NSAI Standards

Standard Recommendation
S.R. CLC/TR 61158-1:2010

Industrial communication networks - Fieldbus specifications -- Part 1: Overview and guidance for the IEC 61158 and IEC 61784 series (IEC/TR 61158-1:2010 (EQV))

S.R. CLC/TR 61158-1:2010

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English version

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

(IEC/TR 61158-1:2010)

Industrielle Kommunikationsnetze - Feldbusse - Teil 1: Überblick und Leitfaden zu den Normen der Reihe IEC 61158 und IEC 61784 (IEC/TR 61158-1:2010)

This Technical Report was approved by CENELEC on 2010-09-01.

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

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Ref. No. CLC/TR 61158-1:2010 E

Foreword

The text of the Technical Report IEC/TR 61158-1:2010, prepared by SC 65C, Industrial networks, of IEC TC 65, Industrial-process measurement, control and automation, was submitted to vote and was approved by CENELEC as CLC/TR 61158-1 on 2010-09-01.

This Technical Report supersedes CLC/TR 61158-1:2008.

This edition includes the following significant changes with respect to CLC/TR 61158-1:2008:

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

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

Endorsement notice

The text of the Technical Report IEC/TR 61158-1:2010 was approved by CENELEC as a Technical Report without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61158-3-1:2007	NOTE Harmonized as EN 61158-3-1:2008 (not modified).
IEC 61158-3-2:2007	NOTE Harmonized as EN 61158-3-2:2008 (not modified).
IEC 61158-3-3:2007	NOTE Harmonized as EN 61158-3-3:2008 (not modified).
IEC 61158-3-4:2007	NOTE Harmonized as EN 61158-3-4:2008 (not modified).
IEC 61158-3-7:2007	NOTE Harmonized as EN 61158-3-7:2008 (not modified).
IEC 61158-3-8:2007	NOTE Harmonized as EN 61158-3-8:2008 (not modified).
IEC 61158-3-11:2007	NOTE Harmonized as EN 61158-3-11:2008 (not modified).
IEC 61158-3-13:2007	NOTE Harmonized as EN 61158-3-31:2008 (not modified).
IEC 61158-3-16:2007	NOTE Harmonized as EN 61158-3-16:2008 (not modified).
IEC 61158-3-17:2007	NOTE Harmonized as EN 61158-3-17:2008 (not modified).
IEC 61158-3-18:2007	NOTE Harmonized as EN 61158-3-18:2008 (not modified).
IEC 61158-4-1:2007	NOTE Harmonized as EN 61158-4-1:2008 (not modified).
IEC 61158-4-4:2007	NOTE Harmonized as EN 61158-4-4:2008 (not modified).
IEC 61158-4-7:2007	NOTE Harmonized as EN 61158-4-7:2008 (not modified).
IEC 61158-4-8:2007	NOTE Harmonized as EN 61158-4-8:2008 (not modified).
IEC 61158-4-13:2007	NOTE Harmonized as EN 61158-4-13:2008 (not modified).
IEC 61158-4-16:2007	NOTE Harmonized as EN 61158-4-16:2008 (not modified).
IEC 61158-4-17:2007	NOTE Harmonized as EN 61158-4-17:2008 (not modified).
IEC 61158-5-4:2007	NOTE Harmonized as EN 61158-5-4:2008 (not modified).

IEC 61158-5-5:2007	NOTE Harmonized as EN 61158-5-5:2008 (not modified).
IEC 61158-5-7:2007	NOTE Harmonized as EN 61158-5-7:2008 (not modified).
IEC 61158-5-8:2007	NOTE Harmonized as EN 61158-5-8:2008 (not modified).
IEC 61158-5-9:2007	NOTE Harmonized as EN 61158-5-9:2008 (not modified).
IEC 61158-5-11:2007	NOTE Harmonized as EN 61158-5-11:2008 (not modified).
IEC 61158-5-13:2007	NOTE Harmonized as EN 61158-5-13:2008 (not modified).
IEC 61158-5-16:2007	NOTE Harmonized as EN 61158-5-16:2008 (not modified).
IEC 61158-5-17:2007	NOTE Harmonized as EN 61158-5-17:2008 (not modified).
IEC 61158-6-4:2007	NOTE Harmonized as EN 61158-6-4:2008 (not modified).
IEC 61158-6-5:2007	NOTE Harmonized as EN 61158-6-5:2008 (not modified).
IEC 61158-6-7:2007	NOTE Harmonized as EN 61158-6-7:2008 (not modified).
IEC 61158-6-8:2007	NOTE Harmonized as EN 61158-6-8:2008 (not modified).
IEC 61158-6-13:2007	NOTE Harmonized as EN 61158-6-13:2008 (not modified).
IEC 61158-6-16:2007	NOTE Harmonized as EN 61158-6-16:2008 (not modified).
IEC 61158-6-17:2007	NOTE Harmonized as EN 61158-6-17:2008 (not modified).
IEC 61508 series	NOTE Harmonized in EN 61508 series (not modified).
IEC 61784-3:2010	NOTE Harmonized as EN 61784-3:2010 (not modified).
IEC 61784-3-1:2010	NOTE Harmonized as EN 61784-3-1:2010 (not modified).
IEC 61784-3-2:2010	NOTE Harmonized as EN 61784-3-2:2010 (not modified).
IEC 61784-3-3:2010	NOTE Harmonized as EN 61784-3-3:2010 (not modified).
IEC 61784-3-6:2010	NOTE Harmonized as EN 61784-3-6:2010 (not modified).
IEC 61784-3-8:2010	NOTE Harmonized as EN 61784-3-8:2010 (not modified).
IEC 61784-3-12:2010	NOTE Harmonized as EN 61784-3-12:2010 (not modified).
IEC 61784-3-13:2010	NOTE Harmonized as EN 61784-3-13:2010 (not modified).
IEC 61784-3-14:2010	NOTE Harmonized as EN 61784-3-14:2010 (not modified).

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INDUSTRIAL COMMUNICATION NETWORKS – FIELDBUS SPECIFICATIONS –

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

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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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.