

STN	Priemyselné komunikačné siete Inštalácia komunikačných sietí v priemyselných zariadeniach Zmena A2	STN EN IEC 61918/A2 18 4020
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Industrial communication networks - Installation of communication networks in industrial premises

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/24

STN EN IEC 61918 z marca 2019 sa bez tejto zmeny A2 môže používať do 19. 4. 2027.

Obsahuje: EN IEC 61918:2018/A2:2024, IEC 61918:2018/AMD2:2024

EUROPEAN STANDARD

EN IEC 61918:2018/A2

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2024

ICS 25.040.40; 33.020; 35.240.50

English Version

**Industrial communication networks - Installation of
communication networks in industrial premises
(IEC 61918:2018/AMD2:2024)**

Réseaux de communication industriels - Installation de
réseaux de communication dans des locaux industriels
(IEC 61918:2018/AMD2:2024)

Industrielle Kommunikationsnetze - Installation von
Kommunikationsnetzen in Industrieanlagen
(IEC 61918:2018/AMD2:2024)

This amendment A2 modifies the European Standard EN IEC 61918:2018; it was approved by CENELEC on 2024-04-19. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 61918:2018/A2:2024 (E)**European foreword**

The text of document 65C/1282/FDIS, future IEC 61918/AMD2, 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 IEC 61918:2018/A2:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2025-01-19
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2027-04-19

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 61918:2018/AMD2:2024 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

The Annex ZA of EN IEC 61918:2018 applies with the following changes:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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Delete the following reference:

IEC 60603	series	Connectors for electronic equipment	EN 60603	series
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Add the following new references:

IEC 61076-2-104	-	Connectors for electronic equipment - Product requirements - Part 2-104: Circular connectors - Detail specification for circular connectors with M8 screw-locking or snap-locking	EN 61076-2-104	-
IEC 61076-2-114	-	Connectors for electrical and electronic equipment - Product requirements - Part 2-114: Circular connectors - Detail specification for connectors with M8 screw-locking with power contacts and signal contacts for data transmission up to 100 MHz	EN IEC 61076-2-114	-
IEC 61076-3-122	-	Connectors for electrical and electronic equipment - Product requirements - Part 3-122: Detail specification for 8-way, shielded, free and fixed connectors for I/O and data transmission with frequencies up to 500 MHz and current-carrying capacity in industrial environments	EN IEC 61076-3-122	-
IEC 61076-3-124	-	Connectors for electrical and electronic equipment - Product requirements - Part 3-124: Rectangular connectors - Detail specification for 10-way, shielded, free and fixed connectors for I/O and data transmission with frequencies up to 500 MHz	EN IEC 61076-3-124	-

EN IEC 61918:2018/A2:2024 (E)

IEC 61156-13	2023	Multicore and symmetrical pair/quad cables for digital communications - Part 13: Symmetrical single pair cables with transmission characteristics up to 20 MHz - Horizontal floor wiring - Sectional specification	-	-
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Replace the existing reference to IEC 61158-2:2014 with the following new reference:

IEC 61158-2	2023	Industrial communication networks - Fieldbus specifications - Part 2: Physical layer specification and service definition	EN IEC 61158-2	2023
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Replace the existing reference to IEC 61784-1:— with the following new reference:

IEC 61784-1-x	-	Industrial networks - Profiles - Part 1-x: Fieldbus profiles	EN IEC 61784-1-x	-
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Replace the existing reference to IEC 61784-2:— with the following new reference

IEC 61784-2-x	-	Industrial networks - Profiles - Part 2-x: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3	EN IEC 61784-2-x	-
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Add the following new references:

IEC 63171-2	2021	Connectors for electrical and electronic equipment - Part 2: Detail specification for 2-way, shielded or unshielded, free and fixed connectors: mechanical mating information, pin assignment and additional requirements for type 2	-	-
IEC 63171-5	2022	Connectors for electrical and electronic equipment - Part 5: Detail specification for 2-way M8 and M12 circular connectors, shielded or unshielded, free and fixed - Mechanical mating information, pin assignment and additional requirements for Type 5	EN IEC 63171-5	2022

