IEC 61784-5-19

Edition 2.0 2024-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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Industrial networks – Profiles – Part 5-19: Installation of fieldbuses – Installation profiles for CPF 19

Réseaux industriels – Profils – Partie 5-19: Installation des bus de terrain – Profils d'installation pour CPF 19



IEC 61784-5-19:2024-04(en-fr)



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Réseaux industriels – Profils – Partie 5-19: Installation des bus de terrain – Profils d'installation pour CPF 19

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 25.040.40, 35.100.40

ISBN 978-2-8322-8351-6

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CONTENTS

FOREWORD 7
INTRODUCTION 9
1 Scope 10
2 Normative references 10
3 Terms, definitions and abbreviated terms 10
4 CPF19: Overview of installation profiles 10
5 Installation profile conventions 11
6 Conformance to installation profiles 12
Annex A (normative) CP 19/1 (MECHATROLINK™-II) specific installation profile 13
A.1 Installation profile scope 13
A.2 Normative references 13
A.3 Installation profile terms, definitions, and abbreviated terms 13
A.3.1 Terms and definitions 13
A.3.2 Abbreviated terms 13
A.3.3 Conventions for installation profiles 13
A.4 Installation planning 14
A.4.1 General 14
A.4.2 Planning requirements 14
A.4.3 Network capabilities 14
A.4.4 Selection and use of cabling components 16
4.4.3.3.1 Common description 21
A.4.5 Cabling planning documentation 24
A.4.6 Verification of cabling planning specification 24
A.5 Installation implementation 24
A.5.1 General requirements 24
A.5.2 Cable installation 24
A.5.3 Connector installation 26
A.5.4 Terminator installation 27
A.5.5 Device installation 27
A.5.6 Coding and labelling 27
A.5.7 Earthing and bonding of equipment and devices and shield cabling 27
A.5.8 As-implemented cabling documentation 27
A.6 Installation verification and installation acceptance test 28
A.6.1 General 28
A.6.2 Installation verification 28
A.6.3 Installation acceptance test 29
A.7 Installation administration 29
A.8 Installation maintenance and installation troubleshooting 30
A.8.1 General 30
A.8.2 Maintenance 30
A.8.3 Troubleshooting 30
A.8.4 Specific requirements for maintenance and troubleshooting 30
Annex B (normative) CP 19/2 (MECHATROLINK™-III) specific installation profile 32
B.1 Installation profile scope 32
B.2 Normative references 32
B.3 Installation profile terms, definitions, and abbreviated terms 32

B.3.1 Terms and definitions 32
B.3.2 Abbreviated terms 32
B.3.3 Conventions for installation profiles 32
B.4 Installation planning 32
B.4.1 General 32
B.4.2 Planning requirements 32
B.4.3 Network capabilities 33
B.4.4 Selection and use of cabling components 34
B.4.5 Cabling planning documentation 39
B.4.6 Verification of cabling planning specification 39
B.5 Installation implementation 39
B.5.1 General requirements 39
B.5.2 Cable installation 39
B.5.3 Connector installation 40
B.5.4 Terminator installation 41
B.5.5 Device installation 41
B.5.6 Coding and labelling 41
B.5.7 Earthing and bonding of equipment and devices and shield cabling 41
B.5.8 As-implemented cabling documentation 41
B.6 Installation verification and installation acceptance test 42
B.6.1 General 42
B.6.2 Installation verification 42
B.6.3 Installation acceptance test 43
B.7 Installation administration 43
B.8 Installation maintenance and installation troubleshooting 43
Annex C (normative) CP19/3 (Σ-LINK™ II) specific installation profile 44
C.1 Installation profile scope 44
C.2 Normative references 44
C.3 Installation profile terms, definitions, and abbreviated terms 44
C.3.1 Terms and definitions 44
C.3.2 Abbreviated terms 44
C.3.3 Conventions for installation profiles 44
C.4 Installation planning 44
C.4.1 General 44
C.4.2 Planning requirements 44
C.4.3 Network capabilities 45
C.4.4 Selection and use of cabling components 46
C.4.5 Cabling planning documentation 58
C.4.6 Verification of cabling planning specification 58
C.5 Installation implementation 58
C.5.1 General requirements 58
C.5.2 Cable installation 59
C.5.3 Connector installation 60
C.5.4 Terminator installation 61
C.5.5 Device installation 61
C.5.6 Coding and labelling 61
C.5.7 Earthing and bonding of equipment and devices and shield cabling 61
C.5.8 As-implemented cabling documentation 61
C.6 Installation verification and installation acceptance test 61

