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Field Device Integration (FDI)® – Part 103-1: Profiles – PROFIBUS



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CONTENTS

FOREWORD 4
1 Scope 6
2 Normative references 6
3 Terms, definitions, abbreviated terms and ~~conventions~~ acronyms 7
3.1 Terms and definitions 7
3.2 Abbreviated terms and acronyms 7
4 Conventions 7
4.1 EDDL syntax 7
4.2 XML syntax 7
4.3 Capitalizations 7
5 Profile for PROFIBUS 8
5.1 General 8
5.2 Catalog profile 8
5.2.1 Protocol support file 8
5.2.2 CommunicationProfile definition 9
5.2.3 Profile device 9
5.2.4 Protocol version information 9
5.3 Associating a Package with a device 10
5.3.1 Device type identification mapping 10
5.3.2 Device type revision mapping 11
5.4 Information Model mapping 12
5.4.1 ProtocolType definition 12
5.4.2 DeviceType mapping 13
5.4.3 FunctionalGroup identification definition 13
5.4.4 ConnectionPoint definition 14
5.4.5 Communication Device definition 16
5.4.6 Communication service provider definition 17
5.4.7 Network definition 18
5.5 Methods 18
5.5.1 Methods for FDI® Communication Servers 18
5.5.2 Methods for Gateways 21
Annex A (normative) Topology Scan result schema 28
A.1 General 28
A.2 Target Namespace 28
A.3 Network 28
A.4 ProfibusNetworkT 28
A.5 ProfibusConnectionPointT 29
A.6 ProfibusIdentificationT 29
A.7 ProfibusAddressT 30
Annex B (normative) Transfer service parameters 31
B.1 General 31
B.2 Target Namespace 31
B.3 sendData 31
B.4 ~~xsreceiveData~~ receiveData 31
B.5 ~~xsTransferSendDataT~~ TransferSendDataT 31
B.6 TransferResultDataT 32

B.7 OperationT 32
Annex C (informative) Mapping to PA DIM 33
C.1 General 33
C.2 Mapping table 33
Bibliography 34

Figure 1 – Version mapping problem 12

Table 1 – ProtocolSupportFile for FDI® Device Packages 8
Table 2 – ProtocolSupportFile for FDI® Communication Packages 9
Table 3 – PROFIBUS CommunicationProfile definition schema 9
Table 4 – Catalog values for profile devices 9
Table 5 – Version mapping examples 10
Table 6 – Device identification information mapping 11
Table 7 – Protocol type Profibus_DP 13
Table 8 – Protocol type Profibus_PA 13
Table 9 – DeviceType property mapping 13
Table 10 – PROFIBUS Device Types identification attributes 14
Table 11 – ConnectionPoint type for Profibus_DP 14
Table 12 – ConnectionPoint type for Profibus_PA 15
Table 13 – Method Connect arguments 19
Table 14 – Method Disconnect arguments 19
Table 15 – Method Transfer arguments 20
Table 16 – Method SetAddress arguments 21
Table 17 – Connect service arguments 22
Table 18 – Method Transfer arguments 24
Table 19 – Method SetAddress arguments 26
Table A.1 – Elements of ProfibusNetworkT 28
Table A.2 – Attributes of ProfibusConnectionPointT 29
Table A.3 – Elements of ProfibusConnectionPointT 29
Table A.4 – Attributes of ProfibusIdentificationT 30
Table B.1 – Attributes of TransferSendDataT 32
Table B.2 – Attributes of TransferResultDataT 32
Table C.1 – Mapping from PB standard parameters to PA DIM 33

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FIELD DEVICE INTEGRATION (FDI®) –

Part 103-1: Profiles – PROFIBUS

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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 62769-103-1:2020. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

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

- reconfirmed,
- withdrawn,
- 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)~~[1]~~.

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: ~~Device Interface~~ OPC UA for Devices*

IEC 62769-2[3], *Field device integration (FDI®) – Part 2: ~~FDI~~ Client*

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

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

IEC 62769-7[6], *Field Device Integration (FDI®) – Part 7: ~~FDI~~ 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>

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~~[3] Under preparation. Stage at the time of publication: IEC/RFDIS 62769-2:2020.~~

~~[4] Under preparation. Stage at the time of publication: IEC/RFDIS 62769-4:2020.~~

~~[5] Under preparation. Stage at the time of publication: IEC/RFDIS 62769-5:2020.~~

~~[6] Under preparation. Stage at the time of publication: IEC/RFDIS 62769-7:2020.~~

3 Terms, definitions, abbreviated terms and ~~conventions~~ 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.

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 ~~ISO/IEC 11578~~ 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.