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IEC 61784-5-12

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# INTERNATIONAL STANDARD



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**Industrial communication networks – Profiles –  
Part 5-12: Installation of fieldbuses – Installation profiles for CPF 12**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references .....	7
3 Terms, definitions and abbreviated terms .....	7
4 CPF 12: Overview of installation profiles .....	7
5 Installation profile conventions .....	8
6 Conformance to installation profiles.....	8
Annex A (normative) CP 12/1 + CP 12/2 (EtherCAT™) specific installation profile .....	10
A.1 Installation profile scope .....	10
A.2 Normative references.....	10
A.3 Installation profile terms, definitions, and abbreviated terms .....	10
A.3.1 Terms and definitions .....	10
A.3.2 Abbreviated terms .....	10
A.3.3 Conventions for installation profiles .....	10
A.4 Installation planning.....	10
A.4.1 General .....	10
A.4.2 Planning requirements.....	11
A.4.3 Network capabilities.....	11
A.4.4 Selection and use of cabling components .....	14
A.4.5 Cabling planning documentation .....	19
A.4.6 Verification of cabling planning specification.....	19
A.5 Installation implementation .....	19
A.5.1 General requirements .....	19
A.5.2 Cable installation.....	19
A.5.3 Connector installation.....	19
A.5.4 Terminator installation .....	19
A.5.5 Device installation .....	20
A.5.6 Coding and labelling .....	20
A.5.7 Earthing and bonding of equipment and devices and shield cabling.....	20
A.5.8 As-implemented cabling documentation.....	20
A.6 Installation verification and installation acceptance test .....	20
A.6.1 General .....	20
A.6.2 Installation verification.....	20
A.6.3 Installation acceptance test .....	21
A.7 Installation administration .....	21
A.8 Installation maintenance and installation troubleshooting.....	22
Figure 1 – Standards relationships.....	6
Table A.1 – Network characteristics for balanced cabling based on Ethernet .....	12
Table A.2 – Network characteristics for optical fibre cabling.....	13
Table A.3 – Information relevant to copper cable: CP12/1, CP12/2 fixed cables.....	14
Table A.4 – Information relevant to copper cable: CP12/1, CP12/2 flexible cables .....	15
Table A.5 –Information relevant to copper cable: CP12/1, CP12/2 special cables .....	15

Table A.6 – Information relevant to optical fibre cables .....	16
Table A.7 – Connectors for balanced cabling CPs based on Ethernet .....	17
Table A.8 – Optical fibre connecting hardware .....	17
Table A.9 – Relationship between FOC and fibre types (CP 12/1 and CP 12/2) .....	17

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### INDUSTRIAL COMMUNICATION NETWORKS – PROFILES –

#### Part 5-12: Installation of fieldbuses – Installation profiles for CPF 12

#### FOREWORD

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International Standard IEC 61784-5-12 has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial-process measurement, control and automation.

This second edition cancels and replaces the first edition published in 2010 and Amendment 1:2015. This edition constitutes a technical revision.

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

- a) addition of connectors (see A.4.4.2.2);
- b) alignment with IEC 61918:2018.

This standard is to be used in conjunction with IEC 61918:2018.

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

FDIS	Report on voting
65C/924/FDIS	65C/925/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 61784-5 series, published under the general title *Industrial communication 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 web site under "<http://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.

A bilingual version of this publication may be issued at a later date.