C.6.1 General 61
C.6.2 Installation verification 61
C.6.3 Installation acceptance test 62
C.7 Installation administration 63
C.8 Installation maintenance and installation troubleshooting 63
Annex D (normative) CP 19/4 (MECHATROLINK™-4) specific installation profile 64
D.1 Installation profile scope 64
D.2 Normative references 64
D.3 Installation profile terms, definitions, and abbreviated terms 64
D.3.1 Terms and definitions 64
D.3.2 Abbreviated terms 64
D.3.3 Conventions for installation profiles 64
D.4 Installation planning 64
D.4.1 General 64
D.4.2 Planning requirements 64
D.4.3 Network capabilities 65
D.4.4 Selection and use of cabling components 66
D.4.5 Cabling planning documentation 72
D.4.6 Verification of cabling planning specification 72
D.5 Installation implementation 72
D.5.1 General requirements 72
D.5.2 Cable installation 72
D.5.3 Connector installation 74
D.5.4 Terminator installation 75
D.5.5 Device installation 75
D.5.6 Coding and labelling 75
D.5.7 Earthing and bonding of equipment and devices and shield cabling 75
D.5.8 As-implemented cabling documentation 75
D.6 Installation verification and installation acceptance test 75
D.6.1 General 75
D.6.2 Installation verification 75
D.6.3 Installation acceptance test 76
D.7 Installation administration 77
D.8 Installation maintenance and installation troubleshooting 77
Bibliography 78

Figure 1 – Standards relationships 9
Figure A.1 – Topology of CP 19/1 network 15
Figure A.2 – Network expansion using repeater 15
Figure A.3 – Structure of cable 18
Figure A.4 – Dimensions of single port device connector 19
Figure A.5 – Dimensions of dual ports device connector 20
Figure A.6 – Dimensions of cable connector 20
Figure A.7 – Cable connector with inductors 21
Figure A.8 – Terminator connection in cable connector housing 22
Figure A.9 – Wiring example 26
Figure A.10 – Terminator installed in M-II cable connector 27

Figure A.11 – Division of network segment by changing terminator location 31
Figure C.1 – Topology of CP 19/3 combination of linear and T-branch network 45
Figure C.2 – Topology of CP 19/3 network example with Power adaptor 46
Figure C.3 – Structure of 6-conductor cable 49
Figure C.4 – Structure of 8-conductor cable 49
Figure C.5 – Connection for linear network 50
Figure C.6 – Dimensions of device 6 pin connector 51
Figure C.7 – Dimensions of device 6 pin connector 51
Figure C.8 – Dimensions of device 6 pin connector 52
Figure C.9 – Dimensions of device 8 pin male connector 52
Figure C.10 – Dimensions of ejector for device 8 pin male connector 53
Figure C.11 – Dimensions of device 8 pin female connector 53
Figure C.12 – Dimensions of cable 6 pin male connector 54
Figure C.13 – Dimensions of cable 6 pin female connector 54
Figure C.14 – Dimensions of cable 8 pin male connector 54
Figure C.15 – Dimensions of cable 8 pin female connector 55

Table A.1 – Basic network characteristics for balanced cabling not based on Ethernet 16
Table A.2 – Number of devices and maximum segment length 16
Table A.3 – Information relevant to copper cable: fixed cables 17
Table A.4 – Additional cable specifications 17
Table A.5 – Connectors for copper cabling CPs not based on Ethernet 18
Table A.6 – Parameters for balanced cables 25
Table A.7 – Pin assignment and wire colour coding for CP 19/1 connector 26
Table A.8 – Typical problems in a network with balanced cabling 30
Table B.1 – Network characteristics for balanced cabling based on Ethernet 34
Table B.2 – Information relevant to copper cable: fixed cables 35
Table B.3 – Information relevant to copper cable: cords 35
Table B.4 – Connectors for balanced cabling CPs based on Ethernet 36
Table B.5 – Parameters for balanced cables 39
Table B.6 – Pin assignment and wire colour coding for CP 19/2 modular and IMI connector 41
Table B.7 – Pin assignment and wire colour coding for CP 19/2 M12 connector 41
Table C.1 – Basic network characteristics for balanced cabling not based on Ethernet 46
Table C.2 – Information relevant to 6-conductor copper cable 47
Table C.3 – Information relevant to 8-conductor copper cable 48
Table C.4 – Additional cable specifications 48
Table C.5 – Connectors for copper cabling CPs not based on Ethernet 50
Table C.6 – Electric characteristics of 6pin connector 55
Table C.7 – Electric characteristics of 8pin connector 55
Table C.8 – Parameters for balanced cables 59
Table C.9 – Pin assignment and wire colour coding for CP 19/3 6 pin connector 60
Table C.10 – Pin assignment and wire colour coding for CP 19/3 8 pin connector 60

