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IEC 62056-7-3

Edition 1.0 2017-03

# INTERNATIONAL STANDARD



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**Electricity metering data exchange – The DLMS/COSEM suite –  
Part 7-3: Wired and wireless M-Bus communication profiles for local and  
neighbourhood networks**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ICS 17.220.20; 35.100.01; 91.140.50

ISBN 978-2-8322-4012-0

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## CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references .....	7
3 Terms, definitions and abbreviated terms .....	8
3.1 Terms and definitions.....	8
3.2 Abbreviated terms.....	8
4 Targeted communication environments.....	9
5 Use of the communication layers for this profile.....	9
5.1 Information related to the use of the standard specifying the lower layers .....	9
5.2 Structure of the communication profiles .....	9
5.3 Lower protocol layers and their use .....	10
5.3.1 Physical layer .....	10
5.3.2 Link layer.....	10
5.3.3 Transport layer .....	11
5.4 Service mapping and adaptation layers.....	11
5.4.1 Overview .....	11
5.4.2 MBUS-DATA service primitives.....	12
5.4.3 MBUS-DATA protocol specification.....	14
5.5 Registration and connection management.....	16
6 Identification and addressing scheme .....	16
6.1 Overview .....	16
6.2 Link Layer Address for wired M-Bus.....	17
6.3 Link Layer Address for wireless M-Bus .....	18
6.4 Link Layer Address for M-Bus broadcast.....	18
6.5 Transport layer address .....	19
6.6 Application addressing extension – M-Bus wrapper.....	21
7 Specific considerations and constraints for using certain services within profile.....	22
7.1 Overview .....	22
7.2 Application association establishment and release: ACSE services.....	22
7.3 xDLMS services .....	23
7.3.1 Request – response type services .....	23
7.3.2 Unsolicited services.....	23
7.3.3 Broadcast messages .....	23
7.4 Security mechanisms .....	24
7.5 Transporting long application messages .....	24
7.6 Media access, bandwidth and timing considerations .....	24
8 Communication configuration and management.....	24
Annex A (informative) M-Bus frame structures, addressing schemes and examples.....	25
A.1 General.....	25
A.2 None, short or long M-Bus data header.....	26
A.2.1 Wired M-Bus.....	26
A.2.2 Wireless M-Bus .....	27
A.3 Encoding example: Data-Notification carrying daily billing data .....	30
A.3.1 Overview .....	30
A.3.2 Example: Daily billing data.....	31

Annex B (normative) New COSEM interface classes related to the M-Bus communication profiles .....	33
Annex C (informative) Message sequence charts .....	34
Bibliography.....	37
Figure 1 – Entities and interfaces of a smart metering system using the terminology of IEC 62056-1-0 .....	9
Figure 2 – The DLMS/COSEM wired and wireless M-Bus communication profiles .....	10
Figure 3 – Summary of DLMS/COSEM M-Bus-based TL services .....	12
Figure 4 – Identification and addressing scheme in the wired M-Bus profile .....	17
Figure 5 – Link Layer Address for wireless M-Bus.....	18
Figure 6 – M-Bus TPDU formats .....	20
Figure 7 – CI <sub>TL</sub> without M-Bus data header .....	20
Figure A.1 – M-Bus communication paths direct or cascaded.....	25
Figure A.2 – Wired M-Bus frame structure, none M-Bus data header .....	27
Figure A.3 – Wired M-Bus frame structure with long M-Bus data header .....	27
Figure A.4 – Wireless M-Bus frame structure with short ELL, no M-Bus data header.....	29
Figure A.5 – Wireless M-Bus frame structure with long ELL, no M-Bus data header .....	29
Figure A.6 – Wireless M-Bus frame structure with long ELL and long M-Bus data header .....	30
Figure A.7 – Daily billing data without / with DLMS/COSEM security applied.....	32
Figure C.1 – MSC for the COSEM-OPEN service for wired M-Bus, no M-Bus header .....	35
Figure C.2 – MSC the GET service for wired M-Bus, no M-Bus header .....	36
Table 1 – Wired M-Bus Link Layer Addresses .....	18
Table 2 – DLMS/COSEM M-Bus-based TL CI <sub>TL</sub> values .....	19
Table 3 – CI fields used for link management purposes .....	21
Table 4 – Client and server SAPs .....	21
Table 5 – Application associations and data exchange in the M-Bus-based profiles .....	22
Table A.1 – Example: Daily billing data .....	31

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –**

#### **Part 7-3: Wired and wireless M-Bus communication profiles for local and neighbourhood networks**

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The IEC takes no position concerning the evidence, validity and scope of this maintenance service.

