



# SLOVENSKI STANDARD

## SIST EN 61918:2010

01-januar-2010

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### Industrijska komunikacijska omrežja - Inštalacija komunikacijskih omrežij v industrijskih okoljih (IEC 61918:2007, spremenjen)

Industrial communication networks - Installation of communication networks in industrial premises

Industrielle Kommunikationsnetze - Installation von Kommunikationsnetzen in Industrieanlagen

Réseaux de communication industriels - Installation des réseaux de communication dans les locaux industriels

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**Ta slovenski standard je istoveten z: EN 61918:2008**

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#### **ICS:**

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

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61918**

May 2008

ICS 35.110; 25.040.40; 33.180; 22.060

English version

**Industrial communication networks -  
Installation of communication networks in industrial premises  
(IEC 61918:2007, modified)**

Réseaux de communication industriels -  
Installation des réseaux  
de communication  
dans les locaux industriels  
(CEI 61918:2007, modifiée)

Industrielle Kommunikationsnetze -  
Installation von Kommunikationsnetzen  
in Industrieanlagen  
(IEC 61918:2007, modifiziert)

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This European Standard was approved by CENELEC on 2008-03-01. 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 two official versions (English and 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 the International Standard IEC 61918:2007, prepared by SC 65C, Industrial networks, of IEC TC 65, Industrial-process measurement, control and automation, together with common modifications agreed between the Technical Committees CENELEC TC 65CX, Fieldbus, and CENELEC TC 215, Electrotechnical aspects of telecommunication equipment, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 61918 on 2008-03-01.

This standard is to be used in conjunction with EN 61784-5 series with regard to the installation of communication profiles (CPs) and with series EN 50174 with regard to the installation of generic cabling in accordance with EN 50173-3.

IEC 61918 was developed in cooperation with ISO/IEC JTC1/SC 25 which is responsible for ISO/IEC 24702.

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) 2009-03-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2011-03-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

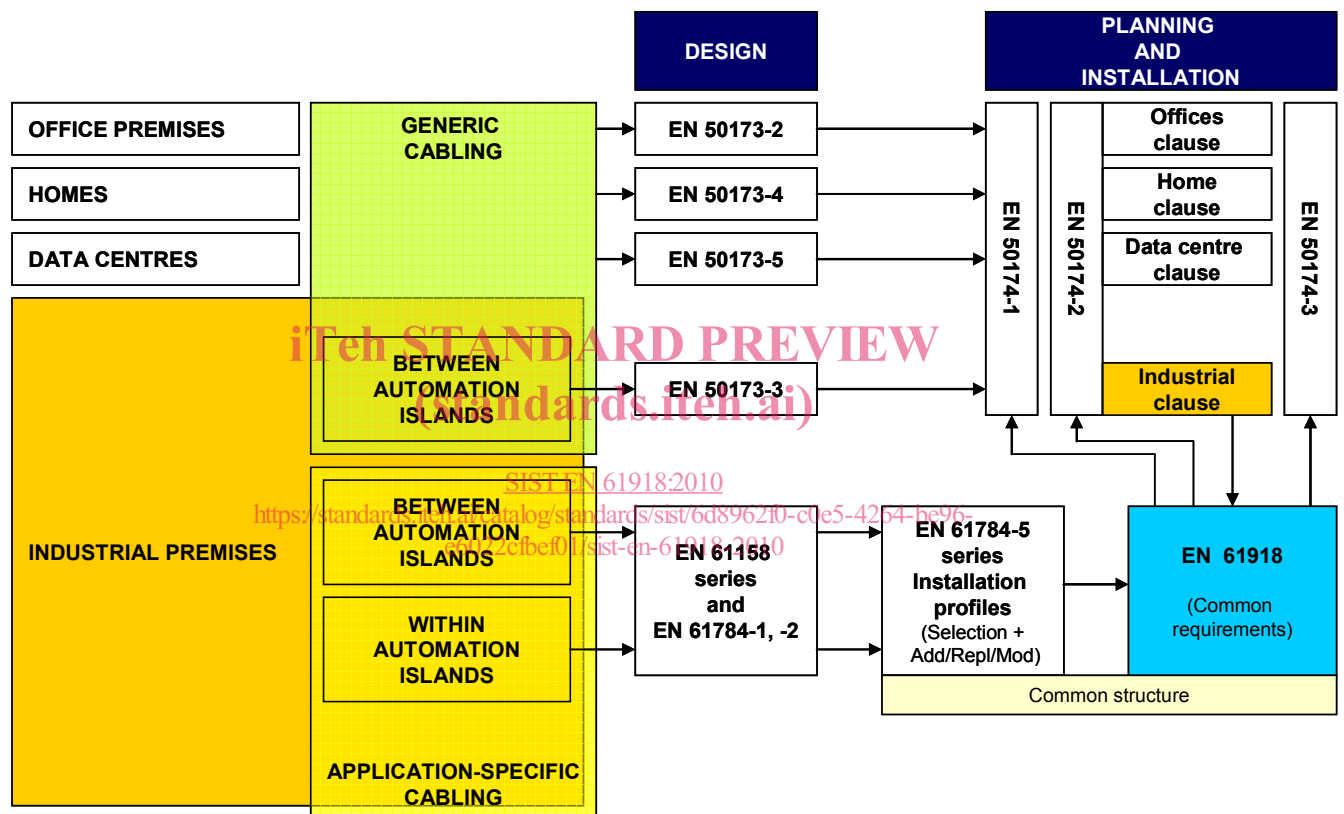
The text of the International Standard IEC 61918:2007 was approved by CENELEC as a European Standard with agreed common modifications as given below.

