SVENSK STANDARD SS-EN IEC 61784-5-3

Fastställd	Utgåva	Sida	Ansvarig kommitté
2019-01-23	4	1 (1+117)	SEK TK 65

Industriell processtyrning – Profiler – Del 5-3: Installation av fältbussar – Installationsprofiler för CPF 3 (Profibus & Profinet)

Industrial communication networks – Profiles – Part 5-3: Installation of fieldbuses – Installation profiles for CPF 3

Som svensk standard gäller europastandarden EN IEC 61784-5-3:2018. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 61784-5-3:2018.

Nationellt förord

Europastandarden EN IEC 61784-5-3:2018

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 61784-5-3, Fourth edition, 2018 - Industrial communication networks - Profiles - Part 5-3: Installation of fieldbuses - Installation profiles for CPF 3**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden ska användas tillsammans med SS-EN IEC 61918, utgåva 3, 2018.

Tidigare fastställd svensk standard SS-EN 61784-5-3, utgåva 3, 2014, gäller ej fr o m 2021-10-04.

ICS 25.040.40; 35.100.40

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 61784-5-3

November 2018

ICS 25.040.40; 35.100.40

English Version

Industrial communication networks - Profiles - Part 5-3: Installation of fieldbuses - Installation profiles for CPF 3 (IEC 61784-5-3:2018)

Réseaux de communication industriels - Profils - Partie 5-3: Installation des bus de terrain - Profils d'installation pour CPF 3
(IEC 61784-5-3:2018)

Industrielle Kommunikationsnetze - Profile - Teil 5-3: Feldbusinstallation - Installationsprofile für die Kommunikationsprofilfamilie 3
(IEC 61784-5-3:2018)

This European Standard was approved by CENELEC on 2018-10-04. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 European Standard 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

Ref. No. EN IEC 61784-5-3:2018 E

European foreword

The text of document 65C/924/FDIS, future edition 4 of IEC 61784-5-3, 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 61784-5-3:2018.

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)	2019-07-04
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2021-10-04

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.

Endorsement notice

The text of the International Standard IEC 61784-5-3:2018 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.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 61918	2018	Industrial communication networks - Installation of communication networks in industrial premises	EN IEC 61918	2018

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INDUSTRIAL COMMUNICATION NETWORKS – PROFILES –

Part 5-3: Installation of fieldbuses – Installation profiles for CPF 3

FOREWORD

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International Standard IEC 61784-5-3 has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial-process measurement, control and automation.

This fourth edition cancels and replaces the third 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) an addition of 4-pair cabling (see C.4.4.1.2.1and C.5.3.2);
b) an addition of the connector M12 X-Coding (see C.4.4.2.2);
c) an addition of the definition of End-to-end links (see C.4.4.3.1);

d) a revision of Table C.17 (see C.5.2.1);

e) a formula for the NEXT limits of End-to-end links (see C.6.3.2.1.2).

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 IEC 61784-5 series, 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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 61784-5-3 for CPF 3), allows readers to work with standards of a convenient size.

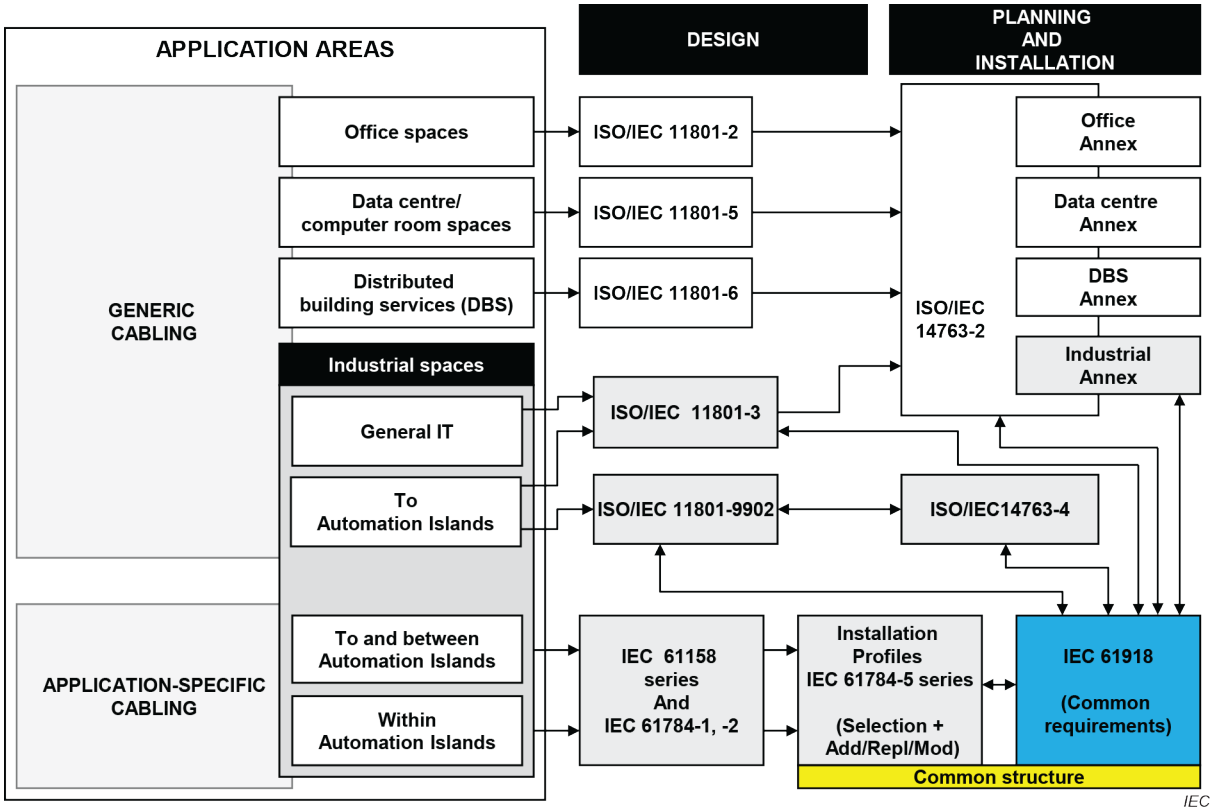

Figure 1 – Standards relationships

INDUSTRIAL COMMUNICATION NETWORKS – PROFILES –

Part 5-3: Installation of fieldbuses – Installation profiles for CPF 3

1 Scope

This part of IEC 61784-5 specifies the installation profiles for CPF 3 (PROFIBUS/PROFINET)[1].

The installation profiles are specified in the annexes. These annexes are 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 Clause(s) A.2, B.2 and C.2.

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