BS EN IEC 61784-2-19:2023

BSI Standards Publication

Industrial networks — Profiles

Part 2-19: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 — CPF 19

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National foreword

This British Standard is the UK implementation of EN IEC 61784-2-19:2023. It is identical to IEC 61784-2-19:2023. It partially supersedes BS EN IEC 61784-2:2019.

The UK participation in its preparation was entrusted to Technical Committee GEL/65, Measurement and control.

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Amendments/corrigenda issued since publication

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NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 61784-2-19

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English Version

Industrial networks - Profiles - Part 2-19: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 - CPF 19 (IEC 61784-2-19:2023)

Réseaux industriels - Profils - Partie 2-19: Profils de bus de terrain supplémentaires pour les réseaux en temps réel fondés sur l'ISO/IEC/IEEE 8802-3 - CPF 19 (IEC 61784-2-19:2023)

Industrielle Kommunikationsnetze - Profile - Teil 2-19: Zusätzliche Echtzeit-Feldbusprofile basierend auf ISO/IEC/IEEE 8802-3 - CPF 19 (IEC 61784-2-19:2023)

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European foreword

The text of document 65C/1210/FDIS, future edition 1 of IEC 61784-2-19, 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 61784-2-19:2023.

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) 2024-01-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-04-11

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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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 61158-3 (series) NOTE Approved as EN 61158-3 (series)

IEC 61158-4 (series) NOTE Approved as EN 61158-4 (series)

IEC 61158-5 (series) NOTE Approved as EN 61158-5 (series)

IEC 61158-6 (series) NOTE Approved as EN 61158-6 (series)

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

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

IEC 61918 NOTE Approved as EN IEC 61918

[1] To be published. Stage at the time of publication: FprEN IEC 61784-1-X:2023.

[2] To be published. Stage at the time of publication: FprEN IEC 61784-2-X:2023.

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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.

Publication	Year	Title	EN/HD	Year
IEC 61158	series	Industrial communication networks - Fieldbus specifications	EN IEC 61158	series
IEC 61158-2	-	Industrial communication networks - Fieldbus specifications - Part 2: Physical layer specification and service definition	EN IEC 61158-2	-
IEC 61158-3-24	2023	Industrial communication networks - Fieldbus specifications - Part 3-24: Data-link layer service definition - Type 24 elements	EN IEC 61158-3-24	2023
IEC 61158-4-24	2023	Industrial communication networks - Fieldbus specifications - Part 4-24: Data-link layer protocol specification - Type 24 elements	EN IEC 61158-4-24	—[3]
IEC 61158-5-24	2023	Industrial communication networks - Fieldbus specifications - Part 5-24: Application layer service definition - Type 24 elements	EN IEC 61158-5-24	2023
IEC 61158-5-27	2023	Industrial communication networks - Fieldbus specifications - Part 5-27: Application layer service definition - Type 27 elements	EN IEC 61158-5-27	2023
IEC 61158-6-24	2023	Industrial communication networks - Fieldbus specifications - Part 6-24: Application layer protocol specification - Type 24 elements	EN IEC 61158-6-24	—[4]
IEC 61158-6-27	2023	Industrial communication networks - Fieldbus Specifications Part 6-27: Application layer protocol specification - Type 27 elements	EN IEC 61158-6-27	2023

[3] To be published. Stage at the time of publication: prEN IEC 61158-4-24:2023.

[4] To be published. Stage at the time of publication: prEN IEC 61158-6-24:2023.

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IEC 61784-1-19	2023	Industrial networks - Profiles - Part 1-19: Fieldbus profiles - Communication Profile Family 19	EN IEC 61784-1-19	—[5]
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	—[6]
ISO/IEC/IEEE 8802-3	-	Telecommunications and exchange between information technology systems - Requirements for local and metropolitan area networks - Part 3: Standard for Ethernet	-	-
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 - 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	-	-
TIA-485-A	1998	Electrical Characteristics of Generators and Receivers for Use in Balanced Digital Multipoint Systems	-	-

[5] To be published. Stage at time of publication: FprEN IEC 61784-1-19:2023.

[6] To be published. Stage at time of publication: FprEN IEC 61784-2-0:2023.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INDUSTRIAL NETWORKS – PROFILES –

Part 2-19: Additional real-time fieldbus profiles based on ISO/IEC/IEEE 8802-3 – CPF 19

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 61784-2-19 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.

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

- 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;
- new Communication Profile (CPF 19/4).

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

Draft	Report on voting
65C/1210/FDIS	65C/1238/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

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