SLOVENSKI STANDARD
SIST EN 61918:2014

01-junij-2014

Industrijska komunikacijska omrežja - Inštalacija komunikacijskih omrežij v industrijskih okoljih (IEC 61918:2013 spremenjen)

Industrial communication networks - Installation of communication networks in industrial premises (IEC 61918:2013, modified)

Industrielle Kommunikationsnetze - Installation von Kommunikationsnetzen in Industrieanlagen (IEC 61918:2013, modifiziert)

Réseaux de communication industriels - Installation des réseaux de communication dans les locaux industriels (CEI 61918:2013, modifiée)

Ta slovenski standard je istoveten z: **EN 61918:2013**

ICS:

25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
35.110	Omreževanje	Networking

SIST EN 61918:2014 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61918

December 2013

ICS 25.040.40; 33.020; 35.240.50

Supersedes EN 61918:2008

English version

Industrial communication networks - Installation of communication networks in industrial premises

(IEC 61918:2013, modified)

Réseaux de communication industriels - Installation de réseaux de communication dans des locaux industriels
(CEI 61918:2013, modifiée)

Industrielle Kommunikationsnetze – Installation von Kommunikationsnetzen in Industrieanlagen
(IEC 61918:2013, modifiziert)

This European Standard was approved by CENELEC on 2013-10-02. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CENELEC

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 61918:2013 E

Foreword

The text of document 65C/737/FDIS, future edition 3 of IEC 61918, 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 approved by CENELEC as EN 61918:2013.

A draft amendment, which covers common modifications to IEC 61918:2013, was prepared by CLC/TC 65X "Industrial-process measurement, control and automation" and approved by CENELEC.

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2014-10-02
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2016-10-02

This document supersedes EN 61918:2008.

EN 61918:2013 includes the following significant technical changes with respect to EN 61918:2008:

– some terms and abbreviated terms have been added to Clause 3;

– Subclauses 4.4.3.4.1, 4.4.7.2.1, and 4.4.7.3 have been updated;

– Subclause 5.7.4.3 has been updated as result of the revision of the installation profiles;

– Subclause 6.2.3.1 has been updated;

– Subclause 8.1 has been updated;

– Figure 2, Figure 13, Figure 15, Figure 29, Figure H.1, Table 3, Table 6, Table 7, Table 14, Table B.3 and Table B.5 have been updated;

– a new Figure 35 has been added;

– a new Table 10 has been added;

– Annex D and Annex M have been extended to cover additional communication profile families;

– Annex F has been extended to cover conductor sizes in electrical cables;

– Annex H has been made normative; some common requirements are extended as result of the revision of the installation profiles;

– a new informative Annex O has been added.

This standard is to be used in conjunction with the EN 61784-5 series with regard to the installation of communication profiles (CPs). This standard is to be used in conjunction with ISO/IEC 14763-2 with regard to the installation of generic cabling in accordance with EN 50173-3.

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

Endorsement notice

The text of the International Standard IEC 61918:2013 was approved by CENELEC as a European Standard with agreed common modifications.

COMMON MODIFICATIONS

- **Introduction**

Replace the last paragraph before Figure 2 by:

For the installation of generic cabling this standard is to be used in conjunction with EN 50174 (see Figure 2).

- **Figure 2 – Standards relationships**

Replace the original figure by the following one, which shows the standards relationships at European level:

