



BSI Standards Publication

Field Device Integration (FDI)®

Part 103-1: Profiles — PROFIBUS

National foreword

This British Standard is the UK implementation of EN IEC 62769-103-1:2023. It is identical to IEC 62769-103-1:2023. It supersedes BS EN IEC 62769-103-1:2020, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/65/5, Devices and integration in enterprise systems.

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Date	Text affected
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English Version

Field Device Integration (FDI)[®] - Part 103-1: Profiles -
PROFIBUS
(IEC 62769-103-1:2023)

Intégration des appareils de terrain (FDI)[®] - Partie 103-1:
Profils - PROFIBUS
(IEC 62769-103-1:2023)

Feldgeräteintegration (FDI) - Teil 103-1: Profile -
PROFIBUS
(IEC 62769-103-1:2023)

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

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

European foreword

The text of document 65E/862/CDV, future edition 3 of IEC 62769-103-1, prepared by SC 65E "Devices and integration in enterprise systems" 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 62769-103-1:2023.

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) 2024-02-22
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-05-22

This document supersedes EN IEC 62769-103-1:2020 and all of its amendments and corrigenda (if any).

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The text of the International Standard IEC 62769-103-1:2023 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 standard indicated:

IEC 62769 (series) NOTE Approved as EN IEC 62769 (series)

IEC 62769-8 NOTE Approved as EN IEC 62769-8

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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61784-1	-	Industrial communication networks - Profiles Part 1: Fieldbus profiles	EN IEC 61784-1	-
IEC 61804	series	Devices and integration in enterprise systems - Function blocks (FB) for process control and electronic device description language (EDDL)	EN IEC 61804	series
IEC 62541-100	2015	OPC Unified Architecture - Part 100: Device Interface	EN 62541-100	2015
IEC 62769-2	-	Field Device Integration (FDI®) - Part 2: Client	EN IEC 62769-2	-
IEC 62769-4	-	Field Device Integration (FDI®) - Part 4: FDI Packages	EN IEC 62769-4	-
IEC 62769-5	-	Field Device Integration (FDI®) - Part 5: FDI Information Model	EN IEC 62769-5	-
IEC 62769-7	-	Field Device Integration (FDI®) - Part 7: Communication Devices	EN IEC 62769-7	-
PI Order No.: 2.122	2008	Specification for PROFIBUS - Device Description and Device Integration - Volume 1: GSD, V5.1, July 2008: GSD	-	-

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FIELD DEVICE INTEGRATION (FDI®) –

Part 103-1: Profiles – PROFIBUS

FOREWORD

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IEC 62769-103-1 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation. It is an International Standard.

This third edition cancels and replaces the second edition published in 2020. This edition constitutes a technical revision.

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

- a) added DEVICE_ID to the ProfibusIdentificationType and namespace to Annex A and Annex B;
- b) added mapping from PB standard parameters to PA DIM.

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

Draft	Report on voting
65E/862/CDV	65E/919/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 62769 series, published under the general title *Field device integration (FDI®)*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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- replaced by a revised edition, or
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FIELD DEVICE INTEGRATION (FDI®) –

Part 103-1: Profiles – PROFIBUS

1 Scope

This part of IEC 62769 specifies an FDI^{®1} profile of IEC 62769 for IEC 61784-1_CP 3/1 (PROFIBUS DP)² and IEC 61784-1_CP3/2 (PROFIBUS PA).

2 Normative references

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.

IEC 61784-1, *Industrial communication networks – Profiles – Part 1: Fieldbus profiles*

IEC 61804 (all parts), *Devices and integration in enterprise systems – Function blocks (FB) for process control and electronic device description language (EDDL)*

IEC 62541-100:2015, *OPC Unified Architecture – Part 100: OPC UA for Devices*

IEC 62769-2, *Field device integration (FDI®) – Part 2: Client*

IEC 62769-4, *Field device integration (FDI®) – Part 4: FDI® Packages*

IEC 62769-5, *Field device integration (FDI®) – Part 5: Information Model*

IEC 62769-7, *Field device integration (FDI®) – Part 7: Communication devices*

PI Order No.: 2.122:2008, *Specification for PROFIBUS – Device Description and Device Integration – Volume 1: GSD, V5.1, July 2008: GSD*; available at <www.PROFIBUS.com>

3 Terms, definitions, abbreviated terms and acronyms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61784-1, IEC 61804 (all parts), IEC 62541-100, IEC 62769-4, IEC 62769-5, IEC 62769-7 and PI Order No.: 2.122:2008 apply.

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ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.2 Abbreviated terms and acronyms

For the purposes of this document, the following abbreviated terms and acronyms apply:

EDD	Electronic Device Description
EDDL	Electronic Device Description Language (see IEC 61804 (all parts))
GSD	General station description (see PI Order No.: 2.122:2008)
I&M	Identification and maintenance function
UUID	Universally unique identifier (see IEC 62769-8)
XML	Extensible markup language (see REC-xml-20081126)

4 Conventions

4.1 EDDL syntax

This document specifies content for the EDD component that is part of FDI® Communication Packages. The specification content using EDDL syntax uses the font `Courier New`. The EDDL syntax is used for method signature, variable, data structure and component declarations.

4.2 XML syntax

XML syntax examples use font `Courier New`. The XML syntax is used to describe XML document schema.

Example: `<xs:simpleType name="ExampleType">`

4.3 Capitalizations

The IEC 62769 series uses capitalized terms to emphasize that these terms have a FDI® specific meaning.

Some of these terms using an acronym as a prefix for example

- FDI® Client, or
- FDI® Server.

Some of these terms are compound terms such as:

- Communication Servers, or
- Profile Package.

Parameter names or attributes are concatenated to a single term, where the original terms start in this term with a capital letter such as:

- ProtocolSupportFile or
- ProtocolType.