Table D.1 – Network characteristics for balanced cabling based on Ethernet 66
Table D.2 – Information relevant to copper cable: CP 19/4 type A fixed cables 67
Table D.3 – Information relevant to copper cable: CP 19/4 type B fixed cables 67
Table D.4 – Information relevant to copper cable: CP 19/4 type A fixed cords 68
Table D.5 – Information relevant to copper cable: CP 19/4 type B fixed cords 68
Table D.6 – Connectors for balanced cabling CPs based on Ethernet 69
Table D.7 – Parameters for balanced cables 73
Table D.8 – Pin assignment and wire colour coding for CP 19/4 modular and IMI connector 74
Table D.9 – Pin assignment and wire colour coding for CP 19/4 M12-4 connector 74
Table D.10 – Pin assignment and wire colour coding for CP 19/4 M12-8 connector 74

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INDUSTRIAL NETWORKS – PROFILES –

Part 5-19: Installation of fieldbuses – Installation profiles for CPF 19

FOREWORD

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IEC 61784-5-19 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 document is to be used in conjunction with IEC 61918:2018, IEC 61918:2018/AMD1:2022 and IEC 61918:2018/AMD2:2024.

This second edition cancels and replaces the first edition published in 2013. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) addition of new installation profiles CP19/3 and CP19/4 in Clause 4;
b) In Annex B, Table B.4 has been changed and Figure B.1 and Figure B.2 have been deleted;
c) Annex C is new installation profiles for CP19/3 and related references have been added;
d) Annex D is new installation profiles for CP19/4 and related references have been added.

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

Draft	Report on voting
65C/1281/FDIS	65C/1296/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 IEC 61784-5 series, published under the general title *Industrial networks – Profiles – Installation of fieldbuses*, 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, or
- revised.

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INTRODUCTION

This document is one of a series produced to facilitate the use of communication networks in industrial control systems.

IEC 61918:2018 and IEC 61918:2018/AMD1:2022 and IEC 61918/AMD2:2024 provide the common requirements for the installation of communication networks in industrial control systems. This installation profile standard provides the installation profiles of the communication profiles (CP) of a specific communication profile family (CPF) by stating which requirements of IEC 61918 fully apply and, where necessary, by supplementing, modifying, or replacing the other requirements (see Figure 1).

For general background on fieldbuses, their profiles, and relationship between the installation profiles specified in this document, see IEC 61158-1.

Each CP installation profile is specified in a separate annex of this document. Each annex is structured exactly as the reference standard IEC 61918 for the benefit of the persons representing the roles in the fieldbus installation process as defined in IEC 61918 (planner, installer, verification personnel, validation personnel, maintenance personnel, administration personnel). By reading the installation profile in conjunction with IEC 61918, these persons immediately know which requirements are common for the installation of all CPs and which are modified or replaced. The conventions used to draft this document are defined in Clause 5.

The provision of the installation profiles in one standard for each CPF (for example IEC 61784-5-19 for CPF 19) allows readers to work with standards of a convenient size.