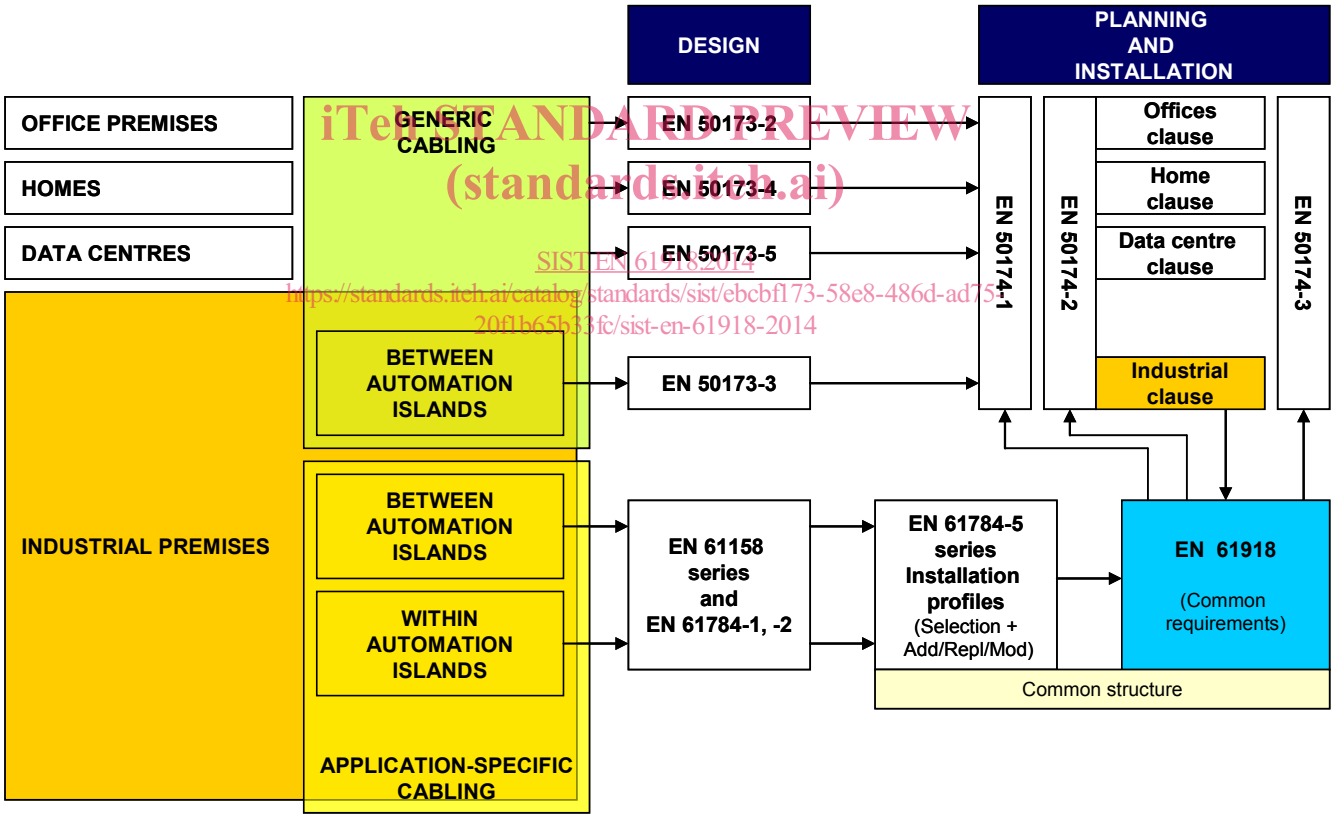

Figure 2 - Network installation: Standards relationships at European level

- **2 Normative references**

In EN 61918 the normative references shall be modified as follows: EN 50288 replaces IEC 61156 and HD 60364 replaces IEC 60364.

- In IEC 61918 the generic cabling is intended as ‘in accordance with ISO/IEC 24702’.

In EN 61918 the generic cabling shall be intended as ‘in accordance with EN 50173-3’.

- In the Bibliography, **add** the following notes for the standards indicated:

