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Water meters - Part 4: Additional functionalities



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Water meters - Part 4: Additional functionalities

Compteurs d'eau - Partie 4 : Fonctionnalités
additionnelles

Wasserzähler - Teil 4: Zusätzliche Funktionalitäten

This European Standard was approved by CEN on 23 January 2023.

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European foreword

This document (EN 14154-4:2023) has been prepared by Technical Committee CEN/TC 92 “Water meters”, the secretariat of which is held by SNV.

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of an identical text or by endorsement, at the latest by September 2023, and conflicting national standards shall be withdrawn at the latest by September 2023.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 14154-4:2014.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association.

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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Introduction

This document has been developed as part of the work being undertaken by the European Standards Organizations (CEN/CENELEC/ETSI) under the Commission Mandate M/441. This document utilizes the six functionalities agreed by the Smart Meters Coordination Group (SM-CG) (see Annex B) as the basis for its additional functionalities. It is not required for the Additional Functionality Device (AFD) to incorporate all functions described in this document.

Communications for water meters are outside the scope of this document and are covered by the appropriate parts of the EN 13757 series, which provides a number of protocols and transport layers for meter communications for Gas, Water and Thermal Energy meters. The additional functionality for water meters can be provided by a number of methods; these are illustrated below, see Figure 1 (4.1), and described in detail within this document. The AFD can be integrated in the meter, attached to the meter or remote from the meter.

1 Scope

This document specifies definitions, requirements and testing of additional functionalities for water meters, without metrological impact, in combination with Additional Functionality Devices (AFD) and in response to EU/EFTA Mandate M/441 EN. These AFDs are considered as “ancillary devices” as defined in EN ISO 4064-1:2017 and EN ISO 4064-4:2014.

This document does not cover the changing of metrological software within the meter or the upload/download of metrological software.

NOTE A manufacturer can claim compliance only for additional functionalities described in this document. It is not mandatory that an AFD complies with all additional functionalities described herein.

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 ISO 4064-1:2017, *Water meters for cold potable water and hot water - Part 1: Metrological and technical requirements (ISO 4064-1:2014)*

EN ISO 4064-2:2017, *Water meters for cold potable water and hot water - Part 2: Test methods (ISO 4064-2:2014)*

EN ISO 4064-4:2014, *Water meters for cold potable water and hot water - Part 4: Non-metrological requirements not covered in ISO 4064-1 (ISO 4064-4:2014)*

EN ISO 4064-5:2017, *Water meters for cold potable water and hot water - Part 5: Installation requirements (ISO 4064-5:2014)*

EN 60529:1991, *Degrees of protection provided by enclosures (IP Code)*

3 Terms and definitions

For the purposes of this document, the terms, definitions and symbols given in EN ISO 4064-1:2017, EN ISO 4064-2:2017, EN ISO 4064-4:2014 and EN ISO 4064-5:2017 and the following apply.

NOTE The following terms and definitions are only related to additional functionalities.

3.1 functionality

process which constantly or at specified intervals, automatically or on demand, performs specific activities such as sampling data, reading a data set, verifying or changing a status, or activating a switch

3.2 additional functionality

functionality that a smart meter provides, over and above the metrological functionality covered by the Measuring Instruments Directive

3.3 additional functionality device

device providing any additional functionality