American National Standard for Electricity Metering Data Exchange – The DLMS/COSEM Suite

Part 6-1: Object Identification System (OBIS)

ANSI C12/IEC 62056-6-1 ED4

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This American National Standard is an adoption of IEC 62056-6-1 Ed. 4 *Electricity Metering Data Exchange – The DLMS/ COSEM Suite Part 6-1: Object Identification System (OBIS).* Any reference in this standard to an IEC 62056 part is understood to mean a reference to the equivalent ANSI/IEC 62056 part, where it exists.

This standard contains all the original text from IEC 62056-6-1 Ed.4 without change.

Suggestions for the improvement of this standard are welcome and should be submitted to:

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CONTENTS

FOREWORD 9
INTRODUCTION 11
1 Scope 12
2 Normative references 12
3 Terms, definitions and abbreviated terms 13
3.1 Terms and definitions 13
3.2 Abbreviated terms 13
4 OBIS code structure 13
4.1 Value groups and their use 13
4.2 Manufacturer specific codes 14
4.3 Reserved ranges 14
4.4 Summary of rules for manufacturer, utility, consortia and country specific codes 15
4.5 Standard object codes 15
5 Value group definitions – overview 16
5.1 Value group A 16
5.2 Value group B 16
5.3 Value group C 17
5.3.1 General 17
5.3.2 Abstract objects 17
5.4 Value group D 17
5.4.1 General 17
5.4.2 Consortia specific identifiers 18
5.4.3 Country specific identifiers 18
5.4.4 Identification of general and service entry objects 20
5.5 Value group E 20
5.6 Value group F 20
5.6.1 General 20
5.6.2 Identification of billing periods 20
6 Abstract objects (Value group A = 0) 20
6.1 General and service entry objects – Abstract 20
6.2 Error registers, alarm registers / filters / descriptor objects – Abstract 26
6.3 List objects – Abstract 26
6.4 Register table objects – Abstract 26
6.5 Data profile objects – Abstract 27
7 Electricity (Value group A = 1) 27
7.1 Value group C codes – Electricity 27
7.2 Value group D codes – Electricity 30
7.2.1 Processing of measurement values 30
7.2.2 Use of value group D for identification of other objects 33
7.3 Value group E codes – Electricity 33
7.3.1 General 33
7.3.2 Tariff rates 33

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7.3.3 Harmonics 34
7.3.4 Phase angles 34
7.3.5 Transformer and line loss quantities 35
7.3.6 UNIPEDE voltage dips 38
7.3.7 Use of value group E for the identification of other objects 38
7.4 Value group F codes – Electricity 39
7.4.1 Billing periods 39
7.4.2 Multiple thresholds 39
7.5 OBIS codes – Electricity 40
7.5.1 General and service entry objects – Electricity 40
7.5.2 Error register objects – Electricity 44
7.5.3 List objects – Electricity 44
7.5.4 Data profile objects – Electricity 45
7.5.5 Register table objects – Electricity 45
8 Other media (Value group A = 15) 46
8.1 General 46
8.2 Value group C codes – Other media 46
8.3 Value group D codes – Other media 46
8.4 Value group E codes – Other media 46
8.5 Value group F codes – Other media 46
Annex A (normative) Code presentation 47
A.1 Reduced ID codes (e.g. for IEC 62056-21) 47
A.2 Display 47
A.3 Special handling of value group F 48
A.4 COSEM 49
Annex B (informative) Significant technical changes with respect to IEC 62056-6-1:2017 50
Bibliography 51

Figure 1 – Quadrant definitions for active and reactive power 30
Figure 2 – Model of the line and the transformer for calculation of loss quantities 35
Figure A.1 – Reduced ID code presentation 47

Table 1 – OBIS code structure and use of value groups 14
Table 2 – Rules for manufacturer, utility, consortia and country specific codes 15
Table 3 – Value group A codes 16
Table 4 – Value group B codes 16
Table 5 – Value group C codes – Abstract objects 17
Table 6 – Value group D codes – Consortia specific identifiers 18
Table 7 – Value group D codes – Country specific identifiers 18
Table 8 – OBIS codes for general and service entry objects 21
Table 9 – OBIS codes for error registers, alarm registers and alarm filters – Abstract 26
Table 10 – OBIS codes for list objects – Abstract 26

