

SLOVENSKI STANDARD

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Industrijska komunikacijska omrežja - Profili - 3. del: Funkcijska varnost procesnih vodil - Splošna pravila in definicije profilov (IEC 61784-3:2021)

Industrial communication networks - Profiles - Part 3: Functional safety fieldbuses - General rules and profile definitions (IEC 61784-3:2021)

Industrielle Kommunikationsnetze - Profile - Teil 3: Funktional sichere Übertragung bei Feldbussen - Allgemeine Regeln und Festlegungen für Profile (IEC 61784-3:2021)

Réseaux de communication industriels - Profils - Partie 3: Bus de terrain de sécurité fonctionnelle - Règles générales et définitions de profils (IEC 61784-3:2021)

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March 2021

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and corrigenda (if any)

English Version

**Industrial communication networks - Profiles - Part 3: Functional
safety fieldbuses - General rules and profile definitions
(IEC 61784-3:2021)**

Réseaux de communication industriels - Profils - Partie 3:
Bus de terrain de sécurité fonctionnelle - Règles générales
et définitions de profils
(IEC 61784-3:2021)

Industrielle Kommunikationsnetze - Profile - Teil 3:
Funktional sichere Übertragung bei Feldbussen -
Allgemeine Regeln und Festlegungen für Profile
(IEC 61784-3:2021)

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European Committee for Electrotechnical Standardization
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EN IEC 61784-3:2021 (E)**European foreword**

The text of document 65C/1067/FDIS, future edition 4 of IEC 61784-3, 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 61784-3:2021.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-03-23

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

IEC 61000-1-2	NOTE	Harmonized as EN 61000-1-2
IEC 61131-6	NOTE	Harmonized as EN 61131-6
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IEC 61158-5-13	NOTE	Harmonized as EN 61158-5-13
IEC 61158-5-14	NOTE	Harmonized as EN 61158-5-14
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IEC 61158-6-8	NOTE	Harmonized as EN 61158-6-8
IEC 61158-6-9	NOTE	Harmonized as EN 61158-6-9
IEC 61158-6-10	NOTE	Harmonized as EN IEC 61158-6-10
IEC 61158-6-12	NOTE	Harmonized as EN IEC 61158-6-12
IEC 61158-6-13	NOTE	Harmonized as EN 61158-6-13
IEC 61158-6-14	NOTE	Harmonized as EN 61158-6-14
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IEC 61158-6-19	NOTE	Harmonized as EN IEC 61158-6-19
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IEC 62061:2005/A1:2012	NOTE	Harmonized as EN 62061:2005/A1:2013 (not modified)
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ISO 13849-1:2015	NOTE	Harmonized as EN ISO 13849-1:2015 (not modified)

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61000-6-7	-	Electromagnetic compatibility (EMC) - Part 6-7: Generic standards - Immunity requirements for equipment intended to perform functions in a safety-related system (functional safety) in industrial locations	EN 61000-6-7	-
IEC 61010-2-201	-	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-201: Particular requirements for control equipment	EN IEC 61010-2-201	-
IEC 61158	series	Industrial communication networks - Fieldbus specifications	EN IEC 61158	series
IEC 61326-3-1	-	Electrical equipment for measurement, control and laboratory use - EMC requirements – Part 3-1: Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) – General industrial applications	EN 61326-3-1	-
IEC 61326-3-2	-	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 3-2: Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) - Industrial applications with specified electromagnetic environment	EN IEC 61326-3-2	-
IEC 61508	series	Functional safety of electrical /electronic/programmable electronic safety-related systems	EN 61508	series

EN IEC 61784-3:2021 (E)