### COMMON MODIFICATIONS

#### Introduction

Replace the last paragraph, including Figure 2, by:

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



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'.

**Figure 2 - Network installation: Standards relationships at European level**

**Bibliography**

The following notes have to be added for the standards indicated:

|                |      |  |
|----------------|------|--|
| IEC 60079-11   | NOTE | Harmonized as EN 60079-11:2007 (not modified).   |
| IEC 60079-27   | NOTE | Harmonized as EN 60079-27:2008 (not modified).   |
| IEC 60332-1    | NOTE | Harmonized in EN 60332-1 series (not modified).  |
| IEC 60512-4    | NOTE | Harmonized in EN 60512-4 series (not modified).  |
| IEC 60664-1    | NOTE | Harmonized as EN 60664-1:2007 (not modified).  |
| IEC 60670-1    | NOTE | Harmonized as EN 60670-1:2005 (modified).  |
| IEC 60950-21   | NOTE | Harmonized as EN 60950-21:2003 (not modified).   |
| IEC 61000-4    | NOTE | Harmonized in EN 61000-4 series (not modified).  |
| IEC 61000-6-2  | NOTE | Harmonized as EN 61000-6-2:2005 (not modified).  |
| IEC 61000-6-4  | NOTE | Harmonized as EN 61000-6-4:2007 (not modified).  |
| IEC 61010-1    | NOTE | Harmonized as EN 61010-1:2001 (not modified).  |
| IEC 61131-2    | NOTE | Harmonized as EN 61131-2:2003 (not modified).<br>EN 61131-2:2003 is superseded by EN 61131-2:2007 which is based on IEC 61131-2:2007 |
| IEC/TR 61158-1 | NOTE | Harmonized as CLC/TR 61158-1:2004 (not modified).  |
| IEC 61326-1    | NOTE | Harmonized as EN 61326-1:2006 (not modified).  |
| IEC 61984      | NOTE | Harmonized as EN 61984:2001 (not modified).  |
| ISO/IEC 9314-3 | NOTE | Harmonized as EN ISO/IEC 9314-3:1995 (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 1 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Where a standard cited below belongs to the EN 50000 series, the European Standard applies instead of the relevant International Standard.

