

**SLOVENSKI STANDARD**  
**SIST EN IEC 61158-3-19:2019****01-november-2019****Nadomešča:****SIST EN 61158-3-19:2015**

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**Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 3-19. del:  
Definicija opravil na podatkovni ravni - Elementi tipa 19 (IEC 61158-3-19:2019)**Industrial communication networks - Fieldbus specifications - Part 3-19: Data-link layer  
service definition - Type 19 elements (IEC 61158-3-19:2019)Industrielle Kommunikationsnetze - Feldbusse - Teil 3-19: Dienstfestlegungen des Data  
Link Layer (Sicherheitsschicht) - Typ 19-Elemente (IEC 61158-3-19:2019)Réseaux de communication industriels - Spécifications des bus de terrain - Partie 3-19:  
Définition des services de la couche liaison de données - Éléments de type 19 (IEC  
61158-3-19:2019)**Ta slovenski standard je istoveten z: EN IEC 61158-3-19:2019****ICS:**

25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
35.100.20	Podatkovni povezovalni sloj	Data link layer
35.110	Omreževanje	Networking

**SIST EN IEC 61158-3-19:2019****en,fr,de**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN IEC 61158-3-19**

June 2019

ICS 25.040.40; 35.100.20; 35.110

Supersedes EN 61158-3-19:2014

English Version

**Industrial communication networks - Fieldbus specifications -  
Part 3-19: Data-link layer service definition - Type 19 elements  
(IEC 61158-3-19:2019)**

Réseaux de communication industriels - Spécifications des  
bus de terrain - Partie 3-19: Définition des services de la  
couche liaison de données - Eléments de type 19  
(IEC 61158-3-19:2019)

Industrielle Kommunikationsnetze - Feldbusse - Teil 3-19:  
Dienstfestlegungen des Data Link Layer  
(Sicherheitsschicht) - Typ 19-Elemente  
(IEC 61158-3-19:2019)

This European Standard was approved by CENELEC on 2019-05-29. 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.

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European Committee for Electrotechnical Standardization  
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Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN IEC 61158-3-19:2019 (E)****European foreword**

The text of document 65C/945/FDIS, future edition 4 of IEC 61158-3-19, 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 IEC 61158-3-19:2019.

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) 2020-02-29
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-05-29

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The text of the International Standard IEC 61158-3-19:2019 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 series	NOTE Harmonized as EN 61131 series
IEC 61158-1	NOTE Harmonized as EN 61158-1
IEC 61158-4-19	NOTE Harmonized as EN 61158-4-19
IEC 61158-5-19	NOTE Harmonized as EN 61158-5-19
IEC 61158-6-19	NOTE Harmonized as EN 61158-6-19
IEC 61784-1	NOTE Harmonized as EN 61784-1
IEC 61784-2	NOTE Harmonized as EN 61784-2
IEC 61800 series	NOTE Harmonized as EN 61800 series
IEC 61800-7 series	NOTE Harmonized as EN 61800-7 series

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC 7498-1	-	Information technology - Open Systems-Interconnection - Basic reference model: The basic model		-
ISO/IEC 7498-3	-	Information technology - Open Systems-Interconnection - Basic Reference Model: Naming and addressing		-
ISO/IEC 10731	-	Information technology - Open Systems-Interconnection - Basic Reference Model - Conventions for the definition of OSI services		-

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IEC 61158-3-19

Edition 4.0 2019-04

# INTERNATIONAL STANDARD

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**Industrial communication networks – Fieldbus specifications –  
Part 3-19: Data-link layer service definition – Type 19 elements**

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INTERNATIONAL  
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COMMISSION

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ICS 25.040.40; 35.100.20; 35.110

ISBN 978-2-8322-6789-9

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**INDUSTRIAL COMMUNICATION NETWORKS –  
FIELD BUS SPECIFICATIONS –****Part 3-19: Data-link layer service definition –  
Type 19 elements**

## FOREWORD

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NOTE Combinations of protocol types are specified in IEC 61784-1 and IEC 61784-2.

International Standard IEC 61158-3-19 has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial-process measurement, control and automation.

This fourth edition cancels and replaces the third edition published in 2014. This edition constitutes a technical revision.

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

- improving the hotplug and redundancy features;
- improving the phase switching and the error handling;
- editorial improvements.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
65C/945/FDIS	65C/954/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 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

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A bilingual version of this publication may be issued at a later date.

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## INTRODUCTION

This document 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 61158-1.

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 data-link layer service defined in this document is a conceptual architectural service, independent of administrative and implementation divisions.

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