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Table 11 – OBIS codes for Register Table objects – Abstract 27
Table 12 – OBIS codes for data profile objects – Abstract 27
Table 13 – Value group C codes – Electricity 27
Table 14 – Value group D codes – Electricity 30
Table 15 – Value group E codes – Electricity – Tariff rates 33
Table 16 – Value group E codes – Electricity – Harmonics 34
Table 17 – Value group E codes – Electricity – Extended phase angle measurement 34
Table 18 – Value group E codes – Electricity – Transformer and line losses 35
Table 19 – Value group E codes – Electricity – UNIPEDE voltage dips 38
Table 20 – OBIS codes for general and service entry objects – Electricity 40
Table 21 – OBIS codes for error register objects – Electricity 44
Table 22 – OBIS codes for list objects – Electricity 44
Table 23 – OBIS codes for data profile objects – Electricity 45
Table 24 – OBIS codes for register Table objects – Electricity 45
Table 25 – Value group C codes – Other media 46
Table A.1 – Example of display code replacement 48
Table A.2 – Value group F – Billing periods 49

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRICITY METERING DATA EXCHANGE – THE DLMS®/COSEM SUITE –

Part 6-1: Object Identification System (OBIS)

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IEC 62056-6-1 has been prepared by IEC technical committee 13: Electrical energy measurement and control. It is an International Standard.

This fourth edition cancels and replaces the third edition of IEC 62056-6-1, published in 2017. This edition constitutes a technical revision.

The main technical changes with respect to the previous edition are listed in Annex B (informative).

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

Draft	Report on voting
13/1852/CDV	13/1883/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/publications.

A list of all the parts in the IEC 62056 series, published under the general title *Electricity metering data exchange – The DLMS®/COSEM suite*, 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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INTRODUCTION

This fourth edition of IEC 62056-6-1 has been prepared by IEC TC13 with a significant contribution of the DLMS® User Association, its A-type liaison partner.

This edition is in line with the DLMS® UA Blue Book Edition 14. This edition specifies new OBIS codes related to new applications.

Data identification

The competitive electricity market requires an ever-increasing amount of timely information concerning the usage of electrical energy. Recent technology developments enable to build intelligent static metering equipment, which is capable of capturing, processing and communicating this information to all parties involved.

To facilitate the analysis of metering information, for the purposes of billing, load, customer and contract management, it is necessary to uniquely identify data items, whether collected manually or automatically, via local or remote data exchange, in a manufacturer-independent way. The definition of identification codes to achieve this – the OBIS codes – is based on DIN 43863-3:1997, *Electricity meters – Part 3: Tariff metering device as additional equipment for electricity meters – EDIS – Energy Data Identification System.*

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this International Standard may involve the use of a maintenance service concerning the stack of protocols on which the present standard IEC 62056-6-1 is based.

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DLMS User Association
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ELECTRICITY METERING DATA EXCHANGE – THE DLMS®/COSEM SUITE –

Part 6-1: Object Identification System (OBIS)

1 Scope

This part of IEC 62056 specifies the overall structure of the OBject Identification System (OBIS) and the mapping of all commonly used data items in metering equipment to their identification codes.

OBIS provides a unique identifier for all data within the metering equipment, including not only measurement values, but also abstract values used for configuration or obtaining information about the behaviour of the metering equipment. The ID codes defined in this document are used for the identification of:

- logical names of the various instances of the ICs, or objects, as defined in IEC 62056-6-2:2023;
- data transmitted through communication lines;
- data displayed on the metering equipment, see Clause A.2 in Annex A.

This document applies to all types of metering equipment, such as fully integrated meters, modular meters, tariff attachments, data concentrators, etc.

To cover metering equipment measuring energy types other than electricity, combined metering equipment measuring more than one type of energy or metering equipment with several physical measurement channels, the concepts of medium and channels are introduced. This allows meter data originating from different sources to be identified. While this document fully defines the structure of the identification system for other media, the mapping of non-electrical energy related data items to ID codes is completed separately.

NOTE EN 13757-1:2014 defines identifiers for metering equipment other than electricity: heat cost allocators, thermal energy, gas, cold water and hot water.

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 TR 62051:1999, *Electricity metering – Glossary of terms*

IEC TR 62051-1:2004, *Electricity metering – Data exchange for meter reading, tariff and load control – Glossary of terms – Part 1: Terms related to data exchange with metering equipment using DLMS®/COSEM*

IEC 62056-21:2002, *Electricity metering – Data exchange for meter reading, tariff and load control – Part 21: Direct local data exchange*

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