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IEC 61508-1	2010	Functional safety of electrical /electronic/programmable electronic safety-related systems - Part 1: General requirements	EN 61508-1	2010
IEC 61508-2	-	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems	EN 61508-2	-
IEC 61784-1	-	Industrial communication networks - Profiles Part 1: Fieldbus profiles	EN IEC 61784-1	-
IEC 61784-2	-	Industrial communication networks - Profiles - Part 2: Additional fieldbus profiles for real-time networks based on ISO/IEC/IEEE 8802-3	EN IEC 61784-2	-
IEC 61784-3	series	Industrial communication networks - Profiles - Part 3: Functional safety fieldbuses	-	-
IEC 61784-3-1	-	Industrial communication networks - Profiles - Part 3-1: Functional safety fieldbuses - Additional specifications for CPF 1	EN 61784-3-1	-
IEC 61784-3-2	-	Industrial communication networks - Profiles - Part 3-2: Functional safety fieldbuses - Additional specifications for CPF 2	EN 61784-3-2	-
IEC 61784-3-3	-	Industrial communication networks - Profiles - Part 3-3: Functional safety fieldbuses - Additional specifications for CPF 3	EN 61784-3-3	-
IEC 61784-3-6	-	Industrial communication networks - Profiles - Part 3-6: Functional safety fieldbuses - Additional specifications for CPF 6	EN 61784-3-6	-
IEC 61784-3-8	-	Industrial communication networks - Profiles - Part 3-8: Functional safety fieldbuses - Additional specifications for CPF 8	EN 61784-3-8	-
IEC 61784-3-12	-	Industrial communication networks - Profiles - Part 3-12: Functional safety fieldbuses - Additional specifications for CPF 12	EN 61784-3-12	-
IEC 61784-3-13	-	Industrial communication networks - Profiles - Part 3-13: Functional safety fieldbuses - Additional specifications for CPF 13	EN 61784-3-13	-
IEC 61784-3-14	-	Industrial communication networks - Profiles - Part 3-14: Functional safety fieldbuses - Additional specifications for CPF 14	EN 61784-3-14	-

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IEC 61784-3-17	-	Industrial communication networks - Profiles - Part 3-17: Functional safety fieldbuses - Additional specifications for CPF 17	EN 61784-3-17	-
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IEC 61784-5	series	Industrial communication networks - Profiles - Part 5: Installation of fieldbuses	EN 61784-5	series
IEC 61918	2018	Industrial communication networks - Installation of communication networks in industrial premises	EN IEC 61918	2018
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IEC 62443	series	Security for industrial process measurement and control - Network and system security	-	-

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**Industrial communication networks – Profiles –
Part 3: Functional safety fieldbuses – General rules and profile definitions**

**Réseaux de communication industriels – Profils –
Partie 3: Bus de terrain de sécurité fonctionnelle – Règles générales et
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CONTENTS

FOREWORD.....	7
0 Introduction	9
0.1 General.....	9
0.2 Use of extended assessment methods in Edition 4.....	11
0.3 Patent declaration.....	11
1 Scope	12
2 Normative references	12
3 Terms, definitions, symbols, abbreviated terms and conventions	14
3.1 Terms and definitions.....	14
3.2 Symbols and abbreviated terms	21
3.2.1 Abbreviated terms	21
3.2.2 Symbols	22
4 Conformance	22
5 Basics of safety-related fieldbus systems	23
5.1 Safety function decomposition	23
5.2 Communication system	23
5.2.1 General	23
5.2.2 IEC 61158 fieldbuses	24
5.2.3 Communication channel types	24
5.2.4 Safety function response time	25
5.3 Communication errors	25
5.3.1 General	25
5.3.2 Corruption	25
5.3.3 Unintended repetition	26
5.3.4 Incorrect sequence	26
5.3.5 Loss	26
5.3.6 Unacceptable delay	26
5.3.7 Insertion	26
5.3.8 Masquerade.....	26
5.3.9 Addressing	26
5.4 Deterministic remedial measures	27
5.4.1 General	27
5.4.2 Sequence number.....	27
5.4.3 Time stamp.....	27
5.4.4 Time expectation	27
5.4.5 Connection authentication	27
5.4.6 Feedback message.....	27
5.4.7 Data integrity assurance	27
5.4.8 Redundancy with cross checking	28
5.4.9 Different data integrity assurance systems.....	28
5.5 Typical relationships between errors and safety measures	28
5.6 Communication phases	29
5.7 FSCP implementation aspects	30
5.8 Models for estimation of the total residual error rate	30
5.8.1 Applicability	30
5.8.2 General models for black channel communications	31

