AS 5081—2008

Australian Standard®

Hydraulically operated automatic control valves for waterworks purposes

This Australian Standard® was prepared by Committee WS-022, Valves for Waterworks Purposes. It was approved on behalf of the Council of Standards Australia on 28 April 2008. This Standard was published on 30 June 2008.

The following are represented on Committee WS-022:

- AUSTAP
- Australian Chamber of Commerce and Industry
- Australian Electrical and Electronic Manufacturers Association
- Australian Industry Group
- Australian Stainless Steel Development Association
- Australian Water Association
- Engineers Australia
- Master Plumbers Australia
- New Zealand Water & Waste Association
- Plastics Industry Pipe Association of Australia
- Water Industry Alliance
- Water Services Association of Australia

This Standard was issued in draft form for comment as DR 07297.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Australian Standard®

Hydraulically operated automatic control valves for waterworks purposes

First published as AS 5081—2008.

Published by Standards Australia GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 8803 3

PREFACE

This Australian Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee WS-022, Valves for Waterworks Purposes, in response to a request from Water Services Association of Australia (WSAA) to provide a suitable product Standard for automatic control valves.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to provide material requirements and performance tests for metallic-bodied hydraulically operated automatic control valves for waterworks purposes, together with default compliance requirements for use by manufacturers and certification bodies.

Support and contribution is acknowledged from the Water Services Association of Australia (WSAA), consultants and manufacturers.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be 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

STANDARDS AUSTRALIA

Australian Standard

Hydraulically operated automatic control valves for waterworks purposes

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for metallic-bodied PN 16, PN 21 and PN 35 hydraulically operated, diaphragm or piston-actuated, globe or piston-style, automatic control valves for waterworks purposes and valve sizes DN 40 to DN 900 (inclusive), suitable for, but not limited to, drinking water and recycled water, with a maximum operating temperature of 40°C.

This Standard applies to automatic control valves that operate by pressure in water mains, and controlled by hydraulic or solenoid pilot valves. Where control valves incorporate solenoid pilots, limit switches or position transmitters, low-voltage electrical power supply is required for these components.

This Standard covers the following types of automatic control valves:

(a) Fixed-outlet pressure-reducing valve.

(b) Variable-outlet pressure-reducing valve.

(c) Pressure-sustaining/relief valve.

(d) Surge-anticipating valve.

(e) Altitude valve.

(f) Float valve.

(g) Rate-of-flow control valve.

(h) Non-return valve.

(i) Solenoid-control valve.

The valves are designed for installation in a horizontal or vertical position depending on the manufacturer's requirements, above-ground or below-ground in a drained chamber.

NOTE: Purchasing guidelines are given in Appendix B.

1.2 APPLICATION

Means for demonstrating compliance with this Standard are given in Appendix A.

1.3 NORMATIVE REFERENCES

The documents referred to in this Standard for normative purposes are listed in Appendix C.