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Industrijska komunikacijska omrežja - Profili - 3-3. del: Funkciijska varnost procesnih vodil - Dodatne specifikacije za CPF 3

Industrial communication networks - Profiles - Part 3-3: Functional safety fieldbuses - Additional specifications for CPF 3

Industrielle Kommunikationsnetze - Profile - Teil 3-3: Funktional sichere Übertragung bei Feldbussen - Zusätzliche Festlegungen für die Kommunikationsprofilfamilie 3

Réseaux de communication industriels - Profils - Partie 3-3: Bus de terrain de sécurité fonctionnelle - Spécifications supplémentaires pour CPF 3

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Industrial communication networks - Profiles - Part 3-3: Functional safety fieldbuses - Additional specifications for CPF 3 (IEC 61784-3-3:2021)

Réseaux de communication industriels - Profils - Partie 3-3: Bus de terrain de sécurité fonctionnelle - Spécifications supplémentaires pour CPF 3 (IEC 61784-3-3:2021)

Industrielle Kommunikationsnetze - Profile - Teil 3-3: Funktional sichere Übertragung bei Feldbussen - Zusätzliche Festlegungen für die Kommunikationsprofilfamilie 3 (IEC 61784-3-3:2021)

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European foreword

The text of document 65C/1083/FDIS, future edition 4 of IEC 61784-3-3, 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 61784-3-3:2021.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-06-09

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

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IEC 60870-5-1	NOTE	Harmonized as EN 60870-5-1
IEC 61000-1-2	NOTE	Harmonized as EN 61000-1-2
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IEC 61158 (series)	NOTE	Harmonized as EN 61158 (series)
IEC 61496 (series)	NOTE	Harmonized as EN IEC 61496 (series)
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IEC 61508-4:2010	NOTE	Harmonized as EN 61508-4:2010 (not modified)
IEC 61508-5:2010	NOTE	Harmonized as EN 61508-5:2010 (not modified)
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IEC 61158-3-3	NOTE	Harmonized as EN 61158-3-3
IEC 61158-4-3	NOTE	Harmonized as EN IEC 61158-4-3
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IEC 61784-5 (series)	NOTE	Harmonized as EN IEC 61784-5 (series)
IEC 61800-5-2	NOTE	Harmonized as EN 61800-5-2
IEC 61804 (series)	NOTE	Harmonized as EN IEC 61804 (series)
ISO 10218-1	NOTE	Harmonized as EN ISO 10218-1
ISO 13849 (series)	NOTE	Harmonized as EN ISO 13849 (series)

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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.

Publication	Year	Title	EN/HD	Year
IEC 60204-1	-	Safety of machinery - Electrical equipment of machines - Part 1: General requirements	EN 60204-1	-
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	2017	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-201: Particular requirements for control equipment	EN IEC 61010-2-201	2018
IEC 61158-2	-	Industrial communication networks - Fieldbus specifications - Part 2: Physical layer specification and service definition	EN 61158-2	-
IEC 61158-5-3	-	Industrial communication networks - Fieldbus specifications - Part 5-3: Application layer service definition - Type 3 elements	EN 61158-5-3	-
IEC 61158-5-10	-	Industrial communication networks - Fieldbus specifications - Part 5-10: Application layer service definition - Type 10 elements	EN IEC 61158-5-10	-
IEC 61158-6-3	-	Industrial communication networks - Fieldbus specifications - Part 6-3: Application layer protocol specification - Type 3 elements	EN IEC 61158-6-3	-
IEC 61158-6-10	-	Industrial communication networks - Fieldbus specifications - Part 6-10: Application layer protocol specification - Type 10 elements	EN IEC 61158-6-10	-
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	-

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Publication	Year	Title	EN/HD	Year
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
IEC 61508-2	-	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems (see Functional Safety and IEC 61508	EN 61508-2	-
IEC 61511	series	Functional safety - Safety instrumented systems for the process industry sector	EN 61511	series
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	2021	Industrial communication networks - Profiles - Part 3: Functional safety fieldbuses - General rules and profile definitions	EN IEC 61784-3	2021
IEC 61784-5-3	-	Industrial communication networks – Profiles – Part 5-3: Installation of fieldbuses – Installation profiles for CPF 3	EN IEC 61784-5-3	-
IEC 61918	2018	Industrial communication networks - Installation of communication networks in industrial premises	EN IEC 61918	2018
IEC 62061	-	Safety of machinery - Functional safety of safety-related control systems	EN IEC 62061	-
IEC 62280	2014	Railway applications - Communication, signalling and processing systems - Safety related communication in transmission systems	-	-
IEC 62443	series	Security for industrial automation and control systems	EN IEC 62443	series
ISO 13849-1	2015	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design	EN ISO 13849-1	2015
ISO 13849-2	2012	Safety of machinery - Safety-related parts of control systems - Part 2: Validation	EN ISO 13849-2	2012

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

- editorial changes regarding timeliness, transformation of comments in the chart into instructions;
- use abbreviations of PROFINET;
- information added about checks and safety manual for PROFIsafe Address Type 1 and 2;
- information added about PFDavg, support of automatic test, add diagnosis messages;