

Communication systems for meters - Part 6: Local Bus

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 13757-6:2015 sisaldab Euroopa standardi EN 13757-6:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 13757-6:2015 consists of the English text of the European standard EN 13757-6:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 02.12.2015.	Date of Availability of the European standard is 02.12.2015.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 33.200, 35.100.10, 35.100.20

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:

Aru 10, 10317 Tallinn, Eesti; koduleht [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Aru 10, 10317 Tallinn, Estonia; homepage [www.evs.ee](http://www.evs.ee); phone +372 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

English Version

## Communication systems for meters - Part 6: Local Bus

Systèmes de communication pour compteurs - Partie 6:  
Bus local

Kommunikationssysteme für Zähler - Teil 6: Lokales  
Bussystem

This European Standard was approved by CEN on 27 September 2015.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

<b>Contents</b>		<b>Page</b>
<b>European foreword</b> .....		<b>3</b>
<b>Introduction</b> .....		<b>4</b>
<b>1</b>	<b>Scope</b> .....	<b>5</b>
<b>2</b>	<b>Normative references</b> .....	<b>5</b>
<b>3</b>	<b>Physical Layer Specifications</b> .....	<b>5</b>
<b>Annex A (informative) Schematic implementation of a meter interface</b> .....		<b>7</b>
<b>Bibliography</b> .....		<b>8</b>

## European foreword

This document (EN 13757-6:2015) has been prepared by Technical Committee CEN/TC 294 "Communication systems for meters", the secretariat of which is held by DIN.

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 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13757-6:2008.

The following significant editorial changes compared to the previous edition have been incorporated in this European Standard:

- a) update of the standards title; and
- b) update of normative references to EN 13757-2.

EN 13757 consists of the following parts, under the general title "Communication systems for meters":

- *Part 1: Data exchange*
- *Part 2: Physical and link layer*
- *Part 3: Dedicated application layer*
- *Part 4: Wireless meter readout (Radio meter reading for operation in SRD bands)*
- *Part 5: Wireless M-Bus relaying*
- *Part 6: Local Bus*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

This European Standard is part of a series of standards which covers communication systems for meters and remote reading of meters.

- EN 13757-1 contains generic descriptions and a communication protocol,
- EN 13757-2 contains the description of the physical and link layer of a universal twisted pair bus system (M-Bus),
- EN 13757-3 contains higher protocol layers like transport or application layer,
- EN 13757-4 specifies wireless communication and
- EN 13757-5 specifies a relaying extension of EN 13757-4.

This European Standard can be used with various link and application layers. Frequently, the application layer of EN 13757-3 (M-Bus) or the DLMS based application layer described in EN 13757-1 is used. An overview of communication systems for meters is given in EN 13757-1, which also contains further definitions.

## 1 Scope

This European Standard specifies the physical layer parameters of a local meter readout system ("Local Bus") for the communication with and the readout of a single meter or a small cluster of meters via a single battery powered readout device ("master") which can be connected temporarily or stationary for the communication directly to a meter (i.e. local readout) or via a fixed wiring or a small bus (i.e. remote readout).

For generic descriptions concerning communication systems for meters and remote reading of meters, refer to EN 13757-1.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13757-2, *Communication systems for meters and remote reading of meters — Part 2: Physical and link layer*

## 3 Physical Layer Specifications

The Local Bus is an alternative to the M-Bus. It is restricted to small installations (Mini installation according to EN 13757-2:2004, Annex E.6.1 type E) and optimized for special battery-driven masters. Usually the readout frequency is limited by the meter. The total cable length is limited to 50 m. The Local Bus does not support meter power supply from the bus. Note that this meter interface is not compatible with M-Bus masters according to EN 13757-2. To facilitate the meter power management, the master shall switch the bus power on (i.e. enter the master mark send state) not more than 10 s before any meter communication.

NOTE Annex A shows a possible circuit diagram for implementing such an interface.

A meter equipped with a Local Bus interface shall meet the requirements of Table 1.