on 2010-09-01. 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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 65C/600/FDIS, future edition 3 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 2010-09-01.

This European Standard supersedes EN 61784-1:2008.

The main changes with respect to the previous edition are listed below:

- update of the dated references to the EN 61158 series, to EN 61784-2, to the EN 61784-3 series, to the EN 61784-5 series and to EN 61918 throughout the document;
- update of the titles of the referenced documents and references if needed;
- update of selection tables for CPF 1, CPF 2, CPF 5 and CPF 8.

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

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) 2011-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2013-09-01

Annex ZA has been added by CENELEC [SIST EN 61784-1:2010](https://standards.iteh.ai/catalog/standards/sist/821057c-d669-4514-8e49-e674cf3f8525/sist-en-61784-1-2010)

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## Endorsement notice

The text of the International Standard IEC 61784-1:2010 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 60079-14:2007	NOTE Harmonized as EN 60079-14:2008 (not modified).
IEC 60079-25	NOTE Harmonized as EN 60079-25.
IEC 60793 series	NOTE Harmonized in EN 60793 series (partially modified).
IEC 61131-3	NOTE Harmonized as EN 61131-3.
IEC/TR 61158-1:2010	NOTE Harmonized as CLC/TR 61158-1:2010 (not modified).
ISO/IEC 7498-1	NOTE Harmonized as EN ISO/IEC 7498-1.

## 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	-	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	EN 60079-11	-
IEC 60079-27	-	Explosive atmospheres - Part 27: Fieldbus intrinsically safe concept (FISCO)	EN 60079-27	-
IEC 61010	Series	Safety requirements for electrical equipment for measurement, control and laboratory use	EN 61010	Series
IEC 61131-2	-	Programmable controllers - Part 2: Equipment requirements and tests	EN 61131-2	-
IEC 61158-2	2010	Industrial communication networks - Fieldbus specifications - Part 2: Physical layer specification and service definition	EN 61158-2	2010
IEC 61158-3-1	2007	Industrial communication networks - Fieldbus specifications - Part 3-1: Data-link layer service definition - Type 1 elements	EN 61158-3-1	2008
IEC 61158-3-2	2007	Industrial communication networks - Fieldbus specifications - Part 3-2: Data-link layer service definition - Type 2 elements	EN 61158-3-2	2008
IEC 61158-3-3	2007	Industrial communication networks - Fieldbus specifications - Part 3-3: Data-link layer service definition - Type 3 elements	EN 61158-3-3	2008
IEC 61158-3-4	2007	Industrial communication networks - Fieldbus specifications - Part 3-4: Data-link layer service definition - Type 4 elements	EN 61158-3-4	2008
IEC 61158-3-7	2007	Industrial communication networks - Fieldbus specifications - Part 3-7: Data-link layer service definition - Type 7 elements	EN 61158-3-7	2008
IEC 61158-3-8	2007	Industrial communication networks - Fieldbus specifications - Part 3-8: Data-link layer service definition - Type 8 elements	EN 61158-3-8	2008

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61158-3-16	2007	Industrial communication networks - Fieldbus specifications - Part 3-16: Data-link layer service definition - Type 16 elements	EN 61158-3-16	2008
IEC 61158-3-18	2007	Industrial communication networks - Fieldbus specifications - Part 3-18: Data-link layer service definition - Type 18 elements	EN 61158-3-18	2008
IEC 61158-4-1	2007	Industrial communication networks - Fieldbus specifications - Part 4-1: Data-link layer protocol specification - Type 1 elements	EN 61158-4-1	2008
IEC 61158-4-2	2010	Industrial communication networks - Fieldbus - specifications - Part 4-2: Data-link layer protocol specification - Type 2 elements	-	-
IEC 61158-4-3	2010	Industrial communication networks - Fieldbus - specifications - Part 4-3: Data-link layer protocol specification - Type 3 elements	-	-
IEC 61158-4-4	2007	Industrial communication networks - Fieldbus specifications - Part 4-4: Data-link layer protocol specification - Type 4 elements	EN 61158-4-4	2008
IEC 61158-4-7	2007	Industrial communication networks - Fieldbus specifications - Part 4-7: Data-link layer protocol specification - Type 7 elements	EN 61158-4-7	2008
IEC 61158-4-8	2007	Industrial communication networks - Fieldbus specifications - Part 4-8: Data-link layer protocol specification - Type 8 elements	EN 61158-4-8	2008
IEC 61158-4-16	2007	Industrial communication networks - Fieldbus specifications - Part 4-16: Data-link layer protocol specification - Type 16 elements	EN 61158-4-16	2008
IEC 61158-4-18	2010	Industrial communication networks - Fieldbus - specifications - Part 4-18: Data-link layer protocol specification - Type 18 elements	-	-
IEC 61158-5-2	2010	Industrial communication networks - Fieldbus - specifications - Part 5-2: Application layer service definition - Type 2 elements	-	-
IEC 61158-5-3	2010	Industrial communication networks - Fieldbus - specifications - Part 5-3: Application layer service definition - Type 3 elements	-	-
IEC 61158-5-4	2007	Industrial communication networks - Fieldbus specifications - Part 5-4: Application layer service definition - Type 4 elements	EN 61158-5-4	2008