5.8.3	Identification of generic safety properties.....	31
5.8.4	Assumptions for residual error rate calculations.....	32
5.8.5	Residual error rates	33
5.8.6	Data integrity	35
5.8.7	Authenticity.....	36
5.8.8	Timeliness	38
5.8.9	Masquerade.....	41
5.8.10	Calculation of the total residual error rates	41
5.8.11	Total residual error rate and SIL	43
5.8.12	Configuration and parameterization for an FSCP	43
5.9	Relationship between functional safety and security	45
5.10	Boundary conditions and constraints.....	45
5.10.1	Electrical safety	45
5.10.2	Electromagnetic compatibility (EMC)	46
5.11	Installation guidelines	46
5.12	Safety manual.....	46
5.13	Safety policy	46
6	Communication Profile Family 1 (FOUNDATION™ Fieldbus) – Profiles for functional safety	47
7	Communication Profile Family 2 (CIP™) and Family 16 (SERCOS®) – Profiles for functional safety	47
8	Communication Profile Family 3 (PROFIBUS™, PROFINET™) – Profiles for functional safety	48
9	Communication Profile Family 6 (INTERBUS®) – Profiles for functional safety	48
10	Communication Profile Family 8 (CC-Link™) – Profiles for functional safety	49
10.1	Functional Safety Communication Profile 8/1	49
10.2	Functional Safety Communication Profile 8/2	49
11	Communication Profile Family 12 (EtherCAT™) – Profiles for functional safety.....	49
12	Communication Profile Family 13 (Ethernet POWERLINK™) – Profiles for functional safety	50
13	Communication Profile Family 14 (EPA®) – Profiles for functional safety.....	50
14	Communication Profile Family 17 (RAPIEnet™) – Profiles for functional safety.....	50
15	Communication Profile Family 18 (SafetyNET p™ Fieldbus) – Profiles for functional safety	51
Annex A (informative)	Example functional safety communication models	52
A.1	General.....	52
A.2	Model A (single message, channel and FAL, redundant SCLs).....	52
A.3	Model B (full redundancy)	52
A.4	Model C (redundant messages, FALs and SCLs, single channel)	53
A.5	Model D (redundant messages and SCLs, single channel and FAL)	53
Annex B (normative)	Safety communication channel model using CRC-based error checking	55
B.1	Overview.....	55
B.2	Channel model for calculations	55
B.3	Bit error probability P_e	56
B.4	Cyclic redundancy checking	57
B.4.1	General	57
B.4.2	Requirements for methods to calculate R_{CRC}	57
Annex C (informative)	Structure of technology-specific parts.....	59

Annex D (informative) Assessment guideline	62
D.1 Overview.....	62
D.2 Channel types.....	62
D.2.1 General	62
D.2.2 Black channel	62
D.2.3 White channel.....	62
D.3 Data integrity considerations for white channel approaches	63
D.3.1 General	63
D.3.2 Models B and C	63
D.3.3 Models A and D	64
D.4 Verification of safety measures	64
D.4.1 General	64
D.4.2 Implementation.....	65
D.4.3 Default safety action	65
D.4.4 Safe state	65
D.4.5 Transmission errors	65
D.4.6 Safety reaction and response times	65
D.4.7 Combination of measures	65
D.4.8 Absence of interference	66
D.4.9 Additional fault causes (white channel).....	66
D.4.10 Reference test beds and operational conditions	66
D.4.11 Conformance tester.....	66
Annex E (informative) Examples of implicit vs. explicit FSCP safety measures.....	67
E.1 General.....	67
E.2 Example fieldbus message with safety PDUs.....	67
E.3 Model with completely explicit safety measures.....	67
E.4 Model with explicit A-code and implicit T-code safety measures.....	68
E.5 Model with explicit T-code and implicit A-code safety measures.....	68
E.6 Model with split explicit and implicit safety measures	69
E.7 Model with completely implicit safety measures	70
E.8 Addition to Annex B – impact of implicit codes on properness	70
Annex F (informative) Legacy models for estimation of the total residual error rate	71
F.1 General.....	71
F.2 Calculation of the residual error rate	71
F.3 Total residual error rate and SIL	73
Annex G (informative) Implicit data safety mechanisms for IEC 61784-3 functional safety communication profiles (FSCPs).....	74
G.1 Overview.....	74
G.2 Basic principles.....	74
G.3 Problem statement: constant values for implicit data	75
G.4 RP for FSCPs with random, uniformly distributed err_{impl}	78
G.4.1 General	78
G.4.2 Uniform distribution within the interval $[0; 2^i - 1]$, $i \geq r$	79
G.4.3 Uniform distribution in the interval $[1; 2^r - 1]$, $i = r$	81
G.5 General case	83
G.6 Calculation of P_{ID}	83
Annex H (informative) Residual error probability for example CRC codes (tables for verification of calculation methods)	85
H.1 Overview.....	85

