CSA GROUP™

CSA C900.3:21
(EN 1434-3:2015, MOD)
National Standard of Canada

CSA C900.3:21
Thermal energy meters — Part 3: Data exchange and interfaces
(EN 1434-3:2015, MOD)

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Thermal energy meters — Part 3: Data exchange and interfaces

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CSA Preface

This is the third edition of CSA C900.3, *Thermal energy meters — Part 3: Data exchange and interfaces*, which is an adoption, with Canadian deviations, of CEN (European Committee for Standardization) Standard EN 1434-3 (third edition, 2015-12) titled *Heat meters — Part 3: Data exchange and interfaces*. It supersedes the previous edition published in 2013 as CAN/CSA-C900.3 (adopted EN 1434-3:2008).

For brevity, this Standard will be referred to as "CSA C900.3" throughout.

This Standard is one of a group of Standards on *Thermal energy meters* being adopted by CSA Group, which consists of the following:

a) CSA C900.1 (adopted EN 1434-1) — *Part 1: General requirements;*
b) CSA C900.2 (adopted EN 1434-2) — *Part 2: Constructional requirements;*
c) CSA C900.3 (adopted EN 1434-3) — *Part 3: Data exchange and interfaces;*
d) CSA C900.4 (adopted EN 1434-4) — *Part 4: Pattern approval tests;*
e) CSA C900.5 (adopted EN 1434-5) — *Part 5: Initial verification tests;* and
f) CSA C900.6 (adopted EN 1434-6) — *Part 6: Installation, commissioning, operational monitoring and maintenance.*

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This Standard was reviewed for Canadian adoption by the CSA Technical Committee on Thermal Energy Meters, under the jurisdiction of the CSA Strategic Steering Committee on Fuels and Appliances, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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This Standard is subject to review within five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:

a) *Standard designation (number);*
b) *relevant clause, table, and/or figure number;*
c) *wording of the proposed change; and*
d) *rationale for the change.*

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 1434-3

December 2015

ICS 17.200.10

Supersedes EN 1434-3:2008

English Version

Heat meters - Part 3: Data exchange and interfaces

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

Wärmezähler - Teil 3: Datenaustausch und Schnittstellen

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.

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Ref. No. EN 1434-3:2015 E

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European foreword

This document (EN 1434-3:2015) 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.

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This document supersedes EN 1434-3:2008.

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

a) update of normative references;

b) update of Table 1 “Possible combinations of interfaces and standards”;

c) addition of explanations to Table B.1 “Values for "UU", register codes”.

EN 1434 consists of the following parts, under the general title "Heat meters":

— *Part 1: General requirements*

— *Part 2: Constructional requirements*

— *Part 4: Pattern approval tests*

— *Part 5: Initial verification tests*

— *Part 6: Installation, commissioning, operational monitoring and maintenance*

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.

1 Scope

This European Standard specifies the general requirements and applies to heat meters. Heat 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 heat in legal units.

Part 3 specifies the data exchange between a meter and a readout device (POINT / POINT communication). For these applications using the optical readout head, the EN 62056-21 protocol is recommended.

For direct or remote local readout of a single or a few meters via a battery driven readout device, the physical layer of EN 13757-6 (local bus) is recommended.

For bigger networks with up to 250 meters, a master unit with AC mains supply according to EN 13757-2 is necessary to control the M-Bus. For these applications the physical and link layer of EN 13757-2 and the application layer of EN 13757-3 is required.

For wireless meter communications, EN 13757-4 describes several alternatives of walk/drive-by readout via a mobile station or by using stationary receivers or a network. Both unidirectionally and bidirectionally transmitting meters are supported by this standard.

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*

EN 13757-3:2013, *Communication systems for meters and remote reading of meters — Part 3: Dedicated application layer*

EN 13757-4, *Communication systems for meters and remote reading of meters — Part 4: Wireless meter readout (Radio meter reading for operation in SRD bands)*

EN 13757-6, *Communication systems for meters — Part 6: Local Bus*

EN 62056-21:2002, *Electricity metering — Data exchange for meter reading, tariff and load control — Part 21: Direct local data exchange (IEC 62056-21:2002)*