

SOOJUSARVESTID. OSA 2: KONSTRUKTSIOONINÕUDED

Thermal energy meters - Part 2: Constructional requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 1434-2:2022 sisaldab Euroopa standardi EN 1434-2:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 1434-2:2022 consists of the English text of the European standard EN 1434-2:2022.
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ICS 17.200.20

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EUROPEAN STANDARD

EN 1434-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2022

ICS 17.200.20

Supersedes EN 1434-2:2015+A1:2018

English Version

Thermal energy meters - Part 2: Constructional requirements

Compteurs d'énergie thermique - Partie 2 :
Prescriptions de fabrication

Thermische Energiemessgeräte - Teil 2:
Anforderungen an die Konstruktion

This European Standard was approved by CEN on 17 July 2022.

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Contents

Page

European foreword	4
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	7
4 Temperature sensors.....	7
4.1 General.....	7
4.2 Mechanical design	7
4.2.1 General.....	7
4.2.2 Materials of temperature probe sheath and pocket	7
4.2.3 Dimensions of direct mounted short probes - Type DS	8
4.2.4 Dimensions of direct mounted long probes - Type DL	8
4.2.5 Dimensions of pocket mounted long probes - Type PL.....	9
4.2.6 Dimensions of temperature pocket.....	10
4.2.7 Design of short probes with respect to installation	11
4.2.8 Design of long probes with respect to installation	12
4.3 Platinum temperature sensor	12
4.3.1 Specialized definitions for 2 wire temperature probes.....	12
4.3.2 Resistance characteristics	13
4.3.3 Signal leads.....	13
4.3.4 Temperature sensors for the 2-wire method	14
4.3.5 Temperature sensors for the 4-wire method	14
4.3.6 Thermal response time.....	14
4.3.7 Qualifying immersion depth of a temperature sensor.....	14
4.4 Other temperature sensors.....	14
5 Flow sensors	15
5.1 Maximum admissible working pressure, PS in bar	15
5.2 Sizes and dimensions	15
5.3 Test signal output	16
5.4 Adjusting device	17
6 Calculators.....	17
6.1 Terminals - specification and identification.....	17
6.1.1 General.....	17
6.1.2 Terminals for signal leads	17
6.1.3 Terminals for connection to the mains supply	19
6.2 Batteries.....	19
6.3 Dynamic behaviour	19
6.4 Test signal output	19
6.5 24 h interruption in supply voltage	20
7 Complete meter	20
8 Interfaces between sub-assemblies	21
8.1 General.....	21
8.2 Definitions for pulse device interfaces	21
8.2.1 General.....	21

8.2.2	Electrical connection	21
8.2.3	Classification of pulse output devices	21
8.2.4	Timing and electrical parameters for pulse output devices (other than test signals)	22
8.2.5	Classification of pulse input devices.....	22
8.2.6	Timing and electrical parameter for pulse input devices.....	23
8.2.7	Compatibility.....	23
9	Marking and security seals	24
9.1	Marking	24
9.1.1	General	24
9.1.2	Temperature sensor pairs.....	24
9.1.3	Pockets	24
9.1.4	Flow sensor	24
9.1.5	Calculator	25
9.1.6	Complete meter.....	25
9.2	Sites for marking.....	26
9.3	Security seals.....	26
Annex A (informative) Examples of temperature sensors		27
Annex B (normative) Input and output test signals		39
Annex C (informative) Low voltage power supply for the thermal energy meters and their subassemblies.....		42
C.1	Remote supply	42
C.1.1	Voltage (DC or AC)	42
C.1.2	Current available	42
C.1.3	Cabling requirements	42
C.2	Local external DC supply.....	42
C.2.1	Voltage.....	42
C.2.2	Other data.....	42
C.3	Power supply specifications.....	43
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2014/32/EU aimed to be covered		44
Bibliography		45

European foreword

This document (EN 1434-2:2022) 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 March 2023, and conflicting national standards shall be withdrawn at the latest by March 2023.

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 1434-2:2015+A1:2018.

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 with EN 1434-2:2015+A1:2018, the following changes have been made:

- Figure A.10 “Threaded pipe fitting G1/2B, G3/4B, G1B, G1 1/4B and G1 1/2B sizes” has been updated;
- in 4.2.2 “Materials of temperature probe sheath and pocket” another suitable material has been added.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

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.

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

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1 Scope

This document is applicable to the constructional requirements for thermal energy meters. 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 thermal energy meter indicates the quantity of thermal energy in legal units.

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

This document is not applicable to:

- electrical safety requirements;
- pressure safety requirements; and
- surface mounted temperature sensors.

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 1092-1:2018, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 1: Steel flanges*

EN 1092-2:1997, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 2: Cast iron flanges*

EN 1092-3:2003, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 3: Copper alloy flanges*

EN 1434-1:2022, *Thermal energy meters — Part 1: General requirements*

EN 1434-3:2015, *Heat meters — Part 3: Data exchange and interfaces*

EN 1434-4:2022, *Thermal energy meters — Part 4: Pattern approval tests*

EN 60751:2008, *Industrial platinum resistance thermometers and platinum temperature sensors (IEC 60751:2008)*

EN 60947-5-6:2000, *Low-voltage switchgear and controlgear — Part 5-6: Control circuit devices and switching elements — DC interface for proximity sensors and switching amplifiers (NAMUR) (IEC 60947-5-6:1999)*

EN ISO 228-1:2003, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)*

ISO 4903:1989, *Information technology — Data communication — 15-pole DTE/DCE interface connector and contact number assignments*