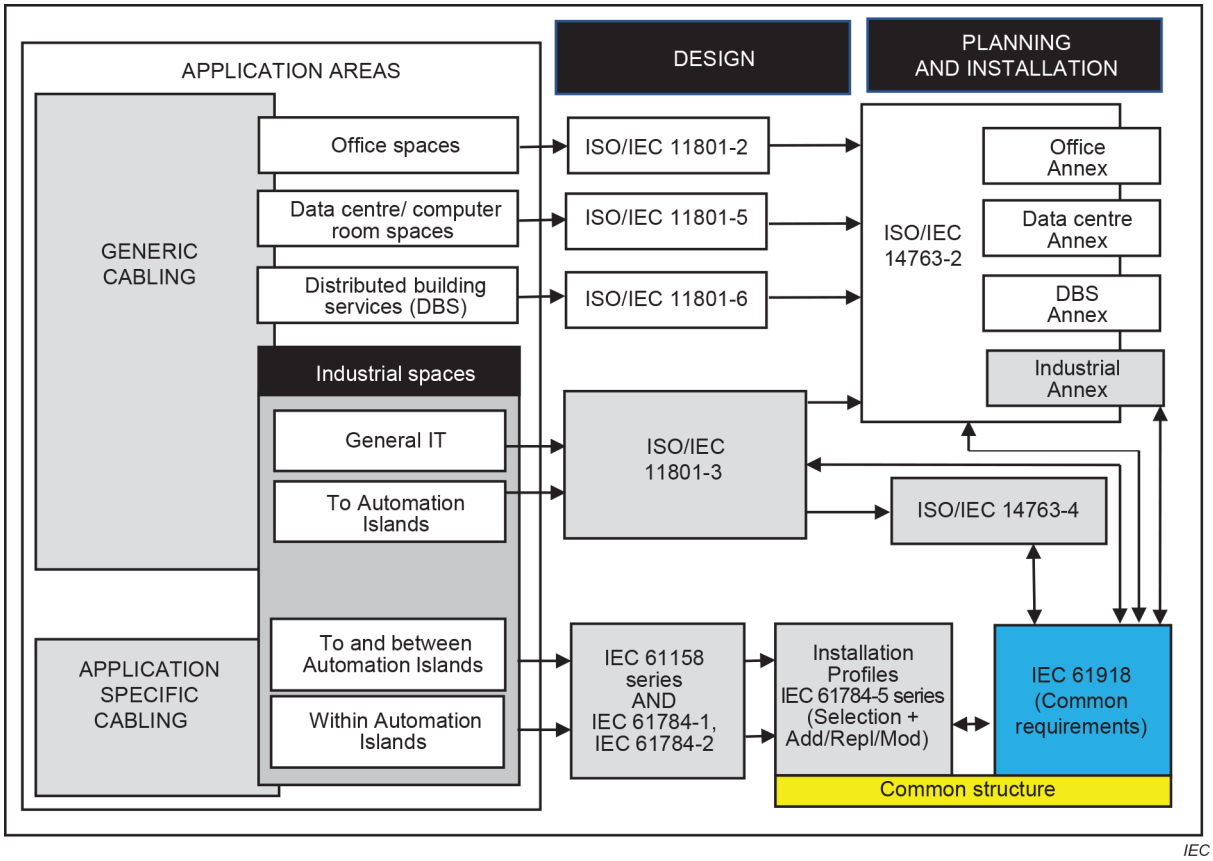


Figure 1 – Standards relationships

INDUSTRIAL NETWORKS – PROFILES –

Part 5-19: Installation of fieldbuses – Installation profiles for CPF 19

1 Scope

This part of IEC 61784-5 specifies the installation profile for CPF 19 (MECHATROLINK™[1]).

The installation profiles are specified in the annexes. These annexes are read in conjunction with IEC 61918:2018, IEC 61918:2018/AMD1:2022 and IEC 61918:2018/AMD2:2024.

2 Normative references

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.

IEC 61918:2018[2], *Industrial communication networks – Installation of communication networks in industrial premises*
IEC 61918:2018/AMD1:2022
IEC 61918:2018/AMD2:2024

NOTE For profile specific normative references, see Clauses A.2, B.2, C.2, D.2.

3 Terms, definitions and abbreviated terms

For the purposes of this document, the terms, definitions and abbreviated terms given in IEC 61918:2018, Clause 3, IEC 61918:2018/AMD1:2022, Clause 3 and Clauses A.3, B.3, C.3, and D.3,apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp

4 CPF19: Overview of installation profiles

CPF 19 consists of four communication profiles as specified in IEC 61784-1 and IEC 61784-2.

The installation requirements for CP 19/1 (MECHATROLINK™-II) are specified in Annex A.

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1 MECHATROLINK™ and Σ-LINK™ II are trade names of YASKAWA ELECTRIC CORPORATION. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the trade names holder or any of its products. Compliance to this profile does not require use of the trade names. Use of the trade name requires permission of the trade name holder.

2 The normative references of IEC 61918:2018, Clause 2, IEC 61918:2018/AMD1:2022, Clause 2 and IEC 61918:2018/AMD2:2024, Clause 2, apply.