| <u>Publication</u>   | <u>Year</u>     | <u>Title</u>  | <u>EN/HD</u>                  | <u>Year</u>                |
|----------------------|-----------------|---|-------------------------------|----------------------------|
| -                    | -               | Connector sets and interconnect components to be used in optical fibre communication systems - Product specifications - Part 6-1: Type SC-RJ terminated on IEC 60793-2 category A1a and A1b multimode fibre | EN 50377-6-1                  | - <sup>1)</sup>            |
| -                    | -               | Sectional specification: Radio frequency coaxial connectors - Series BNC  | EN 122120                     | - <sup>1)</sup>            |
| IEC 60079-14         | - <sup>1)</sup> | Explosive atmospheres - Part 14: Electrical installations design, selection and erection  | EN 60079-14                   | 200X <sup>2)</sup>         |
| IEC 60364-1 (mod)    | 2005            | Low-voltage electrical installations - Part 1: Fundamental principles, assessment of general characteristics, definitions   | HD 60364-1                    | 2008                       |
| IEC 60364-4-41 (mod) | - <sup>1)</sup> | Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock   | HD 60364-4-41<br>+ corr. July | 2007 <sup>3)</sup><br>2007 |
| IEC 60364-4-44       | - <sup>1)</sup> | Low-voltage electrical installations - Part 4-44: Protection for safety - Protection against voltage disturbances and electromagnetic disturbances  | -                             | -                          |
| IEC 60364-5-54 (mod) | - <sup>1)</sup> | Electrical installations of buildings - Part 5-54: Selection and erection of electrical equipment - Earthing arrangements, protective conductors and protective bonding conductors                          | HD 60364-5-54                 | 2007 <sup>3)</sup>         |
| IEC 60603-7          | Series          | Connectors for electronic equipment - Part 7: Detail specification for 8-way, shielded free and fixed connectors with common mating features, with assessed quality   | EN 60603-7                    | Series                     |
| IEC 60757            | - <sup>1)</sup> | Code for designation of colours   | HD 457 S1                     | 1985 <sup>3)</sup>         |
| IEC 60793            | Series          | Optical fibres  | EN 60793                      | Series                     |
| IEC 60794            | Series          | Optical fibre cables  | EN 60794                      | Series                     |

<sup>1)</sup> Undated reference.

<sup>2)</sup> To be published.

<sup>3)</sup> Valid edition at date of issue.

| <u>Publication</u> | <u>Year</u>        | <u>Title</u>  | <u>EN/HD</u>   | <u>Year</u>        |
|--------------------|--------------------|---|----------------|--------------------|
| IEC 60807-2        | - <sup>1)</sup>    | Rectangular connectors for frequencies below 3 MHz -<br>Part 2: Detail specification for a range of connectors, with assessed quality, with trapezoidal shaped metal shells and round contacts - Fixed solder contact types   | -              | -                  |
| IEC 60807-3        | - <sup>1)</sup>    | Rectangular connectors for frequencies below 3 MHz -<br>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        | - <sup>1)</sup>    | Safety of laser products -<br>Part 2: Safety of optical fibre communication systems (OFCS)  | EN 60825-2     | 2004 <sup>3)</sup> |
| IEC 60874-10       | Series             | Connectors for optical fibres and cables -<br>Part 10: Detail specification for fibre optic connector type BFOC/2,5 terminated to multimode fibre type A1   | -              | -                  |
| IEC 60874-14       | Series             | Connectors for optical fibres and cables -<br>Part 14: Detail specification for fibre optic connector type SC/PC standard terminated to multimode fibre type A1a, A1b   | -              | -                  |
| IEC 60947-5-2      | - <sup>1)</sup>    | Low-voltage switchgear and controlgear -<br>Part 5-2: Control circuit devices and switching elements - Proximity switches   | EN 60947-5-2   | 2007 <sup>3)</sup> |
| IEC 60950-1 (mod)  | 2005               | Information technology equipment - Safety -<br>Part 1: General requirements   | EN 60950-1     | 2006               |
| IEC 61076-2-101    | 200X <sup>2)</sup> | Connectors for electronic equipment - Product requirements -<br>Part 2-101: Circular connectors - Detail specification for M12 connectors with screw-locking  | -              | -                  |
| IEC 61076-3-106    | - <sup>1)</sup>    | Connectors for electronic equipment - Product requirements -<br>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 | 2006 <sup>3)</sup> |
| IEC 61076-3-117    | 200X <sup>2)</sup> | Connectors for electronic equipment - Product requirements -<br>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 | -              | -                  |
| IEC 61158-2        | - <sup>1)</sup>    | Industrial communication networks - Fieldbus specifications -<br>Part 2: Physical layer specification and service definition  | EN 61158-2     | 2008 <sup>3)</sup> |



