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Communication system for meters and remote reading of meters - Part 1: Data exchange

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13757-1:2003 sisaldab Euroopa standardi EN 13757-1:2002 ingliskeelset teksti. Käesolev dokument on jõustatud 18.02.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 13757-1:2003 consists of the English text of the European standard EN 13757-1:2002. This document is endorsed on 18.02.2003 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: CEN/TC 294 works with the standardisation of remote reading of meters. It does not cover electricity metering, as standardisation of remote readout of electricity meters is a task for IEC/CENELEC. One of the major activities for CEN/TC 294 is to provide a protocol specification for the Application Layer of the meters	**Scope:** CEN/TC 294 works with the standardisation of remote reading of meters. It does not cover electricity metering, as standardisation of remote readout of electricity meters is a task for IEC/CENELEC. One of the major activities for CEN/TC 294 is to provide a protocol specification for the Application Layer of the meters

ICS 33.200, 35.100.70

Võtmesõnad: information exchange, la, mac, measurement data communication, medium access control, meters, physical layers, pstn, public switched telephone network, remote monitoring, teleprocessing, transport layers, wan, white layers, wide area network

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Eesti Standardikeskusele kuulub standardite reprodutseerimis- ja levitamisõigus

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13757-1

December 2002

ICS 33.200; 35.100.70

English version

Communication system for meters and remote reading of meters - Part 1: Data exchange

Systèmes de communication et de télérelevé de compteurs - Partie 1: Echange de données

Kommunikationssysteme für Zähler und deren Fernablesung - Teil 1: Datenaustausch

This European Standard was approved by CEN on 7 November 2002.

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Ref. No. EN 13757-1:2002 E

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Foreword

This document (EN 13757-1:2002) has been prepared by Technical Committee CEN /TC 294, "Communication systems for meters and remote reading of meters", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2003, and conflicting national standards shall be withdrawn at the latest by June 2003.

Annexes A and C are normative. Annex B is informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This document describes the data exchange and communications for meters and remote reading of meters in a generic way. It is part 1 of the EN 13757 Standard. Additional parts are:

EN 13757 part 2: Physical and link layer, twisted pair baseband (M-Bus)
EN 13757 part 3: Dedicated application layer (M-Bus)
EN 13757 part 4: Wireless meter readout

The main use of part 1 is to provide a protocol specification for the Application Layer for meters.

Remark: Electricity meters are not covered with this standard, as the standardisation of remote readout of electricity meters is a task for IEC/CENELEC.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 834, *Heat cost allocators for the determination of the consumption of room heating radiators - Appliances with electrical energy supply*.

EN 1434-1, *Heat meters - Part 1 : General requirements*.

EN 1434-2, *Heat meters - Part 2 : Constructional requirements*.

EN 12405, *Gas meters - Gas volume electronic conversion devices.*.

prEN 13757-2:2002, *Communication systems for and remote reading of meters - Part 2 : Physical and link layer, twisted pair baseband (M-Bus)*.

EN 60870-5-2, *Telecontrol equipment and systems - Part 5 : Transmission protocols - Section 2 : Link transmission procedures (IEC 60870-5-2:1992).*

EN 61334-4-1 *Distribution automation using distribution line carrier systems - Part 4 : Data communication protocols - Section 1 : Reference model of the communication system (IEC 61334-4-1:1996)*.

EN 61334-4-41 *Distribution automation using distribution line carrier systems - Part 4 : Data communication protocols - Section 41 : Application protocols - Distribution line message specification (IEC 61334-4-41:1996)*.

EN 61334-6, *Distribution automation using distribution line carrier systems - Part 6 : A-XDR encoding rule (IEC 61334-6:2000)*

IEC 62056-21: 2000, *Electricity metering - Data exchange for meter reading, tariff and load control - Part 21 : Direct local data exchange*.

EN 62056-31:2000, *Electricity metering - Data exchange for meter reading, tariff and load control - Part 31 : Use of local area networks on twisted pair with carrier signalling (IEC 62056-31:1999)*.

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IEC 62056-42, *Electricity metering - Data exchange for meter reading, tariff and load control – Part 42 : Physical layer services and procedures for connection-oriented asynchronous data exchange*.

IEC 62056-46:2002, *Electricity metering - Data exchange for meter reading, tariff and load control - Part 46 : Data link layer using HDLC - protocol*.

IEC 62056-53:2002, *Electricity metering - Data exchange for meter reading, tariff and load control – Part 53 : COSEM application layer*.

IEC 62056-61:2002, *Electricity metering - Data exchange for meter reading, tariff and load control – Part 61 : Object Identification System (OBIS)*.

IEC 62056-62:2002, *Electricity metering - Data exchange for meter reading, tariff and load control – Part 62 : Interface classes*.

ISO 1155; *Information processing -- Use of longitudinal parity to detect errors in information messages*.

ISO 1177; *Information processing -- Character structure for start/stop and synchronous character oriented transmission.*

ISO 1745; *Information processing -- Basic mode control procedures for data communication systems*.

ISO 7498-1, *Information technology - Open Systems Interconnection - Basic Reference Model : The Basic Model.*

ISO 9506-1, *Industrial automation systems - Manufacturing Message Specification - Part 1 : Service Definition.*

ISO/IEC 646; *Information technology – ISO 7-bit coded character set for information interchange.*

ISO/IEC 8649; *Information technology - Open Systems Interconnection - Service definition for the Association Control Service Element.*

ISO/IEC 8650-1; *Information technology - Open Systems Interconnection - Connection-oriented protocol for the Association Control Service Element: Protocol specification.*

ISO/IEC 8802-2, *Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 2 : Logical link control*.

ISO/IEC 8824-1, *Information technology - Abstract Syntax Notation One (ASN.1) : Specification of basic notation*.

ISO/IEC 13239, *Information technology - Telecommunications and information exchange between systems - High-level data link control (HDLC) procedures*.

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions for remote readout of meters can be found in annex C of this document.

4 General description

Here follows a description of the environment that this standard is applicable to, i.e. remote readout from a metering unit in a network using a non-routed approach.

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