

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Industrial communication networks – Profiles –  
Part 5-20: Installation of fieldbuses – Installation profiles for CPF 20**

**Réseaux de communication industriels – Profils –  
Partie 5-20: Installation des bus de terrain – Profils d'installation pour CPF 20**



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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

ICS 25.040.40; 35.100.40

ISBN 978-2-8322-9198-6

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**INDUSTRIAL COMMUNICATION NETWORKS –  
PROFILES –**

**Part 5-20: Installation of fieldbuses –  
Installation profiles for CPF 20**

**FOREWORD**

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International Standard IEC 61784-5-20 has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial-process measurement, control and automation.

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- withdrawn,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.

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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 61784-5-20 for CPF 20) allows readers to work with standards of a convenient size.

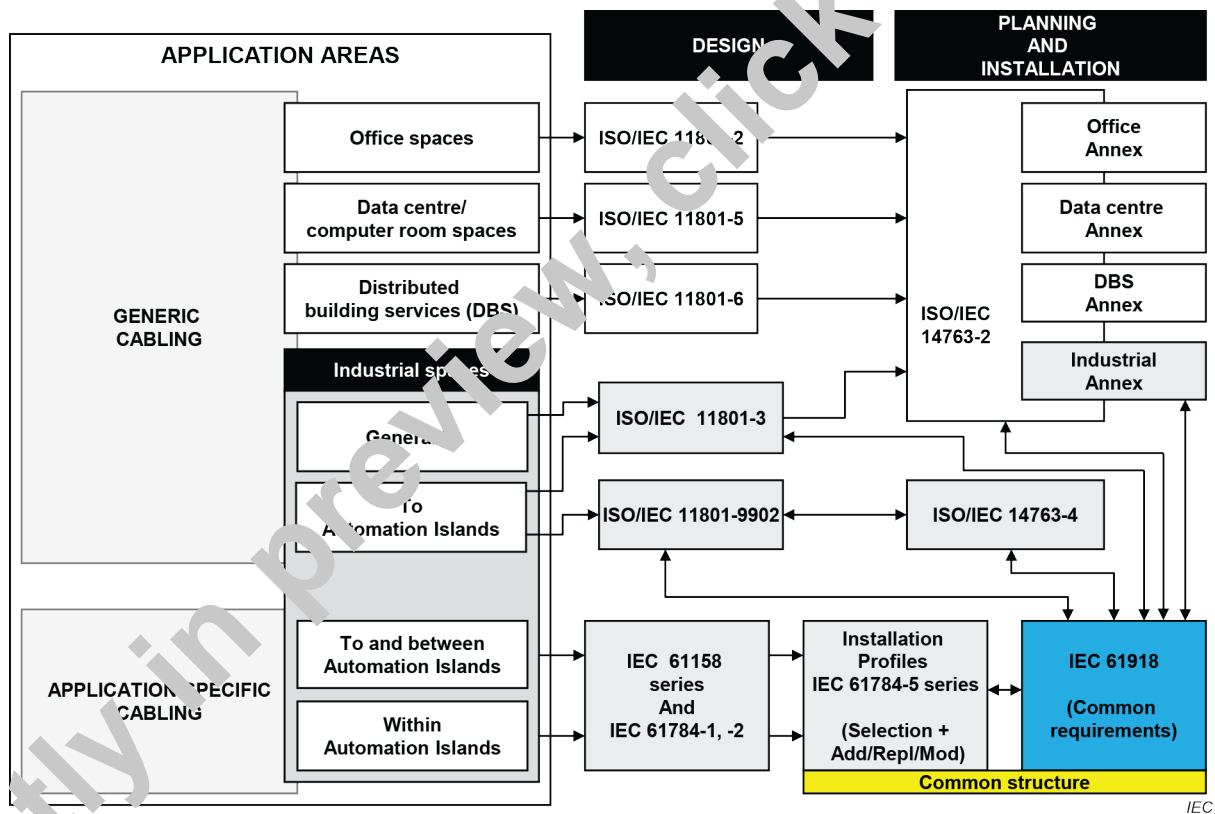


Figure 1 – Standards relationships

## INDUSTRIAL COMMUNICATION NETWORKS – PROFILES –

### Part 5-20: Installation of fieldbuses – Installation profiles for CPF 20

#### 1 Scope

This part of IEC 61784 specifies the installation profiles for CPF 20 (ADS-net<sup>1</sup>).

The installation profiles are specified in the annexes. These annexes are read in conjunction with IEC 61918:2018.

#### 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, *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 and B.2.

#### 3 Terms, definitions, symbols and abbreviations

For the purposes of this document, the terms and definitions given in IEC 61918 apply.

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

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

NOTE For profile specific terms, definitions and abbreviated terms see Clauses A.3 and B.3.

#### 4 CPF 20: Overview of installation profiles

CPF 20 consists of two Communication Profiles as specified in IEC 61784-2.

The installation requirements for CP 20/1 (ADS-net/ $\mu$ SNETWORK-1000<sup>1</sup>) are specified in Annex A.

The installation requirements for CP 20/2 (ADS-net/NX<sup>1</sup>) are specified in Annex B.

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<sup>1</sup> ADS-net, ADS-net/ $\mu$ SNETWORK-1000 and ADS-net/NX are used to describe this document.