

BS EN 61784-5-15:2012+A1:2015



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Industrial communication networks — Profiles

Part 5-15: Installation of fieldbuses —
Installation profiles for CPF 15

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National foreword

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The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by A1 A1.

The UK participation in its preparation was entrusted to Technical Committee AMT/7, Industrial communications: process measurement and control, including fieldbus.

A list of organizations represented on this committee can be obtained on request to its secretary.

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NORME EUROPÉENNE
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English version

**Industrial communication networks -
Profiles -
Part 5-15: Installation of fieldbuses -
Installation profiles for CPF 15
(IEC 61784-5-15:2010)**

Réseaux de communication industriels -
Profils -
Partie 5-15: Installation des bus de terrain -
Profils d'installation pour CPF 15
(CEI 61784-5-15:2010)

Industrielle Kommunikationsnetze -
Profile -
Teil 5-15: Feldbusinstallation -
Installationsprofile für die
Kommunikationsprofilfamilie 15
(IEC 61784-5-15:2010)

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European Committee for Electrotechnical Standardization
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Foreword

The text of document 65C/602/FDIS, future edition 1 of IEC 61784-5-15, 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 61784-5-15:2012.

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) 2012-10-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-10-19

This standard is to be used in conjunction with IEC 61918, second edition (2010-07), together with the European Common Modification published with EN 61918:2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61784-5-15:2010 was approved by CENELEC as a European Standard without any modification.

Foreword to amendment A1

The text of document 65C/768/CDV, future IEC 61784-5-15:2010/A1, 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 61784-5-15:2012/A1:2015.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-07-23

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 When 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60603-7-3	-	Connectors for electronic equipment - Part 7-3: Detail specification for 8-way, shielded, free and fixed connectors, for data transmission with frequencies up to 100 MHz	EN 60603-7-3	-
IEC 60793-2	series	Optical fibres - Part 2: Product specifications	EN 60793-2	series
IEC 61918 (mod)	2013	Industrial communication networks - Installation of communication networks in industrial premises	EN 61918	2013
-	-		+ AC	2014

CONTENTS

INTRODUCTION.....	5
1 Scope.....	6
2 Normative references	6
3 Terms, definitions and abbreviated terms	6
4 CPF 15: Overview of installation profiles	6
5 Installation profile conventions	6
6 Conformance to installation profiles.....	7
Annex A (normative) CP 15/1 (MODBUS™-TCP) and CP 15/2 (RTPS) specific installation profile	9
Bibliography.....	23
Figure 1 – Standards relationships.....	5
Figure A.1 – Combined basic topologies	10
Table A.1 – Network characteristics for balanced cabling based on Ethernet	11
Table A.2 – Network characteristics for optical fibre cabling.....	12
Table A.3 –Information relevant to copper cable: fixed cables.....	13
Table A.4 – Information relevant to copper cable: flexible cables	14
Table A.5 –Information relevant to copper cable: special cables	14
Table A.6 – Information relevant to copper cable: cords.....	15
Table A.7 – Information relevant to optical fibre cables	16
Table A.8 – Connectors for balanced cabling CPs based on Ethernet	16
Table A.9 – Optical fibre connecting hardware	17
A1 Table A.14 – Relationship between FOC and fibre types (CP 15/1, CP15/2)	17 A1
Table A.10 – Parameters for balanced cables	19
Table A.11 – Parameters for silica optical fibre cables	19
Table A.12 – Parameters for POF optical fibre cables	20
Table A.13 – Parameters for hard clad silica optical fibre cables.....	20

INTRODUCTION

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

IEC 61918:2013 ^{A1} 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 standard, see IEC/TR 61158-1.

Each CP installation profile is specified in a separate annex of this standard. 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 standard are defined in Clause 5.

The provision of the installation profiles in one standard for each CPF (for example IEC 61784-5-15 for CPF 15), allows readers to work with standards of a convenient size.