The provider of the maintenance service has assured the IEC that he is willing to provide services under reasonable and non-discriminatory terms and conditions for applicants throughout the world. In this respect, the statement of the provider of the maintenance service is registered with the IEC. Information may be obtained from:

DLMS<sup>1</sup> User Association  
Zug/Switzerland  
www.dlms.com

International Standard IEC 62056-7-3 has been prepared by IEC technical committee 13: Electrical energy measurement and control.

The text of this standard is based on the following documents:

FDIS	Report on voting
13/1729/FDIS	13/1731/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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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1 Device Language Message Specification.

## INTRODUCTION

As defined in IEC 62056-1-0, the IEC 62056 DLMS/COSEM suite provides specific communication profile standards for communication media relevant for smart metering.

Such communication profile standards specify how the COSEM data model and the DLMS/COSEM application layer can be used on the lower, communication media-specific protocol layers.

Communication profile standards refer to communication standards that are part of the IEC 62056 DLMS/COSEM suite or to any other open communication standard.

This International Standard specifies DLMS/COSEM communication profiles for wired and wireless M-Bus networks using the lower layers specified in the EN 13757 series.

It follows the rules defined in IEC 62056-5-3, Annex A.

The DLMS/COSEM wired and wireless M-Bus communication profiles for local and neighbourhood networks may be used for smart energy data exchange with meters as well as with simple consumer displays and home automation systems.

## **ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –**

### **Part 7-3: Wired and wireless M-Bus communication profiles for local and neighbourhood networks**

#### **1 Scope**

This International Standard specifies DLMS/COSEM wired and wireless M-Bus communication profiles for local and neighbourhood networks.

Setting up and managing the M-Bus communication channels of M-Bus devices, the M-Bus network, registering slave devices and – when required – repeaters is out of the scope of this International Standard.

The scope of this communication profile standard is restricted to aspects concerning the use of communication protocols in conjunction with the COSEM data model and the DLMS/COSEM application layer. Data structures specific to a communication protocol are out of the scope of this standard. Any project-specific definitions of data structures and data contents may be provided in project-specific companion specifications.

Annex A (informative) provides information on M-Bus frame structures, addressing schemes and an encoding example.

Annex B (normative) points to COSEM interface classes to set up and manage the wired and wireless M-Bus communication channel.

Annex C (informative) provides MSCs for representative instances of communication.

#### **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 62056-5-3:2016, *Electricity metering data exchange – The DLMS/COSEM suite – Part 5-3: DLMS/COSEM application layer*

IEC 62056-6-1:2015, *Electricity metering data exchange – The DLMS/COSEM suite – Part 6-1: Object identification system (OBIS)*

IEC 62056-6-2:2016, *Electricity metering data exchange – The DLMS/COSEM suite – Part 6-2: COSEM interface classes*

IEC 62056-6-2:—<sup>2</sup>, *Electricity metering data exchange – The DLMS/COSEM suite – Part 6-2: COSEM interface classes*

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<sup>2</sup> Under preparation. Stage at the time of publication: IEC/CDV 62056-6-2:2016.

EN 13757-1, *Communication system for meters – Part 1: Data exchange*

EN 13757-2:2004, *Communication system for and remote reading of meters – Part 2: Physical and link layer*

EN 13757-3:2013, *Communication systems for and remote reading of meters – Part 3: Dedicated application layer*

EN 13757-4:2013, *Communication systems for meters and remote reading of meters – Part 4: Wireless meter readout (Radio meter reading for operation in SRD bands)*