



SLOVENSKI STANDARD SIST EN IEC 61784-2-4:2023

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Industrijska omrežja - Profili - 2-4. del: Dodatni profili procesnih vodil v realnem času po ISO/IEC 8802-3 (IEC 61784-2-4:2023)

Industrial networks - Profiles - Part 2-4: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 4 (IEC 61784-2-4:2023)

Industrielle Kommunikationsnetze - Profile - Teil 2-4: Zusätzliche Feldbusprofile für Echtzeitnetzwerke basierend auf ISO/IEC/IEEE 8802-3 - Kommunikationsprofilfamilie (CPF) 4 (IEC 61784-2-4:2023)

Réseaux industriels - Profils - Partie 2-4: Profils de bus de terrain supplémentaires pour les réseaux en temps réel fondés sur l'ISO/IEC/IEEE 8802-3 - CPF 4 (IEC 61784-2-4:2023)

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| 35.100.05 | Večslojne uporabniške rešitve | Multilayer applications |

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NORME EUROPÉENNE
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EN IEC 61784-2-4

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**Industrial networks - Profiles - Part 2-4: Additional real-time
fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 4
(IEC 61784-2-4:2023)**

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

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EN IEC 61784-2-4:2023 (E)**European foreword**

The text of document 65C/1209/FDIS, future edition 1 of IEC 61784-2-4, 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 61784-2-4:2023.

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) 2024-02-04
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-05-04

This document, together with other parts of the same series, partially supersedes EN IEC 61784-2:2019 and all of its amendments and corrigenda (if any).

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The text of the International Standard IEC 61784-2-4:2023 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 standard indicated:

IEC 61158-1 NOTE Approved as EN IEC 61158-1

IEC 61784-1 (series) NOTE Approved as EN IEC 61784-1 (series)

IEC 61784-1-0 NOTE Approved as EN IEC 61784-1-0

IEC 61784-2 (series) NOTE Approved as EN IEC 61784-2 (series)

IEC 61918 NOTE Approved as EN IEC 61918

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.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|--|------------------|-------------|
| IEC 61158 | series | Industrial communication networks - Fieldbus specifications | EN IEC 61158 | series |
| IEC 61158-2 | 2023 | Industrial communication networks - Fieldbus specifications - Part 2: Physical layer specification and service definition | EN IEC 61158-2 | 2023 |
| IEC 61158-3-4 | 2023 | Industrial communication networks - Fieldbus specifications - Part 3-4: Data-link layer service definition - Type 4 elements | EN IEC 61158-3-4 | 2023 |
| IEC 61158-4-4 | 2023 | Industrial communication networks - Fieldbus specifications - Part 4-4: Data-link layer protocol specification - Type 4 elements | EN IEC 61158-4-4 | 2023 |
| IEC 61158-5-4 | 2023 | Industrial communication networks - Fieldbus specifications - Part 5-4: Application layer service definition - Type 4 elements | EN IEC 61158-5-4 | 2023 |
| IEC 61158-6-4 | 2023 | Industrial communication networks - Fieldbus specifications - Part 6-4: Application layer protocol specification - Type 4 elements | EN IEC 61158-6-4 | 2023 |
| IEC 61784-1-4 | 2023 | Industrial networks - Profiles - Part 1-4: Fieldbus profiles - Communication Profile Family 4 | EN IEC 61784-1-4 | 2023 |
| IEC 61784-2-0 | 2023 | Industrial networks - Profiles - Part 2-0: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - General concepts and terminology | EN IEC 61784-2-0 | 2023 |
| TIA-485-A | 1998 | Electrical Characteristics of Generators and Receivers for Use in Balanced Digital Multipoint Systems | - | - |

EN IEC 61784-2-4:2023 (E)

| | | | | |
|---------------------------|------|---|---|---|
| ISO/IEC/IEEE 8802-- 3 | | Telecommunications and exchange between information technology systems - Requirements for local and metropolitan area networks - Part 3: Standard for Ethernet | - | - |
| ISO/IEC/IEEE 8802-- 11 | | Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN medium access control (MAC) and physical layer (PHY) specifications | - | - |
| IEEE Std 802 | 2014 | IEEE Standard for Local and metropolitan area networks: Overview and Architecture | - | - |
| IEEE Std 802.1AB | 2016 | IEEE Standard for Local and metropolitan area networks: Station and Media Access Control Connectivity Discovery | - | - |
| IEEE Std 802.1AS | 2020 | IEEE standard for Local and metropolitan area networks - Timing and Synchronization for Time-Sensitive Applications | - | - |
| IEEE Std 802.1Q | 2018 | IEEE Standard for Local and metropolitan area networks - Media Access Control (MAC) Bridges and Bridged Networks | - | - |
| IETF RFC 768 | 1980 | User Datagram Protocol | - | - |
| IETF RFC 791 | 1981 | Internet Protocol | - | - |
| IETF RFC 792 | 1981 | Internet Control Message Protocol | - | - |
| IETF RFC 793 | 1981 | Transmission Control Protocol | - | - |

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NORME INTERNATIONALE

Industrial networks – Profiles –

**Part 2-4: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 –
CPF 4**

Réseaux industriels – Profils –

**Partie 2-4: Profils de bus de terrain supplémentaires pour les réseaux en temps
réel fondés sur l'ISO/IEC/IEEE 8802-3 – CPF 4**

[SIST EN IEC 61784-2-4:2023](https://standards.iteh.ai/)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**INDUSTRIAL NETWORKS –
PROFILES –****Part 2-4: Additional real-time fieldbus profiles
based on ISO/IEC/IEEE 8802-3 –
CPF 4**

FOREWORD

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NOTE Combinations of protocol types are specified in the IEC 61784-1 series and the IEC 61784-2 series.

IEC 61784-2-4 has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial-process measurement, control and automation. It is an International Standard.

This first edition, together with the other parts of the same series, cancels and replaces the fourth edition of IEC 61784-2 published in 2019. This first edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 61784-2:2019:

- a) split of the original IEC 61784-2 into several subparts, one subpart for the material of a generic nature, and one subpart for each Communication Profile Family specified in the original document.

The text of this International Standard is based on the following documents:

| Draft | Report on voting |
|---------------|------------------|
| 65C/1209/FDIS | 65C/1237/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 International Standard is English.

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.

A list of all parts of the IEC 61784-2 series, published under the general title *Industrial networks – Profiles – Part 2: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.