

SLOVENSKI STANDARD

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SIST EN 61158-6-5:2008

Industrijska komunikacijska omrežja - Specifikacije za procesna vodila - 6-5. del: Specifikacija protokola na aplikacijski ravni - Elementi tipa 5 (IEC 61158-6-5:2014)

Industrial communication networks - Fieldbus specifications - Part 6-5: Application layer
protocol specification - Type 5 elements (IEC 61158-6-5:2014)

Industrielle Kommunikationsnetze - Feldbusse - Teil 6-5: Protokollspezifikation des
Application Layer (Anwendungsschicht) - Typ 5-Elemente (IEC 61158-6-5:2014)

Réseaux de communication industriels - Spécifications des bus de terrain - Partie 6-5:
Spécification du protocole de la couche application - Éléments de type 5 (CEI 61158-6-
5:2014)

Ta slovenski standard je istoveten z: EN 61158-6-5:2014

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35.100.70	Uporabniški sloj	Application layer
35.110	Omreževanje	Networking

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Industrial communication networks - Fieldbus specifications -
Part 6-5: Application layer protocol specification - Type 5
elements
(IEC 61158-6-5:2014)

Réseaux de communication industriels - Spécifications des
bus de terrain - Partie 6-5: Spécification du protocole de la
couche application - Éléments de type 5
(CEI 61158-6-5:2014)

Industrielle Kommunikationsnetze - Feldbusse - Teil 6-5:
Protokollspezifikation des Application Layer
(Anwendungsschicht) - Typ 5-Elemente
(IEC 61158-6-5:2014)

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

The text of document 65C/764/FDIS, future edition 2 of IEC 61158-6-5, 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 61158-6-5:2014.

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) 2015-06-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-09-23

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Endorsement notice

The text of the International Standard IEC 61158-6-5:2014 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 61158-3-1	NOTE	Harmonized as EN 61158-3-1.
IEC 61158-4-1	NOTE	Harmonized as EN 61158-4-1.
IEC 61784-1	NOTE	Harmonized as EN 61784-1.
IEC 61784-2	NOTE	Harmonized as EN 61784-2.

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 1 When 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61158-1	-	Industrial communication networks - Fieldbus specifications - Part 1: Overview and guidance for the IEC 61158 and IEC 61784 series	EN 61158-1	-
IEC 61158-5-5	-	Industrial communication networks - Fieldbus specifications - Part 5-5: Application layer service definition - Type 5 elements	EN 61158-5-5	-
ISO/IEC 7498-1	-	Information technology - Open Systems Interconnection - Basic Reference Model: The Basic Model	-	-
ISO/IEC 8825	1990	Information technology - Open Systems Interconnection - Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1)	-	-
ISO/IEC 9545	-	Information technology - Open Systems Interconnection - Application layer structure	-	-
ISO/IEC 10731	-	Information technology - Open Systems Interconnection - Basic Reference Model - Conventions for the definition of OSI services	-	-
IETF RFC 791	-	Internet Protocol	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**INDUSTRIAL COMMUNICATION NETWORKS –
 FIELDBUS SPECIFICATIONS –**
**Part 6-5: Application layer protocol specification –
 Type 5 elements**

FOREWORD

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

International Standard IEC 61158-6-5 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 change with respect to the previous edition is listed below:

- Add support for message padding
- Clarified encoding rules
- Clarified open session service
- Time synchronization now present in annunciation message
- Additional redundancy options in annunciation message

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

FDIS	Report on voting
65C/764/FDIS	65C/774/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 the parts of the IEC 61158 series, 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
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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 61158-1.

The application protocol provides the application service by making use of the services available from the data-link or other immediately lower layer. The primary aim of this standard is to provide a set of rules for communication expressed in terms of the procedures to be carried out by peer application entities (AEs) at the time of communication. These rules for communication are intended to provide a sound basis for development in order to serve a variety of purposes:

- as a guide for implementors and designers;
- for use in the testing and procurement of equipment;
- as part of an agreement for the admittance of systems into the open systems environment;
- as a refinement to the understanding of time-critical communications within OSI.

This standard is concerned, in particular, with the communication and interworking of sensors, effectors and other automation devices. By using this standard together with other standards positioned within the OSI or fieldbus reference models, otherwise incompatible systems may work together in any combination.

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