IEC 60060-1	NOTE	Harmonized as EN 60060-1.
IEC 60079-11:2011	NOTE	Harmonized as EN 60079-11:2012 (not modified).
IEC 60079-14	NOTE	Harmonized as EN 60079-14.
IEC 60228	NOTE	Harmonized as EN 60228.
IEC 60332-1 series	NOTE	Harmonized in EN 60332-1 series.
IEC 60364 series	NOTE	Harmonized in EN/HD 60364 series.
IEC 60512-4 series	NOTE	Harmonized in EN 60512-4 series.
IEC 60664-1	NOTE	Harmonized as EN 60664-1.
IEC 60670-1:2002	NOTE	Harmonized as EN 60670-1:2005 (modified).
IEC 60950-21	NOTE	Harmonized as EN 60950-21.
IEC 61000-4-4	NOTE	Harmonized as EN 61000-4-4.
IEC 61000-6-2	NOTE	Harmonized as EN 61000-6-2.
IEC 61000-6-4	NOTE	Harmonized as EN 61000-6-4.
IEC 61010-1	NOTE	Harmonized as EN 61010-1.
IEC 61131-2:2007	NOTE	Harmonized as EN 61131-2:2007 (not modified).
IEC 61508-4	NOTE	Harmonized as EN 61508-4.
IEC 61984:2008	NOTE	Harmonized as EN 61984:2009 (not modified).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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.

Publication	Year	Title	EN/HD	Year
-	-	Multi-element metallic cables used in analogue and digital communication and control	EN 50288	Series
-	-	Application of equipotential bonding and earthing in buildings with information technology equipment	EN 50310	-
IEC 60364-1 (mod) + corr. August	2005 2009	Low-voltage electrical installations - Part 1: Fundamental principles, assessment of general characteristics, definitions	HD 60364-1	2008
IEC 60364-4-41	-	Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock	HD 60364-4-41	-
IEC 60364-4-44	-	Low-voltage electrical installations - Part 4-44: Protection for safety - Protection against voltage disturbances and electromagnetic disturbances	HD 60364-4-442	-
IEC 60364-5-54	-	Low-voltage electrical installations - Part 5-54: Selection and erection of electrical equipment - Earthing arrangements and protective conductors	HD 60364-5-54	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	EN 60529	-
IEC 60603	Series	Connectors for frequencies below 3 MHz for use with printed boards	EN 60603	Series
IEC 60603-7	Series	Connectors for electronic equipment - Part 7: Detail specification for 8-way, shielded, free and fixed connectors	EN 60603-7	Series
IEC 60757	-	Code for designation of colours	HD 457 S1	-
IEC 60793	Series	Optical fibres	EN 60793	Series
IEC 60793-2-10	-	Optical fibres - Part 2-10: Product specifications - Sectional specification for category A1 multimode fibres	EN 60793-2-10	-
IEC 60794	Series	Optical fibre cables	EN 60794	Series
IEC 60807-2	-	Rectangular connectors for frequencies below 3-MHz - Part 2: Detail specification for a range of connectors, with assesed quality, with trapezoidal shaped metal shells and round contacts - Fixed solder contact types		-

Publication	Year	Title	EN/HD	Year
IEC 60807-3	-	Rectangular connectors for frequencies below 3-MHz - Part 3: Detail specification for a range of connectors with trapezoidal shaped metal shells and round contacts - Removable crimp types with closed crimp barrels, rear insertion/rear extraction		-
IEC 60825-2	-	Safety of laser products - Part 2: Safety of optical fibre communication systems (OFCS)	EN 60825-2	-
IEC 60950-1	-	Information technology equipment - Safety - Part 1: General requirements	EN 60950-1	-
IEC 61076-2-101	-	Connectors for electronic equipment - Product requirements - Part 2-101: Circular connectors - Detail specification for M12 connectors with screw-locking	EN 61076-2-101	-
IEC/PAS 61076-2-109	-	Connectors for electronic equipment - Product requirements - Part 2-109: Circular connectors - Detail specification for connectors M12 x 1 with screw-locking, for data transmissions with frequencies up to 500 MHz	-	-
IEC 61076-3-106	-	Connectors for electronic equipment - Product requirements - Part 3-106: Rectangular connectors - Detail specification for protective housings for use with 8-way shielded and unshielded connectors for industrial environments incorporating the IEC 60603-7 series interface	EN 61076-3-106	-
IEC 61076-3-117	-	Connectors for electronic equipment - Product requirements - Part 3-117: Rectangular connectors - Detail specification for protective housings for use with 8-way shielded and unshielded connectors for industrial environments incorporating the IEC 60603-7 series interface - Variant 14 related to IEC 61076-3-106 - Push pull coupling	EN 61076-3-117	-
IEC 61158	Series	Industrial communication networks - Fieldbus specifications	EN 61158	Series
IEC 61158-2	201X[1)]	Industrial communication networks - Fieldbus specifications - Part 2: Physical layer specification and service definition	EN 61158-2	201X[1)]
IEC 61169-8	-	Radio-frequency connectors - Part 8: Sectional specification - RF coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with bayonet lock - Characteristics impedance 50 ohms (type BNC)	EN 61169-8	-
IEC 61753	Series	Fibre optic interconnecting devices and passive components performance standard	EN 61753	Series

