Australian Standard®

Meters for cold potable water

Part 2: Combination meters

This Australian Standard was prepared by Committee WS/24, Meters for Cold Potable Water. It was approved on behalf of the Council of Standards Australia on 23 May 1996 and published on 5 October 1996.

The following interests are represented on Committee WS/24:

Australian Chamber of Commerce and Industry

Australian Electrical and Electronic Manufacturers Association

Brisbane City Council

Department of Natural Resources, Qld

Hunter Water Corporation

Metal Trades Industry Association of Australia

National Standards Commission

South Australian Water Corporation

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PREFACE

This Standard was prepared by the Standards Australia Committee WS/24 on Meters for Cold Potable Water to specify requirements for combination meters.

This Standard is one of a set to be published progressively, dealing with meters for cold potable water. The set, when complete, will consist of the following:

AS
3565 Meters for cold potable water
3565.1 Part 1: Volumetric chamber and turbine meters
3565.2 Part 2: Combination meters (this Standard)
3565.3 Part 3: Manifold meters (in course of preparation)

The objective of this Standard is to provide manufacturers with requirements for combination meters which may be fitted with an electronic output device (EOD) to measure cold potable water.

This Standard is to be read in conjunction with AS 3565.1, and references clauses, figures and appendices, including specific paragraphs, in AS 3565.1. When appropriate, amendments to AS 3565.1 will be published concurrently with consequential amendments to this Standard.

In the preparation of this Standard, reference was made to ISO 7858, *Measurement of water flow in closed conduits —Meters for cold potable water—Combination meters,* Part 1: 1985, *Specifications* and Part 3: 1992, *Test methods*. The assistance gained from these sources is acknowledged.

Attention is drawn to the fact that there may be legal requirements applying to water meters and that these requirements take precedence over the requirements of this Standard.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

CONTENTS

Page

SECTION 1 SCOPE AND GENERAL
1.1 SCOPE 4
1.2 INTERPRETATION 4
1.3 REFERENCED DOCUMENTS 4
1.4 DEFINITIONS 4
1.5 DESIGNATION OF SIZE 5
1.6 DESIGNATION OF CAPACITY 5
1.7 DIMENSIONS 5
1.8 MARKINGS 5
1.9 AUSTRALIAN WATER AGENCIES 5

SECTION 2 MATERIALS AND COMPONENTS
2.1 MATERIALS 6
2.2 END CONNECTIONS 6
2.3 REGISTERS 6
2.4 ELECTRONIC OUTPUT DEVICE (EOD) 7
2.5 CALIBRATION ADJUSTMENT DEVICE 7
2.6 PROTECTIVE DEVICES 7

SECTION 3 PERFORMANCE REQUIREMENTS
3.1 GENERAL 8
3.2 MEASUREMENT CLASS 8
3.3 WATERTIGHTNESS 8
3.4 CHANGEOVER FLOW RATE TEST 8
3.5 PRESSURE LOSS TEST 8
3.6 MAXIMUM PERMISSIBLE ERROR OF MEASUREMENT 8
3.7 ENDURANCE 8

SECTION 4 PERFORMANCE TESTS
4.1 TESTS AND SEQUENCE 9
4.2 APPARATUS 9

APPENDICES
A PURCHASING GUIDELINES 10
B TECHNICAL DATA 11
C AUSTRALIAN WATER AGENCIES—COMPLIANCE REQUIREMENTS . . . 13
D CHANGEOVER FLOW RATE TEST 14
E PRESSURE LOSS TEST 16
F ENDURANCE TEST 18

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STANDARDS AUSTRALIA

Australian Standard

Meters for cold potable water

Part 2: Combination meters

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard specifies requirements for combination meters with nominal flow rates not exceeding 150 kL/h and consisting of one small meter and one large meter in parallel, with a changeover device. These combination meters are intended for installation in water services, to measure within the accuracy limits of the Class, the volume of cold potable water at working temperatures and pressures not exceeding 30°C and 1400 kPa, respectively.

This Standard is applicable to combination meters which are capable of operating at working temperatures of at least 50°C and may be fitted with electronic output devices (EOD), which are self-contained and capable of continuously determining within the accuracy limits of the Class, the volume of cold potable water which has flowed through them, and which are continuously indicating the volume on a cumulative basis. Such volume is equal to either—

(a) the sum of the volumes shown on the registers of the small and large meters; or

(b) the volume shown on the single register for both the small and large meters.

NOTE: Purchasing guidelines are given in Appendix A.

1.2 INTERPRETATION Unless otherwise specifically excluded by this Standard, reference to a meter in AS 3565.1 shall, for the purpose of this Standard, be interpreted to be either—

(a) a small or large meter of a combination meter; or

(b) a combination meter.

1.3 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS
3565 Meters for cold potable water
3565.1 Part 1: Volumetric chamber and turbine meters
4087 Metallic flanges for waterworks purposes

1.4 DEFINITIONS For the purpose of this Standard, the definitions given in AS 3565.1 apply to small and large meters of combination meters while those below apply to combination meters.

1.4.1 Changeover flow rate —for a combination meter, the changeover flow rate is —

(a) Q_{cd}, for a decreasing flow rate (Q), which occurs with a sudden increase in the pressure loss, cessation of flow through the large meter and an increase in the flow rate through the small meter, in kilolitres per hour; and

(b) Q_{ci}, for an increasing flow rate (Q), which occurs with a sudden decrease in the pressure loss, commencement of flow through the large meter and a decrease or cessation of the flow rate through the small meter, in kilolitres per hour.