

STN	Merače tepla Časť 3: Výmena dát a rozhrania	STN EN 1434-3 25 8512
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Thermal energy meters - Part 3: Data exchange and interfaces

Táto norma obsahuje anglickú verziu európskej normy.

This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/25

Obsahuje: EN 1434-3:2025

Oznámením tejto normy sa ruší

STN EN 1434-3 (25 8512) z mája 2016

140596

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2025

Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1434-3

April 2025

ICS 17.200.10

Supersedes EN 1434-3:2015

English Version

**Thermal energy meters - Part 3: Data exchange and
interfaces**

Compteurs d'énergie thermique - Partie 3 : Échange de
données et interfaces

Thermische Energiezähler - Teil 3: Datenaustausch und
Schnittstellen

This European Standard was approved by CEN on 4 November 2024.

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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.

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

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EN 1434-3:2025 (E)**European foreword**

This document (EN 1434-3:2025) 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of an identical text or by endorsement, at the latest by October 2025, and conflicting national standards shall be withdrawn at the latest by October 2025.

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 supersedes EN 1434-3:2015.

EN 1434-3:2025 includes the following significant technical changes with respect to EN 1434-3:2015:

- a) change from heat to thermal energy meters in accordance with the EN 1434 series;
- b) deletion of former Annex B, *Additional information for thermal energy meters*;
- c) protocol modes according to EN 62056-21 for the optical interface of thermal energy meters are no longer supported;
- d) deletion of (sub)Clauses 5.1.2, 5.4, and C.3 (regarding EN 62056-21 protocol) as well as in subclause 6.1;
- e) Clause 4.5 Physical layer current loop interface was deleted and Table 1 updated;
- f) Clause 4.6 Physical layer local bus was deleted in accordance with the withdrawal of EN 13757-6;
- g) Clause 5.4 Link layer current-loop interface was deleted;
- h) former Annex E, *Protection techniques for M-Bus meters against surge/lightning*, was moved to EN 13757-2.

EN 1434 consists of the following parts, under the general title “Thermal energy meters”:

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

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

EN 1434-3:2025 (E)**1 Scope**

This document specifies the general requirements of data exchange and interfaces for thermal energy meters.

This document is applicable to unidirectionally and bidirectionally transmitting thermal energy meters.

This document applies also to networks with up to 250 meters, for which a master unit with AC mains supply is necessary to control the M-Bus. In these cases, the document is only applicable in conjunction with EN 13757-2 (physical and link layer) and EN 13757-3 (application layer).

For wireless thermal energy meter communications, this document is only applicable in conjunction with EN 13757-4, which describes several alternatives of walk/drive-by readout via a mobile station or by using stationary receivers or a network.

NOTE Thermal energy meters 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 meter indicates thermal energy in legal units.

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.

EN 13757-3:2025, *Communication systems for meters and remote reading of meters — Part 3: Dedicated application layer*

EN 13757-4, *Communication systems for meters — Part 4: Wireless M-Bus communication*

EN 13757-7:2025, *Communication systems for meters — Part 7: Transport and security services*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN