

ANSI B109.4
Approved
Revised December 2016

Self-Operated Diaphragm-Type Natural Gas Service Regulators

For Nominal Pipe Size 1¼ inches (32 mm) and smaller with outlet pressures of 2 psig (13.8 kPa) and less

Secretariat

American Gas Association

400 North Capitol Street, NW 4th Floor Washington, DC 20001 U.S.A.

Catalog No. XM1602

This is a preview. Click here to purchase the full publication.

First Edition–1998 Second Edition–2016

Copyright © 2016, American Gas Association All rights reserved

Table of Contents

TAB	LE OF CONTENTS	i
DISC	CLAIMERS AND COPYRIGHT	ii
PRE	FACE	iv
	TORY OF DEVELOPMENT OF THE STANDARD	
ACC	REDITED STANDARDS COMMITTEE B109	
1.0	Scope	1
2.0	Definitions	2
3.0	General	5
4.0	Design Requirements	6
	4.1 Regulator Valve Body	6
	4.2 Diaphragm Casing Assembly	7
	4.3 Diaphragm	8
	4.4 Loading Spring	8
	4.5 Valve Linkage and Disk	8
	4.6 Orifice	9
	4.7 Exterior Surface	9
	4.8 Vent	10
	4.9 Markings	11
5.0	Qualification Test for Service Regulator Performance	12
	5.1 General.	
	5.2 Test Equipment	
	5.3 Test Procedures.	
APPE	ENDIX A: GUIDELINES FOR PRESENTATION OF REGULATOR PERFORMANCE DATA	24
APPE	ENDIX B: SI/METRIC SYMBOLS	28
APPENDIX C: U.S. (INCH-POUND) SYMBOLS		29
APPE	ENDIX D: REFERENCED STANDARDS	30
EOD	M FOD DDODOCALS ON ANSI D100 A	21

AMERICAN GAS ASSOCIATION (AGA) NOTICE AND DISCLAIMER

This document was developed through a voluntary consensus standards development process via the American National Standards Institute (ANSI) essential requirements for due process for American National Standards (Edition January 2014). While the American Gas Association (AGA) administers the process and establishes rules to promote fairness in the development of consensus, it does not write the document, and it does not independently test, evaluate or verify the accuracy or completeness of any information or the soundness of any judgments contained in this publication.

The AGA disclaims liability for any personal injury, property damages or other damages of any nature whatsoever, whether special, indirect, consequential or compensatory, directly or indirectly resulting from this publication, the use of or reliance on this publication. The AGA also makes no guarantee or warranty as to the accuracy or completeness of any information published herein.

In issuing and making this document available, the AGA is not undertaking to render professional or other services for or on behalf of any person or entity. Nor is the AGA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances.

The AGA has no power, nor does it undertake, to police or enforce compliance with the contents of this document. Nor does the AGA list, certify, test or inspect products, designs or installations for compliance with this document. Any certification or other statement of compliance with the requirements of this document shall not be attributable to the AGA and is solely the responsibility of the certifier or maker of the statement.

The AGA does not take any position with respect to the validity of any patent rights asserted in connection with any items that are mentioned in or are the subject of this publication, and the AGA disclaims liability for the infringement of any patent resulting from the use of or reliance on it. Users of this publication are expressly advised that determination of the validity of any such patent rights and the risk of infringement of such rights is entirely their own responsibility.

Users of this publication should consult applicable federal, state, and local laws and regulations. The AGA does not, through this publication, provide legal advice for any purpose or intend to urge action that is not in compliance with applicable laws and this publication may not be construed as doing so.

Changes to this document may become necessary from time to time. If changes are believed appropriate by any person or entity, such suggested changes should be communicated to AGA in writing using the form found at the end of the document titled, Form For Proposals on ANSI B109.4 and sent to: American Gas Association, ATTN: Secretariat B109, 400 North Capitol Street, NW, Suite 450, Washington, DC 20001, U.S.A. Suggested changes must include: contact information, including name, address and any corporate affiliation; full name of the document; suggested revisions to the text of the document; the rationale for the suggested revisions; and permission to use the suggested revisions in an amended publication of the document.

Copyright © 2016 American Gas Association, All Rights Reserved.

Permission is granted to republish material herein in laws or ordinances as well as regulations, administrative orders or similar documents issued by public authorities. Those desiring permission for other publication should consult the American Gas Association, ATTN: ANSI B109.4 Secretariat, 400 N. Capitol St., NW, Washington, DC, U.S.A.