Delete the following reference:

ISO/IEC TR 11801-2017 9902		Information technology - Generic cabling for customer premises - Part 9902: Specifications for End-to-end link configurations	-	-
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Replace the existing references to ISO/IEC 14763-2:2012 and ISO/IEC 14763-2:2012/AMD1:2015 with the following new reference:

ISO/IEC 14763-2	2019	Information technology - Implementation and operation of customer premises cabling - Part 2: Planning and installation	-	-
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EN IEC 61918:2018/A2:2024 (E)

Replace the existing references to ISO/IEC 14763-3:2014 with the following new reference:

ISO/IEC 14763-3	2014	Information technology - Implementation and operation of customer premises cabling - Part 3: Testing of optical fibre cabling	-	-
AMD1	2018		-	-

Replace the existing references to ISO/IEC 14763-4:2018 with the following new reference:

ISO/IEC 14763-4	2021	Information technology - Implementation and operation of customer premises cabling - Part 4: Measurement of end-to-end (E2E)-Links, modular plug terminated links (MPTL) and direct attach cabling	-	-
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Add the following new reference:

ISO/IEC TS 29125	2017	Information Technology - Telecommunications cabling requirements for remote powering of terminal equipment	-	-
AMD1	2020			

Replace the existing reference to IEEE Std 802.3-2015 and the reference to IEEE Std 802.3cg added by IEC 61918:2018/AMD1:2022 with the following new reference and notes:

IEEE Std 802.3	2022	IEEE Standard for Ethernet	-	-
NOTE 1		The contents of IEEE Std 802.3cg have been integrated in IEEE Std 802.3-2022, Clause 146.		
NOTE 2		Physical Layer specifications for 100BASE-T1 and 1000BASE-T1 are provided in IEEE Std 802.3-2022, Clause 96 and Clause 97 respectively.		



IEC 61918

Edition 4.0 2024-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE



AMENDMENT 2
AMENDEMENT 2

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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IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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IEC 61918

Edition 4.0 2024-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE



AMENDMENT 2
AMENDEMENT 2

Industrial communication networks – Installation of communication networks in industrial premises

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

INTERNATIONAL
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COMMISSION

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ICS 25.040.40, 33.020, 35.240.50

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**INDUSTRIAL COMMUNICATION NETWORKS – INSTALLATION
OF COMMUNICATION NETWORKS IN INDUSTRIAL PREMISES****AMENDMENT 2****FOREWORD**

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Amendment 2 to IEC 61918:2018 and to IEC 61918:2018/AMD1:2022 has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial-process measurement, control and automation.

The text of this Amendment is based on the following documents:

Draft	Report on voting
65C/1282/FDIS	65C/1290/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Amendment is English.

IEC 61918:2018/AMD2:2024
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This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications/.

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- revised.

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INTRODUCTION to Amendment 2

This Amendment 2 describes the result of the maintenance activity of IEC 61918:2018 that takes into account the evolution of the technology, which is being considered during the Installation Profiles revision cycle.

The following technical changes were made in IEC 61918:2018/AMD1:2022 and IEC 61918:2018/AMD2:2024:

- a) Subclauses 4.1.2, 4.1.3, 4.2.1.2, 4.2.2, 4.2.3.2, 4.3.2.1, 4.3.2.3, 4.4.1.2.1, 4.4.2.2, 4.4.2.5, 4.4.3.1, 4.4.3.2.1, 4.4.3.4.1, 4.4.7.1.4, 4.4.7.3.1, 5.1.1, 5.7, 6.1, 6.2.8.3, 6.3.2.1.2 and 8.3.3 have been updated;
- b) Annex O has been modified by replacing the references to ISO/IEC TR 11801-9902 with references to ISO/IEC 11801-3:2017/AMD1:2021;
- c) Table B.3 has been updated;
- d) Clause B.6 has been added;
- e) Annexes D, I, J, K and M have been updated;
- f) Annex Q has been added.

1 Scope

Delete the existing fifth paragraph of the Scope.