[1)] To be published.

Publication	Year	Title	EN/HD	Year
IEC 61754-2	-	Fibre optic connector interfaces - Part 2: Type BFOC/2,5 connector family	EN 61754-2	-
IEC 61754-4	-	Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 4: Type SC connector family	EN 61754-4	-
IEC 61754-20	-	Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 20: Type LC connector family	EN 61754-20	-
IEC 61754-22	-	Fibre optic connector interfaces - Part 22: Type F-SMA connector family	EN 61754-22	-
IEC 61754-24	-	Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 24: Type SC-RJ connector family	EN 61754-24	-
IEC 61784	Series	Industrial communication networks - Profiles	EN 61784	Series
IEC 61784-1	-	Industrial communication networks - Profiles - Part 1: Fieldbus profiles	EN 61784-1	-
IEC 61784-2	201X[1)]	Industrial communication networks - Profiles - Part 2: Additional fieldbus profiles for real-time networks based on ISO/IEC 8802-3	EN 61784-2	201X[1)]
IEC 61784-3	-	Industrial communication networks - Profiles - Part 3: Functional safety fieldbuses - General rules and profile definitions	EN 61784-3	-
IEC 61784-5	Series	Industrial communication networks - Profiles - Part 5-2: Installation of fieldbuses - Installation profiles for CPF 2	EN 61784-5	Series
IEC 61935-1 (mod) + corr. October	2009 2010	Specification for the testing of balanced and coaxial information technology cabling - Part 1: Installed balanced cabling as specified in ISO/IEC 11801 and related standards	EN 61935-1	2009
IEC 61935-2	-	Specification for the testing of balanced and coaxial information technology cabling - Part 2: Cords as specified in ISO/IEC 11801 and related standards	EN 61935-2	-
IEC 62026-3	-	Low-voltage switchgear and controlgear - Controller-device interfaces (CDIs) - Part 3: DeviceNet	EN 62026-3	-
IEC 62439	Series	Industrial communication networks - High availability automation networks	EN 62439	Series
IEC 62443	Series	Industrial communication networks - Network and system security	-	-
ISO/IEC 8802-3	-	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/IEC 11801 + corr. October + corr. December + A1 + A2	2002 2002 2002 2008 2010	Information technology - Generic cabling for customer premises	-	-

Publication	Year	Title	EN/HD	Year
ISO/IEC 14763-2	2012	Information technology - Implementation and operation of customer premises cabling - Part 2: Planning and installation	-	-
ISO/IEC 14763-3	-	Information technology - Implementation and operation of customer premises cabling - Part 3: Testing of optical fibre cabling	-	-
ISO/IEC 24702 +A1	2006 2009	Information technology - Generic cabling - Industrial premises	-	-
IEEE 802.3	-	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	-	-
IEEE 802.3at	-	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 - Amendment 3: Data Terminal Equipment (DTE) Power Via the Media Dependent Interface (MDI) Enhancements	-	-
ANSI/NFPA T3.5.29 R1	2007	Fluid power systems and components - Electrically-controlled industrial valves - Interface dimensions for electrical connectors	-	-

IEC 61918

Edition 3.0 2013-08

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Industrial communication networks – Installation of communication networks in industrial premises

Réseaux de communication industriels – Installation de réseaux de communication dans des locaux industriels

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