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# TECHNICAL REPORT



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**Industrial communication networks – Fieldbus specifications –  
Part 1: Overview and guidance for the IEC 61158 and IEC 61784 series**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## CONTENTS

FOREWORD.....	5
1 Scope.....	7
2 Normative references .....	7
3 Abbreviations .....	7
4 Guidelines for implementers and users.....	7
4.1 Background and purpose.....	7
4.2 Supported options .....	8
4.3 Benefits from using a common and formal style.....	8
5 Concept of the IEC 61158 series .....	9
6 Mapping onto the OSI Basic Reference Model.....	10
6.1 Overview .....	10
6.2 Physical layer service and protocol.....	11
6.3 Data-link layer service .....	12
6.4 Data-link layer protocol .....	13
6.5 Application layer service.....	13
6.6 Application layer protocol .....	14
7 Structure of IEC 61158 and IEC 61784 series.....	15
7.1 The IEC 61158 physical layer .....	15
7.2 The IEC 61158 data-link layer .....	15
7.3 The IEC 61158 application layer.....	16
7.4 IEC 61784-1 and IEC 61784-2 fieldbus profiles .....	16
7.5 IEC 61784-3 functional safety communication profiles .....	20
7.6 IEC 61784-5 installation profiles.....	21
8 Brief summary of the characteristics of each service and protocol for each type of fieldbus .....	23
8.1 Summary of the physical layer service and protocol characteristics .....	23
8.1.1 Type 1: media.....	23
8.1.2 Type 2: Coaxial wire and optical media.....	23
8.1.3 Type 3: Twisted-pair wire and optical media .....	23
8.1.4 Type 4: Wire medium.....	24
8.1.5 Type 5: Wire and optical media .....	24
8.1.6 Type 7: Wire and optical media .....	24
8.1.7 Type 8: Twisted-pair wire and optical media .....	24
8.1.8 Type 10: Wire and optical media.....	24
8.1.9 Type 11: Wire and optical media.....	24
8.1.10 Type 12: Wire and optical media.....	24
8.1.11 Type 13: Wire and optical media.....	24
8.1.12 Type 14: Wire and optical media.....	24
8.1.13 Type 15: Wire and optical media.....	24
8.1.14 Type 16: Optical media.....	25
8.1.15 Type 17: Wire and optical media.....	25
8.1.16 Type 18 media.....	25
8.1.17 Type 19: Wire and optical media.....	25
8.2 Summary of data-link layer service characteristics .....	25
8.3 Summary of data-link layer protocol characteristics .....	26
8.4 Summary of application layer service characteristics .....	28

8.5	Summary of application layer protocol characteristics.....	29
9	Application layer service description concepts.....	31
9.1	Overview.....	31
9.2	Architectural relationships.....	32
9.2.1	Relationship to the application layer of the OSI Basic Reference Model.....	32
9.2.2	Relationships to other fieldbus entities.....	32
9.3	Fieldbus application layer structure.....	34
9.3.1	Overview.....	34
9.3.2	Fundamental concepts.....	34
9.3.3	Fieldbus application processes.....	34
9.3.4	Application process objects.....	38
9.3.5	Application entities.....	40
9.3.6	Fieldbus application service elements.....	40
9.3.7	Application relationships.....	44
9.4	Fieldbus application layer naming and addressing.....	46
9.4.1	General.....	46
9.4.2	Identifying objects accessed through the FAL.....	46
9.4.3	Addressing APs accessed through the FAL.....	47
9.5	Architecture summary.....	47
9.6	Notional FAL service procedures.....	47
9.6.1	Notional FAL confirmed service procedures.....	47
9.6.2	Notional FAL unconfirmed service procedures.....	48
9.7	Common FAL attributes.....	48
9.8	Common FAL service parameters.....	49
9.9	APDU size.....	50
10	Data type ASE.....	50
10.1	Overview.....	50
10.1.1	General.....	50
10.1.2	Overview of basic types.....	51
10.1.3	Overview of fixed-length types.....	52
10.1.4	Overview of constructed types.....	52
10.1.5	Specification of user-defined data types.....	52
10.1.6	Transfer of user data.....	53
10.2	Formal definition of data type objects.....	53
10.2.1	Data type class.....	53
Annex A (informative)	Trade name declarations.....	55
	Bibliography.....	57
	Figure 1 – Generic fieldbus network.....	9
	Figure 2 – Concept of DL/AL to separate service and protocol parts.....	10
	Figure 3 – Basic fieldbus reference model.....	11
	Figure 4 – General model of physical layer.....	12
	Figure 5 – Relationship of the IEC 61158-3 and IEC 61158-4 series to other fieldbus layers and to users of the fieldbus data-link service.....	13
	Figure 6 – Relationship of the IEC 61158-5 and IEC 61158-6 series to other fieldbus layers and to users of the fieldbus application service.....	14
	Figure 7 – Structure of communication profile families.....	17