| <u>Publication</u> | <u>Year</u>        | <u>Title</u>   | <u>EN/HD</u>  | <u>Year</u>        |
|--------------------|--------------------|--|---------------|--------------------|
| IEC 61754-2        | - <sup>1)</sup>    | Fibre optic connector interfaces -<br>Part 2: Type BFOC/2,5 connector family   | EN 61754-2    | 1997 <sup>3)</sup> |
| IEC 61754-4        | - <sup>1)</sup>    | Fibre optic connector interfaces -<br>Part 4: Type SC connector family   | EN 61754-4    | 1997 <sup>3)</sup> |
| IEC 61754-20       | - <sup>1)</sup>    | Fibre optic connector interfaces -<br>Part 20: Type LC connector family  | EN 61754-20   | 2002 <sup>3)</sup> |
| IEC 61754-22       | - <sup>1)</sup>    | Fibre optic connector interfaces -<br>Part 22: Type F-SMA connector family   | EN 61754-22   | 2005 <sup>3)</sup> |
| IEC 61784-1        | - <sup>1)</sup>    | Industrial communication networks - Profiles -<br>Part 1: Fieldbus profiles  | EN 61784-1    | 2008 <sup>3)</sup> |
| IEC 61784-2        | - <sup>1)</sup>    | Industrial communication networks - Profiles -<br>Part 2: Additional fieldbus profiles for real-time<br>networks based on ISO/IEC 8802-3   | EN 61784-2    | 2008 <sup>3)</sup> |
| IEC 61784-3        | - <sup>1)</sup>    | Industrial communication networks - Profiles -<br>Part 3: Functional safety fieldbuses - General<br>rules and profile definitions  | EN 61784-3    | 2008 <sup>3)</sup> |
| IEC 61784-4        | 200X <sup>4)</sup> | Industrial communication networks - Profiles -<br>Part 4: Profiles for secure communications in<br>industrial networks   | -             | -                  |
| IEC 61784-5-2      | - <sup>1)</sup>    | Industrial communication networks - Profiles -<br>Part 5-2: Installation of fieldbuses - Installation<br>profiles for CPF 2  | EN 61784-5-2  | 2008 <sup>3)</sup> |
| IEC 61784-5-3      | - <sup>1)</sup>    | Industrial communication networks - Profiles -<br>Part 5-3: Installation of fieldbuses - Installation<br>profiles for CPF 3  | EN 61784-5-3  | 2008 <sup>3)</sup> |
| IEC 61784-5-6      | - <sup>1)</sup>    | Industrial communication networks - Profiles -<br>Part 5-6: Installation of fieldbuses - Installation<br>profiles for CPF 6  | EN 61784-5-6  | 2008 <sup>3)</sup> |
| IEC 61784-5-10     | - <sup>1)</sup>    | Industrial communication networks - Profiles -<br>Part 5-10: Installation of fieldbuses -<br>Installation profiles for CPF 10  | EN 61784-5-10 | 2008 <sup>3)</sup> |
| IEC 61784-5-11     | - <sup>1)</sup>    | Industrial communication networks - Profiles -<br>Part 5-11: Installation of fieldbuses -<br>Installation profiles for CPF 11  | EN 61784-5-11 | 2008 <sup>3)</sup> |
| IEC 61935-1 (mod)  | 2005               | Testing of balanced communication cabling in<br>accordance with ISO/IEC 11801 -<br>Part 1: Installed cabling <sup>5)</sup>   | EN 61935-1    | 2005               |
| IEC 62439          | 200X <sup>2)</sup> | High availability automation networks  | -             | -                  |
| IEC 62443          | 200X <sup>4)</sup> | Security for industrial process measurement<br>and control - Network and system security   | -             | -                  |
| ISO/IEC 8802-3     | - <sup>1)</sup>    | Information technology - Telecommunications<br>and information exchange between systems -<br>Local and metropolitan area networks -<br>Specific requirements -<br>Part 3: Carrier sense multiple access with<br>collision detection (CSMA/CD) access method<br>and physical layer specifications | -             | -                  |

