ANSI/AWWA **C707-22**

(Revision of ANSI/AWWA C707-10(R16))

AWWA Standard

Encoder-Type Remote-Registration Systems for Cold-Water Meters

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American Water Works Association

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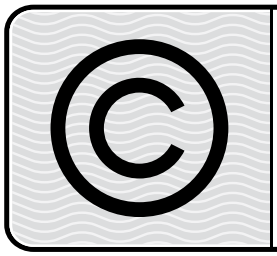
AWWA Standard

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Foreword

This foreword is for information only and is not a part of ANSI/AWWA C707.*

I. Introduction.

I.A. *Background*. The subcommittee that drafted this standard was formed in 1968. Initially, it attempted to formulate a single standard on remote-registration systems that would include both direct-reading and encoder-type systems. Because of design and application differences, it was not possible to achieve that goal. As a result, a standard pertaining to the pneumatic and electrical types of direct-reading systems was published. It was adopted in 1972 and designated ANSI/AWWA Standard C706-72, Direct-Reading Remote Registration Systems for Cold-Water Meters.

The subcommittee began to research and evaluate the various models and types of encoder-remote-registration systems for use on water meters. As with the direct-reading systems, the greatest problem encountered when composing the standard for encoder-type systems was determining the degree of adaptability required between the various systems that were being manufactured. The problem was resolved by requiring that each manufacturer's data-acquisition units be capable of being adaptable to, and of obtaining the necessary data from, at least two additional encoder systems manufactured according to the provisions of this standard.

Present encoder systems are made that are compatible with automatic meter reading systems that use radio, telephone, cellular, electric service lines, or some other data communication means. Compatible interface modules or circuitry may be required.

I.B. *History*. The first edition of this standard was approved by the AWWA Board of Directors on Jan. 26, 1975. The second edition was approved on Feb. 1, 1982, and reaffirmed on Jan. 26, 1992. The third edition of the standard was approved on Jan. 16, 2005. The fourth edition was approved on Jan. 17, 2010, and it was reaffirmed without revision on Jan. 16, 2016. This edition of the standard was approved on Oct. 24, 2022.

II. Special Issues.

II.A. *Metrication.* Throughout this standard, metric equivalents (rounded off) are set in parentheses next to the customary units.

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III. Use of This Standard. It is the responsibility of the user of an AWWA standard to determine that the products described in that standard are suitable for use in the particular application being considered.

III.A. *Purchaser Options and Alternatives.* The following information should be provided by the purchaser:

1. Standard used—that is ANSI/AWWA C707, Standard for Encoder-Type Remote-Registration Systems for Cold-Water Meters, of latest revision.

2. The quantity of units desired and the size, model, and type of meter on which the system is to be installed.

3. Whether a portable data-acquisition unit or portable visual-display unit is to be included and, if so, the quantity and type required.

4. Details of other federal, state or provincial, and local requirements (Sec. 4.1).

5. Whether the system is to register data in cubic feet, US gallons, or other units (Sec. 4.2.1.5).

6. Whether the meter register assembly or the remote receptacle or both are to have provisions made for affixing a customer or meter identification number (Sec. 4.2.1.6 and Sec. 4.2.4.2).

7. Whether contrasting color wheels are to be used for number-wheel numerals, and the details of the contrasting colors required (Sec. 4.2.1.8).

8. Whether meter register faceplates are to be for potable water or reclaimed water (Sec. 4.2.1.10).

9. Whether field installation of the meter register assembly (Sec. 4.2.1.1) and the signal encoder assembly (Sec. 4.2.2.1) is required.

10. Whether transmission wire or cable is to be suitable for direct burial and exposed mounting, or for exposed mounting only (Sec. 4.2.3).

11. Whether tamper-resistance means are required (Sec. 4.2.4.3).

12. Whether the portable data-acquisition unit is to be capable of manual operation and whether provision shall be made to enter the meter reading and register identification number manually (Sec. 4.2.5.2.3).

13. Whether a recharging system is to be supplied (Sec. 4.2.5.4.1 and 4.2.6.4.1).

14. Whether an affidavit of compliance is required (Sec. 6.2).

III.B. *Modification to Standard.* Any modification to the provisions, definitions, or terminology in this standard must be provided in the purchaser's specifications.

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IV. Major Revisions. Major changes made to the standard in this revision include the following:

1. References have been added for ANSI/AWWA C714, Cold-Water Meters for Residential Fire Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes.

2. The requirements for register faceplates have been modified (Sec. 4.2.1.10 and Sec. 4.2.1.11).

V. Comments. If you have any comments or questions about this standard, please call AWWA Engineering and Technical Services at 303.794.7711, FAX at 303.795.7603, write to the department at 6666 West Quincy Avenue, Denver, CO 80235-3098, or e-mail at standards@awwa.org.

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American Water Works Association

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AWWA Standard

Encoder-Type Remote-Registration Systems for Cold-Water Meters

SECTION 1: GENERAL

Sec. 1.1 Scope

This standard covers encoder-type remote-registration systems for use on cold-water meters for water utility customer service, particularly the materials and workmanship employed in the fabrication and assembly of the on-meter registers.

Sec. 1.2 Purpose

The purpose of this standard is to provide the minimum requirements for encoder-type remote-registration systems for cold-water meters, including fabrication and assembly.

Sec. 1.3 Application

This standard can be referenced in specifications for purchasing and receiving cold-water meters for water utility customer service and can be used as a guide for fabricating and assembling encoder-type remote-registration systems for cold-water meters. The stipulations of this standard apply when this document has been referenced and then only to encoder-type remote-registration systems for cold-water meters for water supply service applications.

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