

SOOJUSARVESTID, OSA 6: PAIGALDUS,
KASUTUSELEVÕTT, KÄIDUKONTROLL JA HOOLDUS

Thermal energy meters - Part 6: Installation,
commissioning, operational monitoring and
maintenance

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 1434-6:2015+A1:2019 sisaldab Euroopa standardi EN 1434-6:2015+A1:2019 ingliskeelset teksti.	This Estonian standard EVS-EN 1434-6:2015+A1:2019 consists of the English text of the European standard EN 1434-6:2015+A1:2019.
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 13.02.2019.	Date of Availability of the European standard is 13.02.2019.
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.

ICS 17.200.10

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:

Koduleht www.evs.ee; telefon 605 5050; e-post 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:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

Thermal energy meters - Part 6: Installation, commissioning, operational monitoring and maintenance

Compteurs d'énergie thermique - Partie 6 : Installation,
mise en service, surveillance et maintenance

Thermische Energiemessgeräte - Teil 6: Einbau,
Inbetriebnahme, Überwachung und Wartung

This European Standard was approved by CEN on 5 September 2015 and includes Amendment 1 approved by CEN on 5 February 2018.

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, Serbia, 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: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Requirements	5
4.1 Design requirements	5
4.2 Installation requirements	6
4.3 ⌈A1⌋ Thermal energy meter ⌈A1⌋ commissioning	7
4.3.1 General	7
4.3.2 Certification check	7
4.3.3 Installation check	7
4.3.4 ⌈A1⌋ Thermal energy meter ⌈A1⌋ security	7
Annex A (informative) ⌈A1⌋ Thermal energy meter ⌈A1⌋ installation	8
Annex B (informative) ⌈A1⌋ Thermal energy meter ⌈A1⌋ operational monitoring and maintenance	18
Annex C (informative) Suggested gauge for checking the dimensions of installed temperature sensor pockets	21
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2014/32/EU aimed to be covered	22
Bibliography	23

European foreword

This document (EN 1434-6:2015+A1:2019) has been prepared by Technical Committee CEN/TC 176 “Thermal energy meters”, the secretariat of which is held by SIS.

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 August 2019, and conflicting national standards shall be withdrawn at the latest by August 2019.

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

This document includes Amendment 1 approved by CEN on 5 February 2018.

This document supersedes $\boxed{A1}$ EN 1434-6:2015 $\boxed{A1}$.

The start and finish of text introduced or altered by amendment is indicated in the text by tags $\boxed{A1}$ $\boxed{A1}$.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

EN 1434, *Thermal energy meters* consists of the following parts:

- *Part 1: General requirements*
- *Part 2: Constructional requirements*
- *Part 3: Data exchange and interfaces¹⁾*
- *Part 4: Pattern approval tests*
- *Part 5: Initial verification tests*
- *Part 6: Installation, commissioning, operational monitoring and maintenance*

In comparison to EN 1434-6:2007, the following changes have been made:

- special cases for combined $\boxed{A1}$ thermal energy meters $\boxed{A1}$ are added;
- additional functionalities for smart metering applications are added;
- installation requirements added for $\boxed{A1}$ thermal energy meters $\boxed{A1}$ which are located next to cables like data communication cables and mains supply cables;
- installation requirement changed for 4-wire connections;
- cooling meters are added.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

¹⁾ EN 1434-3 is maintained by CEN/TC 294.

1 Scope

This European Standard specifies commissioning, operational monitoring and maintenance and applies to **EN** thermal energy meters **EN**. **EN** Thermal energy meters **EN** are instruments intended for measuring the energy which in a heat-exchange circuit is absorbed (cooling) or given up (heating) by a liquid called the heat-conveying liquid. The **EN** thermal energy meter **EN** indicates the quantity of heat in legal units.

Electrical safety requirements are not covered by this European Standard.

Pressure safety requirements are not covered by this European Standard.

Surface mounted temperature sensors are not covered by this European Standard.

This standard covers meters for closed systems only, where the differential pressure over the thermal load is limited.

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 EN 1434-1:2015+A1:2018, *Thermal energy meters — Part 1: General requirements* **EN**

3 Terms and definitions

For the purposes of this document, the terms and definitions given in **EN** EN 1434-1:2015+A1:2018 **EN** and the following apply.

EN 3.1

thermal energy system

heating or cooling installations of the dwelling or premises, including the exchange circuit, the thermal energy meter, the associated fittings and the electrical equipment

Note 1 to entry: The heating or cooling systems typically commences and finishes at the two connections to the heat or cooling mains.

3.2

thermal energy mains

heat or cooling suppliers distribution pipes to which the consumer's installation is connected

3.3

inlet and outlet limbs

pipes connecting the heating or cooling system to the thermal energy mains

3.4

primary circuit

circuit hydraulically connected to the thermal energy mains **EN**

3.5

secondary circuit

circuit hydraulically separated from the primary circuit