Figure 8 – Example of a CPF structure .....	18
Figure 9 – Document structure of IEC 61918 and the IEC 61784-5 series .....	22
Figure 10 – Relationship to the OSI Basic Reference Model .....	32
Figure 11 – Architectural positioning of the fieldbus application layer.....	33
Figure 12 – Client/server interactions.....	35
Figure 13 – Pull model interactions .....	36
Figure 14 – Push model interactions .....	37
Figure 15 – APOs services conveyed by the FAL.....	38
Figure 16 – Application entity structure .....	40
Figure 17 – Example FAL ASEs .....	42
Figure 18 – FAL management of objects .....	42
Figure 19 – ASE service conveyance.....	43
Figure 20 – Defined and established AREPs.....	46
Figure 21 – FAL architectural components .....	47
Figure 22 – Data-type class hierarchy example.....	51
Table 1 – OSI and IEC 61158 layers .....	11
Table 2 – CPF, CP, and type relations .....	19
Table 3 – Types of timeliness defined for publisher/subscriber interactions.....	37
Table A.1 – Trade names of CPFs and CPs .....	55

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**INDUSTRIAL COMMUNICATION NETWORKS –  
FIELDBUS SPECIFICATIONS –****Part 1: Overview and guidance  
for the IEC 61158 and IEC 61784 series**

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NOTE Use of some of the associated protocol types is restricted by their intellectual-property-right holders. In all cases, the commitment to limited release of intellectual-property-rights made by the holders of those rights permits a particular data-link layer protocol Type to be used with physical layer and application layer protocols in Type combinations as specified explicitly in its profile parts. Use of the various protocol types in other combinations may require permission of their respective intellectual-property-right holders.

IEC 61158-1, which is a technical report, has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial-process measurement, control and automation.

This third edition cancels and replaces the second edition published in 2007. It constitutes a technical revision.

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

- Updates of the references to the IEC 61158 series, IEC 61784-1, IEC 61784-3, IEC 61784-5 series and IEC 61918 throughout the document;
- new Type 21 and the related profile family CPF 17;
- new Type 22 and the related profile family CPF 18.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
65C/590A/DTR	65C/608/RVC

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

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

A list of all the parts in the IEC 61158 series, published under the general title *Industrial communication networks – Fieldbus specifications*, can be found on the IEC web site.

The committee has decided that the contents of this publication 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 publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

NOTE The revision of this technical report will be synchronized with the other parts of the IEC 61158 series.

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.**

## **INDUSTRIAL COMMUNICATION NETWORKS – FIELDBUS SPECIFICATIONS –**

### **Part 1: Overview and guidance for the IEC 61158 and IEC 61784 series**

#### **1 Scope**

This technical report presents an overview and guidance for the IEC 61158 series by:

- explaining the structure and content of the IEC 61158 series;
- relating the structure of the IEC 61158 series to the ISO/IEC 7498 OSI Basic Reference Model;
- showing the logical structure of the IEC 61784 series;
- showing how to use parts of the IEC 61158 series in combination with the IEC 61784 series;
- providing explanations of some aspects of the IEC 61158 series that are common to the parts of the IEC 61158-5 series.