



**American Water Works
Association**

The Authoritative Resource on Safe Water®

ANSI/AWWA C707-10
(Revision of ANSI/AWWA C707-05)

AWWA Standard

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



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6666 West Quincy Avenue
Denver, CO 80235-3098
T 800.926.7337
www.awwa.org

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Committee Personnel

The AWWA Subcommittee on Remote and Encoder Registers, which developed this standard, had the following personnel at the time:

Ronald N. Koch, *Chair*

| | |
|--|---------|
| M.L. Aigen, Boston Water and Sewer Commission, Roxbury, Mass. | (NEWWA) |
| J. Alongi, Kansas City Water Services Department, Kansas City, Mo. | (AWWA) |
| J. Brennan, Neptune Technology Group Inc., Tallassee, Ala. | (AWWA) |
| T. Butler, Itron, Greenwood, S.C. | (AWWA) |
| G.H. De Jarlais, Badger Meter Inc., Milwaukee, Wis. | (AWWA) |
| A. Dudley, Itron, Greenwood, S.C. | (AWWA) |
| G. Gomez, Badger Meter Inc, Milwaukee, Wis. | (AWWA) |
| J. Jackson, Sensus Metering Systems, Texarkana, Texas | (AWWA) |
| R.N. Koch, Master Meter Inc., Pittsburgh, Pa. | (AWWA) |
| M.J. Kebles, Las Vegas Valley Water District, Las Vegas, Nev. | (AWWA) |
| D. Krumm, Elster AMCO Water Inc., Ocala, Fla. | (AWWA) |
| R. San Giacomo, R & D Engineering P.C., Orchard Park, N.Y. | (AWWA) |
| M. Shamley, Metron–Farnier, Boulder, Colo. | (AWWA) |
| S. Swanson, Sensus Metering Systems, Pittsburgh, Pa. | (AWWA) |
| A. Watson, Elster AMCO Water Inc., Ocala, Fla. | (AWWA) |

The AWWA Standards Committee on Water Meters, which reviewed and approved this standard, had the following personnel at the time of approval:

Michael J. Kebles, *Chair*

Thomas Gwynn, *Secretary**

General Interest Members

| | |
|--|--------|
| R.C. Graff, Poway, Calif. | (AWWA) |
| D.E. Hood, M.E. Simpson Co. Inc., Valparaiso, Ind. | (AWWA) |
| M.C. Johnson, Utah State University, Logan, Utah | (AWWA) |

* Nonvoting

| | |
|---|--------|
| F.S. Kurtz,* Standards Engineer Liaison, AWWA, Denver, Colo. | (AWWA) |
| E.N. Olson,† Standards Council Liaison, Brown and Caldwell, Gold Hill, Ore. | (AWWA) |
| R.A. Richter, National Institute of Standards and Technology, Gaithersburg, Md. | (AWWA) |
| F.S. Salser Jr., Floyd S. Salser Jr. & Associates, Ocala, Fla. | (AWWA) |
| R. San Giacomo, R & D Engineering P.C., Orchard Park, N.Y. | (AWWA) |
| J.A. Welsh, Measurement Canada, Ottawa, Ont. | (AWWA) |

Producer Members

| | |
|---|--------|
| S. Bartram,† Elster AMCO Water Inc., Ocala, Fla. | (AWWA) |
| G.H. De Jarlais,† Badger Meter Inc., Milwaukee, Wis. | (AWWA) |
| L.W. Fleury Jr., Mueller Group, Smithfield, R.I. | (AWWA) |
| G. Gomez, Badger Meter Inc., Milwaukee, Wis. | (AWWA) |
| A. Hendey, Performance Meter Inc., Beaumont, Calif. | (AWWA) |
| R. Howard,† Performance Meter Inc., Banning, Calif. | (AWWA) |
| J. Jackson,† Sensus Metering Systems, Texarkana, Texas | (AWWA) |
| R.N. Koch, Master Meter Inc., Pittsburgh, Pa. | (AWWA) |
| D.J. Kullmann, Neptune Technology Group Inc., Marietta, Ga. | (AWWA) |
| M. Laird,† Metron–Farnier, Boulder, Colo. | (AWWA) |
| J. Panek Jr.,† McCrometer Inc., Rowley, Iowa | (AWWA) |
| J. Potter,* Master Meter Inc., Mansfield, Texas | (AWWA) |
| M. Shamley, Metron–Farnier, Boulder, Colo. | (AWWA) |
| S. Swanson, Sensus Metering Systems, Uniontown, Pa. | (AWWA) |
| M.A. Thomas,† Hersey Meters, Cornelius, N.C. | (AWWA) |
| G.M. Voss, McCrometer Inc., Hemet, Calif. | (AWWA) |
| A. Watson, Elster AMCO Water Inc., Ocala, Fla. | (AWWA) |