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61158-5-5	2007	Industrial communication networks - Fieldbus specifications - Part 5-5: Application layer service definition - Type 5 elements	EN 61158-5-5	2008
IEC 61158-5-7	2007	Industrial communication networks - Fieldbus specifications - Part 5-7: Application layer service definition - Type 7 elements	EN 61158-5-7	2008
IEC 61158-5-8	2007	Industrial communication networks - Fieldbus specifications - Part 5-8: Application layer service definition - Type 8 elements	EN 61158-5-8	2008
IEC 61158-5-9	2007	Industrial communication networks - Fieldbus specifications - Part 5-9: Application layer service definition - Type 9 elements	EN 61158-5-9	2008
IEC 61158-5-10	2010	Industrial communication networks - Fieldbus specifications - Part 5-10: Application layer service definition - Type 10 elements	-	-
IEC 61158-5-16	2007	Industrial communication networks - Fieldbus specifications - Part 5-16: Application layer service definition - Type 16 elements	EN 61158-5-16	2008
IEC 61158-5-18	2010	Industrial communication networks - Fieldbus specifications - Part 5-18: Application layer service definition - Type 18 elements	-	-
IEC 61158-5-20	2010	Industrial communication networks - Fieldbus specifications - Part 5-20: Application layer service definition - Type 20 elements	-	-
IEC 61158-6-2	2010	Industrial communication networks - Fieldbus specifications - Part 6-2: Application layer protocol specification - Type 2 elements	-	-
IEC 61158-6-3	2010	Industrial communication networks - Fieldbus specifications - Part 6-3: Application layer protocol specification - Type 3 elements	-	-
IEC 61158-6-4	2007	Industrial communication networks - Fieldbus specifications - Part 6-4: Application layer protocol specification - Type 4 elements	EN 61158-6-4	2008
IEC 61158-6-5	2007	Industrial communication networks - Fieldbus specifications - Part 6-5: Application layer protocol specification - Type 5 elements	EN 61158-6-5	2008
IEC 61158-6-7	2007	Industrial communication networks - Fieldbus specifications - Part 6-7: Application layer protocol specification - Type 7 elements	EN 61158-6-7	2008

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61158-6-8	2007	Industrial communication networks - Fieldbus specifications - Part 6-8: Application layer protocol specification - Type 8 elements	EN 61158-6-8	2008
IEC 61158-6-9	2010	Industrial communication networks - Fieldbus - specifications - Part 6-9: Application layer protocol specification - Type 9 elements	-	-
IEC 61158-6-10	2010	Industrial communication networks - Fieldbus - specifications - Part 6-10: Application layer protocol specification - Type 10 elements	-	-
IEC 61158-6-16	2007	Industrial communication networks - Fieldbus specifications - Part 6-16: Application layer protocol specification - Type 16 elements	EN 61158-6-16	2008
IEC 61158-6-18	2010	Industrial communication networks - Fieldbus - specifications - Part 6-18: Application layer protocol specification - Type 18 elements	-	-
IEC 61158-6-20	2010	Industrial communication networks - Fieldbus - specifications - Part 6-20: Application layer protocol specification - Type 20 elements	-	-
IEC 61784-2	2010	Industrial communication networks - Profiles - Part 2: Additional fieldbus profiles for real-time networks based on ISO/IEC 8802-3	EN 61784-2	2010
IEC 61784-5-2	2010	Industrial communication networks - Profiles - Part 5-2: Installation of fieldbuses - Installation profiles for CPF 2	prEN 61784-5-2	-
IEC 61918 (mod)	2010	Industrial communication networks - Installation of communication networks in industrial premises	prEN 61918	2009
IEC 62026-3	-	Low-voltage switchgear and controlgear - Controller-device interfaces (CDIs) - Part 3: DeviceNet	EN 62026-3	-
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 15745-3	2003	Industrial automation systems and integration - - Open systems application integration framework - Part 3: Reference description for IEC 61158 based control systems	-	-



<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 15745-4	2003	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-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	-	-
IETF RFC 768	-	User Datagram Protocol	-	-
IETF RFC 791	-	Internet Protocol - DARPA Internet Program Protocol Specification	-	-
IETF RFC 792	-	Internet Control Message Protocol	-	-
IETF RFC 793	-	Transmission Control Protocol - DARPA Internet Program Protocol Specification	-	-
IETF RFC 826	-	Ethernet Address Resolution Protocol	-	-
IETF RFC 894	-	Standard for the Transmission of IP Datagrams over Ethernet Networks	-	-
IETF RFC 1112	-	Host Extensions for IP Multicasting	-	-
IETF RFC 1123	-	Requirements for Internet Hosts - Application and Support	-	-
IETF RFC 1122	-	Requirements for Internet Hosts - Communication Layers	-	-
IETF RFC 1127	-	Perspective on the Host Requirements RFCs	-	-
IETF RFC 2236	-	Internet Group Management Protocol A	-	-

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# INTERNATIONAL STANDARD

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Industrial communication networks – Profiles –  
Part 1: Fieldbus profiles

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