H.2	Example of a 32-bit CRC.....	85
H.3	Example of a 16-bit CRC.....	90
H.4	Conclusion.....	94
	Bibliography.....	96
	Figure 1 – Relationships of IEC 61784-3 with other standards (machinery).....	9
	Figure 2 – Relationships of IEC 61784-3 with other standards (process).....	10
	Figure 3 – Transitions from Ed. 2 to Ed. 4 and future Ed. 5 assessment methods	11
	Figure 4 – Safety communication as a part of a safety function	23
	Figure 5 – Example model of a functional safety communication system	24
	Figure 6 – Example of safety function response time components.....	25
	Figure 7 – Conceptual FSCP protocol model.....	30
	Figure 8 – FSCP implementation aspects.....	30
	Figure 9 – Black channel from an FSCP perspective	31
	Figure 10 – Model for authentication considerations	36
	Figure 11 – Fieldbus and internal address errors	37
	Figure 12 – Example of slowly increasing message latency	39
	Figure 13 – Example of an active network element failure.....	40
	Figure 14 – Example application 1 (m = 4).....	42
	Figure 15 – Example application 2 (m = 2).....	42
	Figure 16 – Example of configuration and parameterization procedures for FSCP	44
	Figure A.1 – Model A	52
	Figure A.2 – Model B	53
	Figure A.3 – Model C	53
	Figure A.4 – Model D	54
	Figure B.1 – Binary symmetric channel (BSC).....	55
	Figure B.2 – Block codes for error detection	56
	Figure B.3 – Example of a block with a message part and a CRC signature	57
	Figure B.4 – Proper and improper CRC polynomials	58
	Figure D.1 – Basic Markov model	64
	Figure E.1 – Example safety PDUs embedded in a fieldbus message	67
	Figure E.2 – Model with completely explicit safety measures	67
	Figure E.3 – Model with explicit A-code and implicit T-code safety measures.....	68
	Figure E.4 – Model with explicit T-code and implicit A-code safety measures.....	69
	Figure E.5 – Model with split explicit and implicit safety measures	69
	Figure E.6 – Model with completely implicit safety measures	70
	Figure F.1 – Example application 1 (m = 4).....	72
	Figure F.2 – Example application 2 (m = 2).....	73
	Figure G.1 – FSCP with implicit transmission of authenticity and/or timeliness codes	75
	Figure G.2 – Example of an incorrect transmission with multiple error causes.....	76
	Figure G.3 – Impact of errors in implicit data on the residual error probability	77
	Figure H.1 – Residual error probabilities (example of a 32-bit CRC – result 1)	87
	Figure H.2 – Residual error probabilities (example of a 32-bit CRC – result 2)	87

Figure H.3 – Residual error probabilities (example of a 32-bit CRC – result 3)	88
Figure H.4 – Residual error probabilities (example of a 32-bit CRC – result 4)	88
Figure H.5 – Residual error probabilities (example of a 32-bit CRC – result 5)	89
Figure H.6 – Residual error probabilities (example of a 32-bit CRC – result 6)	89
Figure H.7 – Residual error probabilities (example of a 16-bit CRC – result 1)	92
Figure H.8 – Residual error probabilities (example of a 16-bit CRC – result 2)	92
Figure H.9 – Residual error probabilities (example of a 16-bit CRC – result 3)	93
Figure H.10 – Residual error probabilities (example of a 16-bit CRC – result 4)	93
Figure H.11 – Residual error probabilities (example of a 16-bit CRC – result 5)	94
Figure H.12 – Example 1 of improper polynomial	94
Figure H.13 – Example 2 of improper polynomial	95
Table 1 – Overview of the effectiveness of the various measures on the possible errors	29
Table 2 – Typical relationship of residual error rate to SIL	43
Table 3 – Typical relationship of residual error on demand to SIL	43
Table 4 – Overview of profile identifier usable for FSCP 6/7	48
Table B.1 – Example dependency $d_{\min}$ and block bit length n	56
Table C.1 – Common subclause structure for technology-specific parts	59
Table F.1 – Definition of items used for calculation of the residual error rates	72
Table F.2 – Typical relationship of residual error rate to SIL	73
Table F.3 – Typical relationship of residual error on demand to SIL	73
Table H.1 – Residual error probabilities (R_{CRC1}) for example CRC32 polynomial	86
Table H.2 – Residual error probabilities (R_{CRC2}) for example CRC16 polynomial	91

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

- Contents of previous Annex F were corrected based on feedback from peer review and subsequent analysis (in particular deletion of RP_U for data integrity, reduction of the Equation for RR_A , and clarifications on the values of RP_I and R_T).
- Additional assumptions for residual error rate calculations, clarification of assumption a).