<sup>4)</sup> In preparation.

<sup>5)</sup> The title of EN 61935-1 is: *Testing of balanced communication cabling in accordance with standards series EN 50173 - Part 1: Installed cabling.*

| <u>Publication</u>   | <u>Year</u>     | <u>Title</u>  | <u>EN/HD</u>  | <u>Year</u>     |
|----------------------|-----------------|---|---|-----------------|
| ISO/IEC 11801        | 2002            | Information technology - Generic cabling for customer premises  | EN 50173-1 <sup>6)</sup> and EN 50173-2 <sup>7)</sup> | 2007<br>2007    |
| ISO/IEC 14763-1      | - <sup>1)</sup> | Information technology - Implementation and operation of customer premises cabling - Part 1: Administration                     | -   |                 |
| ISO/IEC/TR 14763-2   | - <sup>1)</sup> | Information technology - Implementation and operation of customer premises cabling - Part 2: Planning and installation          | EN 50174-2 <sup>8)</sup>                              | - <sup>1)</sup> |
| ISO/IEC 14763-3      | - <sup>1)</sup> | Information technology - Implementation and operation of customer premises cabling - Part 3: Testing of optical fibre cabling   | -   | -               |
| ISO/IEC 18010        | - <sup>1)</sup> | Information technology - Pathways and spaces for customer premises cabling  | EN 50174-1 <sup>9)</sup> and EN 50174-2               | - <sup>1)</sup> |
| ISO/IEC 24702        | 2006            | Information technology - Generic cabling- Industrial premises   | EN 50173-1 and EN 50173-3 <sup>10)</sup>              | 2007<br>2007    |
| ANSI/NFPA T3.5.29 R1 | 2003            | Fluid power systems and components - Electrically-controlled industrial valves - Interface dimensions for electrical connectors | -   | -               |

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<sup>6)</sup> The title of EN 50173-1 is: *Information technology - Generic cabling systems – Part 1: General requirements.*

<sup>7)</sup> The title of EN 50173-2 is: *Information technology - Generic cabling systems – Part 2: Office premises.*

<sup>8)</sup> The title of EN 50174-2 is: *Information technology - Cabling installation - Part 2: Installation planning and practices inside buildings.*

<sup>9)</sup> The title of EN 50174-1 is: *Information technology - Cabling installation - Part 1: Installation specification and quality assurance.*

<sup>10)</sup> The title of EN 50173-3 is: *Information technology - Generic cabling systems - Part 3: Industrial premises.*



IEC 61918

Edition 1.0 2007-12

# INTERNATIONAL STANDARD

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**Industrial communication networks – Installation of communication networks in industrial premises**

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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

PRICE CODE **XG**

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