User Members

| | |
|--|---------|
| M.L. Aigen, Boston Water and Sewer Commission, Roxbury, Mass. | (NEWWA) |
| J. Alongi, Kansas City Water Services Department, Kansas City, Mo. | (AWWA) |
| W. Dunnill, Consolidated Utility District of Rutherford County, Murfreesboro, Tenn. | (AWWA) |
| W.M. Garfield, Arizona Water Company, Phoenix, Ariz. | (AWWA) |
| J.R. Grabinski, Dallas Water Utilities, Dallas, Texas | (AWWA) |

* Liaison, nonvoting

† Alternate

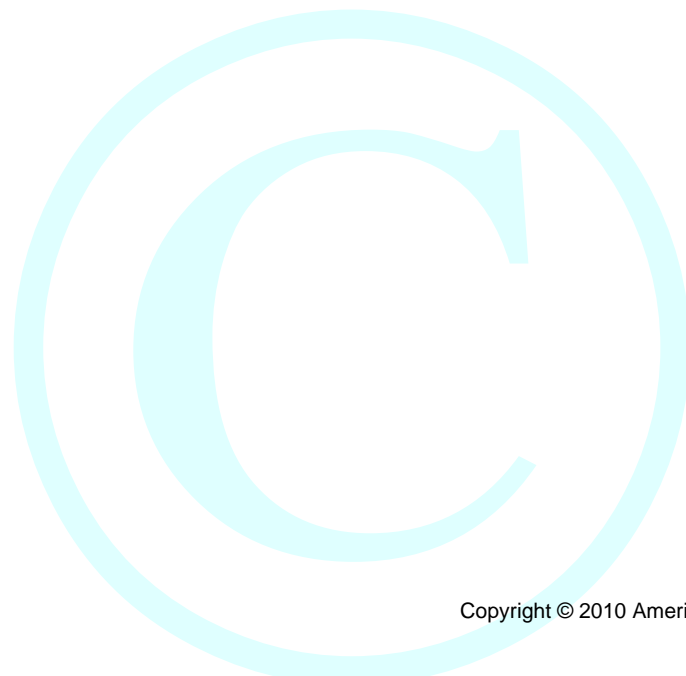
| | |
|---|--------|
| D. Griffin, City of Winnipeg Water and Waste Department, Winnipeg, Man. | (AWWA) |
| N.D. Kaufman, Truckee Donner Public Utility District, Truckee, Calif. | (AWWA) |
| M.J. Kebles, Las Vegas Valley Water District, Las Vegas, Nev. | (AWWA) |
| T.A. Kelly, Washington Suburban Sanitary Commission, Laurel, Md. | (AWWA) |
| M.S. Krause, Desert Water Agency, Palm Springs, Calif. | (AWWA) |
| G. Land, Dallas Water Utilities, Dallas, Texas | (AWWA) |
| J.A. Novak, Milwaukee Water Works, Milwaukee, Wis. | (AWWA) |
| G.E. Raymond, Water Distribution–Meter Services, Los Angeles, Calif. | (AWWA) |
| S. Solotoff, Miami–Dade Water & Sewer, Miami, Fla. | (AWWA) |
| J.H. Standi Jr., Golden State Water Company, Fontana, Calif. | (AWWA) |

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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. This edition was approved on Jan. 17, 2010.

II. Special Issues.

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

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.

* American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036.

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 field installation of the meter register assembly (Sec. 4.2.1.1) and the signal encoder assembly (Sec. 4.2.2.1) is required.
6. Whether the system is to register data in cubic feet, US gallons, or other units (Sec. 4.2.1.5).
7. 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).
8. 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).
9. Whether meter register faceplates are to be for potable water or reclaimed water (Sec. 4.2.1.10).
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. 6.3).

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

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

1. A provision for materials has been added to Sec. 4.1.

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



**American Water Works
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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.