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**Industrijska komunikacijska omrežja - Profili – Smernica za ocenjevanje varnostnih naprav, ki uporabljajo komunikacijske profile funkcionalne varnosti po IEC 61784-3 (IEC/TR 62685:2010)**

Industrial communication networks - Profiles - Assessment guideline for safety devices using IEC 61784-3 functional safety communication profiles (FSCPs) (IEC/TR 62685:2010)

Industrielle Kommunikationsnetze - Profile - Beurteilungsleitfaden für Sicherheitsgeräte, die funktional sichere Übertragung nach den Profilen der IEC 61784-3 verwenden (IEC/TR 62685:2010)

Réseaux de communications industrielles - Profils - Recommandations d'évaluation pour les équipements de sécurité utilisant les profils de sécurité de communication (FSCP) de la CEI 61784-3 (CEI/TR 62685:2010)

**Ta slovenski standard je istoveten z: CLC/TR 62685:2011**

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**ICS:**

25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
35.100.05	Večslojne uporabniške rešitve	Multilayer applications

**SIST-TP CLC/TR 62685:2011****en**

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TECHNICAL REPORT  
RAPPORT TECHNIQUE  
TECHNISCHER BERICHT

**CLC/TR 62685**

October 2011

ICS 13.160; 35.100.05

English version

**Industrial communication networks -  
Profiles -  
Assessment guideline for safety devices using IEC 61784-3 functional  
safety communication profiles (FSCPs)  
(IEC/TR 62685:2010)**

Réseaux de communications  
industrielles -  
Profils -  
Recommandations d'évaluation pour les  
équipements de sécurité utilisant les  
profils de sécurité de communication  
(FSCP) de la CEI 61784-3  
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Industrielle Kommunikationsnetze -  
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This Technical Report was approved by CENELEC on 2011-10-03.

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**CENELEC**

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Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

This document (CLC/TR 62685:2011) consists of the text of IEC/TR 62685:2010 prepared by SC 65C, "Industrial networks", of IEC TC 65, "Industrial-process measurement, control and automation".

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The text of the International Standard IEC/TR 62685:2010 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:

- |      |                  |      |                                |
|------|------------------|------|--------------------------------|
| [2]  | IEC 60204-1      | NOTE | Harmonized as EN 60204-1.      |
| [3]  | IEC 60947-5-1    | NOTE | Harmonized as EN 60947-5-1.    |
| [4]  | IEC 61000-4-2    | NOTE | Harmonized as EN 61000-4-2.    |
| [5]  | IEC 61000-4-4    | NOTE | Harmonized as EN 61000-4-4.    |
| [6]  | IEC 61000-4-5    | NOTE | Harmonized as EN 61000-4-5.    |
| [7]  | IEC 61000-4-8    | NOTE | Harmonized as EN 61000-4-8.    |
| [8]  | IEC 61000-4-11   | NOTE | Harmonized as EN 61000-4-11.   |
| [9]  | IEC 61000-4-16   | NOTE | Harmonized as EN 61000-4-16.   |
| [10] | IEC 61000-4-29   | NOTE | Harmonized as EN 61000-4-29.   |
| [12] | IEC 61508-1:2010 | NOTE | Harmonized as EN 61508-1:2010. |
| [13] | IEC 61508-4:2010 | NOTE | Harmonized as EN 61508-4:2010. |
| [14] | IEC 61508-5:2010 | NOTE | Harmonized as EN 61508-5:2010. |
| [15] | IEC 61508-7:2010 | NOTE | Harmonized as EN 61508-7:2010. |
| [16] | IEC 61158 series | NOTE | Harmonized in EN 61158 series. |
| [17] | IEC 61784-1      | NOTE | Harmonized as EN 61784-1.      |
| [18] | IEC 61784-2      | NOTE | Harmonized as EN 61784-2.      |
| [19] | IEC 61800-3      | NOTE | Harmonized as EN 61800-3.      |
| [20] | IEC 61800-5-2    | NOTE | Harmonized as EN 61800-5-2.    |
| [21] | IEC 61918        | NOTE | Harmonized as EN 61918.        |

## Annex ZA (normative)

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

The following referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2	Series	Environmental testing - Part 2: Tests	EN 60068-2	Series
IEC 60079	Series	Explosive atmospheres	EN 60079	Series
IEC 60300-3-2	-	Dependability management - Part 3-2: Application guide - Collection of dependability data from the field	EN 60300-3-2	-
IEC 60721-3	Series	Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities	EN 60721-3	Series
IEC 60721-3-1	-	Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 1: Storage	EN 60721-3-1	-
IEC 60721-3-2	-	Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 2: Transportation	EN 60721-3-2	-
IEC 60721-3-3	-	Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 3: Stationary use at weatherprotected locations	EN 60721-3-3	-
IEC/TS 61000-1-2	-	Electromagnetic compatibility (EMC) - Part 1-2: General - Methodology for the achievement of functional safety of electrical and electronic systems including equipment with regard to electromagnetic phenomena	-	-
IEC 61000-4-3	-	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3	-
IEC 61000-4-6	-	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	EN 61000-4-6	-
IEC 61000-6-2	-	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments	EN 61000-6-2	-
IEC 61010	Series	Safety requirements for electrical equipment for measurement, control and laboratory use	EN 61010	Series

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61131-2	2007	Programmable controllers - Part 2: Equipment requirements and tests	EN 61131-2	2007
IEC 61241	Series	Electrical apparatus for use in the presence of combustible dust	EN 61241	Series
IEC 61326	Series	Electrical equipment for measurement, control and laboratory use - EMC requirements	EN 61326	Series
IEC 61326-1	-	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	EN 61326-1	-
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 61326-3-2	-
IEC 61496-1 + A 1	-	Safety of machinery - Electro-sensitive protective equipment Part 1: General requirements and tests	EN 61496-1 + A 1	-
IEC 61508	Series	Functional safety of electrical/electronic/programmable electronic safety-related systems	EN 61508	Series
IEC 61508-2	2010	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems	EN 61508-2	2010
IEC 61508-3	2010	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 3: Software requirements	EN 61508-3	2010
IEC 61511	Series	Functional safety - Safety instrumented systems for the process industry sector	EN 61511	Series
IEC 61779	Series	Electrical apparatus for the detection and measurement of flammable gases	EN 61779	Series
IEC 61784-3	Series	Industrial communication networks - Profiles - Part 3: Functional safety fieldbuses - General rules and profile definitions	EN 61784-3	Series
IEC 61784-3	2010	Industrial communication networks - Profiles - Part 3: Functional safety fieldbuses - General rules and profile definitions	EN 61784-3	2010

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62013	Series	Caplights for use in mines susceptible to firedamp	EN 62013	Series
IEC 62061	-	Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems	EN 62061	-
IEC 62086-1	-	Electrical apparatus for explosive gas atmospheres - Electrical resistance trace heating - Part 1: General and testing requirements	EN 62086-1	-
ISO 13849-1	-	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design	EN ISO 13849-1	-

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# TECHNICAL REPORT



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**Industrial communication networks – Profiles –  
Assessment guideline for safety devices using IEC 61784-3 functional safety  
communication profiles (FSCPs)**

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ICS 13.160; 35.100.05

ISBN 978-2-88912-250-9

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**INDUSTRIAL COMMUNICATION NETWORKS –  
PROFILES –**
**Assessment guideline for safety devices using IEC 61784-3  
functional safety communication profiles (FSCPs)**

## FOREWORD

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