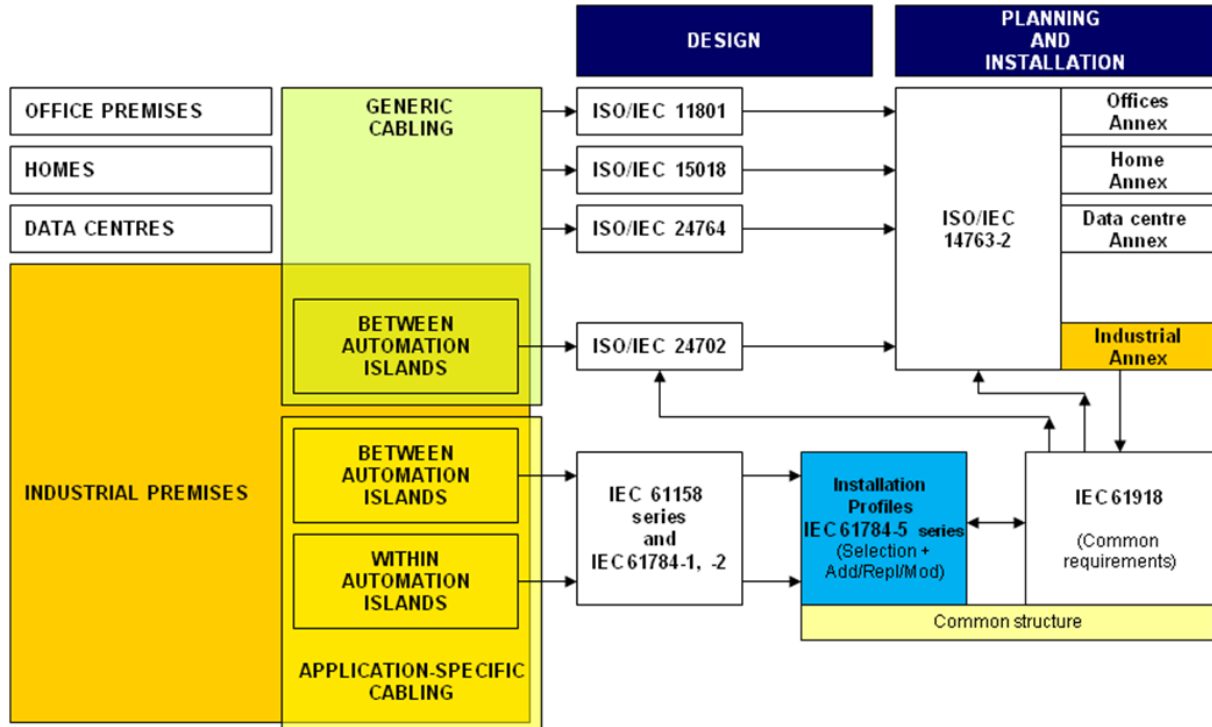


Figure 1 – Standards relationships

INDUSTRIAL COMMUNICATION NETWORKS – PROFILES –

Part 5-15: Installation of fieldbuses – Installation profiles for CPF 15

1 Scope

This part of IEC 61784 specifies the installation profiles for CPF 15/1 (MODBUS™-TCP)¹ and CPF 15/2 (RTPS).

The installation profiles are specified in the annex. This annex is read in conjunction with [A1](#) IEC 61918:2013 [A1](#).

2 Normative references

The following referenced documents are indispensable for the application 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.

[A1](#) IEC 61918:2013 [A1](#), *Industrial communication networks – Installation of communication networks in industrial premises*

The normative references of [A1](#) IEC 61918:2013 [A1](#), Clause 2, apply. For profile specific normative references, see Clause A.2.

[A1](#) IEC 60603-7-3, *Connectors for electronic equipment – Part 7-3: Detail specification for 8-way, shielded, free and fixed connectors, for data transmission with frequencies up to 100 MHz*

IEC 60793-2 (all subparts), *Optical fibres – Part 2: Product specifications* [A1](#)

3 Terms, definitions and abbreviated terms

For the purposes of this document, the terms, definitions and abbreviated terms of IEC 61918 Clause 3:2010, apply. For profile specific terms, definitions and abbreviated terms see Clause A.3.

4 CPF 15: Overview of installation profiles

CPF 15 consists of two communication profiles as specified in IEC 61784-2.

The installation requirements for CP 15/1 (MODBUS TCP) and CP 15/2 (MODBUS with RTPS) are identical and are specified in Annex A.

5 Installation profile conventions

The numbering of the clauses and subclauses in the annexes of this standard corresponds to the numbering of IEC IEC 61918 main clauses and subclauses.

¹ MODBUS is a trademark of Schneider Automation Inc. registered in the United States of America and other countries. This information is given for the convenience of users of this International Standard 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 trademark MODBUS. Use of the trademark MODBUS requires permission from Schneider Automation Inc.

The annex clauses and subclauses of this standard supplement, modify, or replace the respective clauses and subclauses in IEC 61918.

Where there is no corresponding subclause of IEC 61918 in the normative annexes in this standard, the subclause of IEC 61918 applies without modification.

The annex heading letter represents the installation profile assigned in Clause 4. The annex (sub)clause numbering following the annex letter shall represent the corresponding (sub)clause numbering of IEC 61918.

EXAMPLE “Annex B.4.4” in IEC 61784-5-3 means that CP 3/2 specifies the Subclause 4.4 of IEC 61918.

All main clauses of IEC 61918 are cited and apply in full unless otherwise stated in each normative installation profile annex.

If all subclauses of a (sub)clause are omitted, then the corresponding IEC 61918 (sub)clause applies.

If in a (sub)clause it is written “Not applicable”, then the corresponding IEC 61918 (sub)clause does not apply.

If in a (sub)clause it is written “*Addition*”, then the corresponding IEC 61918 (sub)clause applies with the additions written in the profile.

If in a (sub)clause it is written “*Replacement*”, then the text provided in the profile replaces the text of the corresponding IEC 61918 (sub)clause.

NOTE A replacement can also comprise additions.

If in a (sub)clause it is written “*Modification*”, then the corresponding IEC 61918 (sub)clause applies with the modifications written in the profile.

If all (sub)clauses of a (sub)clause are omitted but in this (sub)clause it is written “(Sub)clause x has addition” (or “replacement”) or “(Sub)clause x is not applicable”, then (sub)clause x becomes valid as declared and all the other corresponding IEC 61918 (sub)clauses apply.

6 Conformance to installation profiles

Each installation profile within this standard includes part of  IEC 61918:2013 . It may also include defined additional specifications.

A statement of compliance to an installation profile of this standard shall be stated² as either

 Compliance to IEC 61784-5-15:2010³ and Am.1 for CP 15/m <name> or
Compliance to IEC 61784-5-15 (Ed.1.0 and Am.1) for CP 15/m <name> 

where the name within the angle brackets < > is optional and the angle brackets are not to be included. The n within CP 15/n shall be replaced by the profile number 1 or 2.

NOTE The name may be the name of the profile, for example MODBUS™-TCP.

If the name is a trade name then the permission of the trade name holder shall be required.

² In accordance with ISO/IEC Directives

³ The date should not be used when the edition number is used.