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## INTRODUCTION

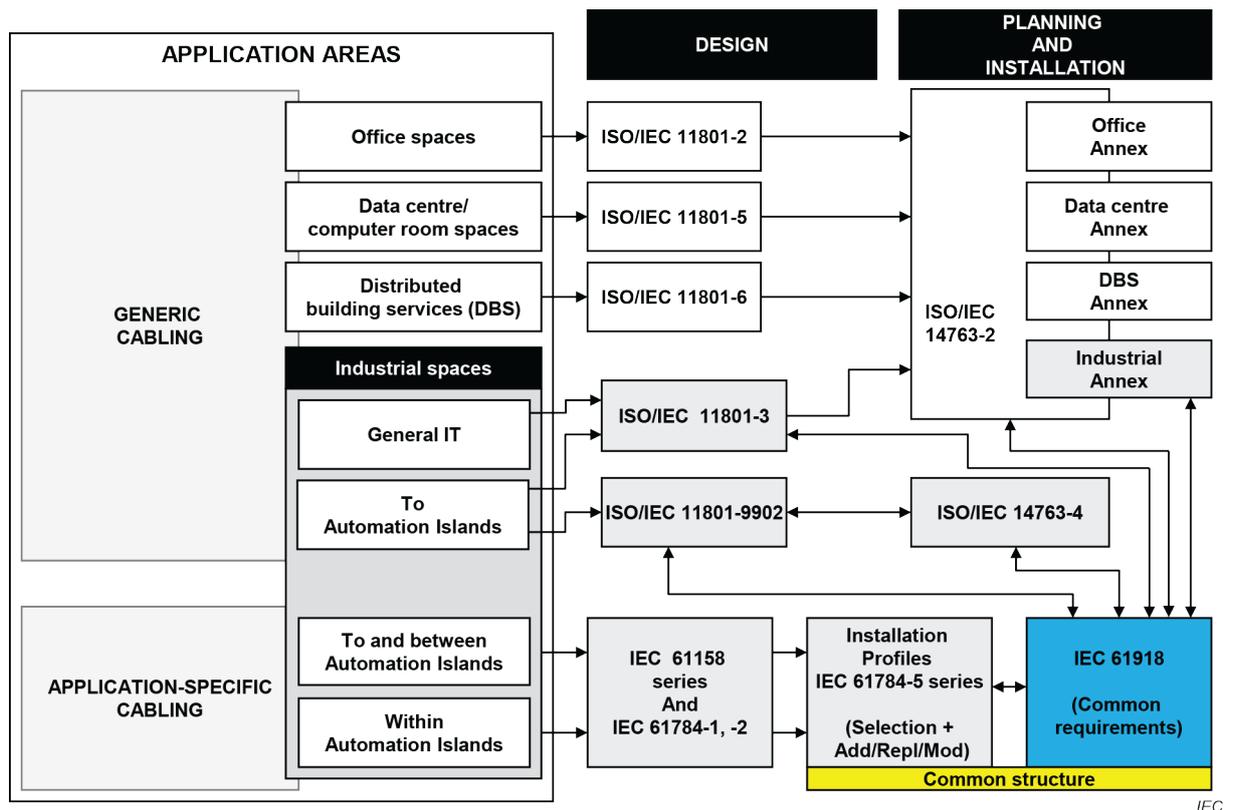
This International Standard is one of a series produced to facilitate the use of communication networks in industrial control systems.

IEC 61918:2018 provides 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 61784-5-12 for CPF 12) allows readers to work with standards of a convenient size.



**Figure 1 – Standards relationships**

Attention is drawn to the fact that the document IEC 61918 specifies all the installation requirements that apply to large part of the industrial communication networks and that these requirements automatically apply to each single network with the exception of those requirements that in the relevant document of the IEC 61784-5 series are explicitly defined as modified or replaced.

All the additions to the latest edition of the IEC 61918 apply to the networks of CPF 12.

## INDUSTRIAL COMMUNICATION NETWORKS – PROFILES –

### Part 5-12: Installation of fieldbuses – Installation profiles for CPF 12

#### 1 Scope

This part of IEC 61784 specifies the installation profiles for CPF 12 (EtherCAT™)<sup>1</sup>.

The installation profiles are specified in the annex. This annex is read in conjunction with IEC 61918:2018.

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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, *Industrial communication networks – Installation of communication networks in industrial premises*

The normative references of IEC 61918:2018, Clause 2, apply.

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

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<sup>1</sup> EtherCAT™ is a trade name of Beckhoff, Verl. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the trademark holder or any of its products. Compliance to this profile does not require use of the trade name. Use of the trade name requires permission of the trade name holder.