2 Normative references

Delete the following reference:

IEC 60603 (all parts), *Connectors for electronic equipment*

Add the following new references:

IEC 61076-2-104, *Connectors for electronic equipment – Product requirements – Part 2-104: Circular connectors – Detail specification for circular connectors with M8 screw-locking or snap-locking*

IEC 61076-2-114, *Connectors for electrical and electronic equipment – Product requirements – Part 2-114: Circular connectors – Detail specification for connectors with M8 screw-locking with power contacts and signal contacts for data transmission up to 100 MHz*

IEC 61076-3-122, *Connectors for electrical and electronic equipment – Product requirements – Part 3-122: Detail specification for 8-way, shielded, free and fixed connectors for I/O and data transmission with frequencies up to 500 MHz and current-carrying capacity in industrial environments*

IEC 61076-3-124, *Connectors for electrical and electronic equipment – Product requirements – Part 3-124: Rectangular connectors – Detail specification for 10-way, shielded, free and fixed connectors for I/O and data transmission with frequencies up to 500 MHz*

IEC 61156-13:2023, *Multicore and symmetrical pair/quad cables for digital communications – Part 13: Symmetrical single pair cables with transmission characteristics up to 20 MHz – Horizontal floor wiring – Sectional specification*

Replace the existing reference to IEC 61158-2:2014 with the following new reference:

IEC 61158-2:2023, *Industrial communication networks – Fieldbus specifications – Part 2: Physical layer specification and service definition*

Replace the existing reference to IEC 61784-1:— with the following new reference:

IEC 61784-1-x, *Industrial networks – Profiles – Part 1-x: Fieldbus profiles*

Replace the existing reference to IEC 61784-2:— with the following new reference:

IEC 61784-2-x, *Industrial networks – Profiles – Part 2-x: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3*

Add the following new references:

IEC 63171-2:2021, *Connectors for electrical and electronic equipment – Part 2: Detail specification for 2-way, shielded or unshielded, free and fixed connectors: mechanical mating information, pin assignment and additional requirements for type 2*

IEC 63171-5:2022, *Connectors for electrical and electronic equipment – Part 5: Detail specification for 2-way M8 and M12 circular connectors, shielded or unshielded, free and fixed – Mechanical mating information, pin assignment and additional requirements for Type 5*

IEC 61918:2018/AMD2:2024
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Delete the following reference:

ISO/IEC TR 11801-9902:2017, Information technology – Generic cabling for customer premises – Part 9902: Specifications for End-to-end link configurations

Replace the existing references to ISO/IEC 14763-2:2012 and ISO/IEC 14763-2:2012/AMD1:2015 with the following new reference:

ISO/IEC 14763-2:2019, Information technology – Implementation and operation of customer premises cabling – Part 2: Planning and installation

Replace the existing reference to ISO/IEC 14763-3:2014 with the following new references:

ISO/IEC 14763-3:2014, Information technology – Implementation and operation of customer premises cabling – Part 3: Testing of optical fibre cabling
ISO/IEC 14763-3:2014/AMD1:2018

Replace the existing reference to ISO/IEC 14763-4:2018 with the following new reference:

ISO/IEC 14763-4:2021, Information technology – Implementation and operation of customer premises cabling – Part 4: Measurement of end-to-end (E2E) links, modular plug terminated links (MPTL) and direct attach cabling

Add the following new references:

ISO/IEC TS 29125:2017/AMD1:2020, Information technology – Telecommunications cabling requirements for remote powering of terminal equipment

Replace the existing reference to IEEE Std 802.3-2015 and the reference to IEEE Std 802.3cg added by IEC 61918:2018/AMD1:2022 with the following new reference and notes:

IEEE Std 802.3-2022, Standard for Ethernet, available at <http://www.ieee.org>

NOTE 1 The contents of IEEE Std 802.3cg have been integrated in IEEE Std 802.3-2022, Clause 146.

NOTE 2 Physical Layer specifications for 100BASE-T1 and 1000BASE-T1 are provided in IEEE Std 802.3-2022, Clause 96 and Clause 97 respectively.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN