SLOVENSKI STANDARD
SIST EN 61158-5-19:2012

01-september-2012

Nadomešča:
SIST EN 61158-5-19:2008

Industrijska komunikacijska omrežja - Specifikacije za procesno vodilo - 5-19. del: Definicija opravil na aplikacijskem nivoju - Elementi tipa 19 (IEC 61158-5-19:2010

Industrial communication networks - Fieldbus specifications - Part 5-19: Application layer service definition - Type 19 elements (IEC 61158-5-19:2010)

Industrielle Kommunikationsnetze - Feldbusse - Teil 5-19: Dienstfestlegungen des Application Layer (Anwendungsschicht) - Typ 19-Elemente (IEC 61158-5-19:2010

Réseaux de communication industriels - Spécifications des bus de terrain - Partie 5-19: Définition des services des couches d'application - Eléments de type 19 (CEI 61158-5-19:2010

Ta slovenski standard je istoveten z: EN 61158-5-19:2012

ICS:

25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
35.100.70	Uporabniški sloj	Application layer
35.110	Omreževanje	Networking

SIST EN 61158-5-19:2012   **en**

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61158-5-19

June 2012

ICS 25.040.40; 35.100.70; 35.110

Supersedes EN 61158-5-19:2008

English version

Industrial communication networks -
Fieldbus specifications -
Part 5-19: Application layer service definition -
Type 19 elements
(IEC 61158-5-19:2010)

Réseaux de communication industriels -
Spécifications des bus de terrain -
Partie 5-19: Définition des services des
couches d'application -
Eléments de type 19
(CEI 61158-5-19:2010)

Industrielle Kommunikationsnetze -
Feldbusse -
Teil 5-19: Dienstfestlegungen des
Application Layer (Anwendungsschicht) -
Typ 19-Elemente
(IEC 61158-5-19:2010)

This European Standard was approved by CENELEC on 2012-03-28. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 61158-5-19:2012 E

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Foreword

The text of document 65C/606/FDIS, future edition 2 of IEC 61158-5-19, 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 61158-5-19:2012.

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)	2012-12-28
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2015-03-28

This document supersedes EN 61158-5-19:2008.

EN 61158-5-19:2012 includes the following significant technical change with respect to EN 61158-5-19:2008:

— increasing the number of supported devices (511 instead of 254);

— introducing a communication version identification;

— adding a mechanism for remote address allocation;

— introducing enhanced parameter addressing (32 bit instead of 16 bit);

— restructuring control and status word;

— improving the redundancy and hotplug features;

— improving the error handling;

— adding a multiplexing protocol (SMP: Type 19 Messaging Protocol).

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 61158-5-19:2010 was approved by CENELEC as a European Standard without any modification.

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

IEC 61131-1	NOTE	Harmonized as EN 61131-1.
IEC/TR 61158-1:2010	NOTE	Harmonized as CLC/TR 61158-1:2010 (not modified).
IEC 61158-3-19:2010	NOTE	Harmonized as EN 61158-3-19:2012 (not modified).
IEC 61158-4-19:2010	NOTE	Harmonized as EN 61158-4-19:2012 (not modified).
IEC 61158-6-19:2010	NOTE	Harmonized as EN 61158-6-19:2012 (not modified).
IEC 61784-1:2010	NOTE	Harmonized as EN 61784-1:2010 (not modified).
IEC 61784-2:2010	NOTE	Harmonized as EN 61784-2:2010 (not modified).

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   When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60559	-	Binary floating-point arithmetic for microprocessor systems	HD 592 S1	-
IEC 61131-3	-	Programmable controllers - Part 3: Programming languages	EN 61131-3	-
IEC 61158-3-16	2007	Industrial communication networks - Fieldbus specifications - Part 3-16: Data-link layer service definition - Type 16 elements	EN 61158-3-16	2008
ISO/IEC 7498-1	-	Information technology - Open Systems Interconnection - Basic Reference Model: The Basic Model	-	-
ISO/IEC 8822	-	Information technology - Open Systems Interconnection - Presentation service definition	-	-
ISO/IEC 8824	-	Information technology - Open Systems Interconnection - Specification of Abstract Syntax Notation One (ASN.1)	-	-
ISO/IEC 9545	-	Information technology - Open Systems Interconnection - Application Layer structure	-	-
ISO/IEC 10646-1	-	Information technology - Universal Multiple-Octet Coded Character Set (UCS) - Part 1: Architecture and Basic Multilingual Plane	-	-
ISO/IEC 10731	-	Information technology - Open Systems Interconnection - Basic reference model - Conventions for the definition of OSI services	-	-

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IEC 61158-5-19

Edition 2.0   2010-08

INTERNATIONAL
STANDARD

**Industrial communication networks – Fieldbus specifications –
Part 5-19: Application layer service definition – Type 19 elements**

INTERNATIONAL
ELECTROTECHNICAL
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ICS 25.04.40; 35.100.70; 35.110

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INDUSTRIAL COMMUNICATION NETWORKS –
FIELDBUS SPECIFICATIONS –

Part 5-19: Application layer service definition –
Type 19 elements

FOREWORD

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NOTE 1   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 the profile parts. Use of the various protocol types in other combinations may require permission of their respective intellectual-property-right holders.

International Standard IEC 61158-5-19 has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial-process measurement, control and automation.

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

The main changes with respect to the previous edition are listed below:

• increasing the number of supported devices (511 instead of 254);

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- introducing a communication version identification;
- adding a mechanism for remote address allocation;
- introducing enhanced parameter addressing (32 bit instead of 16 bit);
- restructuring control and status word;
- improving the redundancy and hotplug features;
- improving the error handling;
- adding a multiplexing protocol (SMP: Type 19 Messaging Protocol).

The text of this standard is based on the following documents:

FDIS	Report on voting
65C/606/FDIS	65C/620/RVD

Full information on the voting for the approval of this standard 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 parts of 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 2   The revision of this standard will be synchronized with the other parts of the IEC 61158 series.

INTRODUCTION

This part of IEC 61158 is one of a series produced to facilitate the interconnection of automation system components. It is related to other standards in the set as defined by the "three-layer" fieldbus reference model described in IEC/TR 61158-1.

The application service is provided by the application protocol making use of the services available from the data-link or other immediately lower layer. This standard defines the application service characteristics that fieldbus applications and/or system management may exploit.

Throughout the set of fieldbus standards, the term "service" refers to the abstract capability provided by one layer of the OSI Basic Reference Model to the layer immediately above. Thus, the application layer service defined in this standard is a conceptual architectural service, independent of administrative and implementation divisions.

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