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**ANSI B109.1**  
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**DIAPHRAGM-TYPE  
GAS DISPLACEMENT  
METERS  
(Under 500 Cubic Feet Per Hour Capacity)**

**Secretariat**



400 North Capitol Street, NW – 4<sup>th</sup> Floor  
Washington, DC 20001  
U.S.A.

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## PREFACE

This publication represents a basic standard for safe operation and substantial and durable construction for diaphragm-type gas displacement meters having a gas flow rating of under 500 cubic feet per hour (14.16m<sup>3</sup>/h) at 0.5 inch water column (125 Pa) differential pressure at standard conditions. This work is the result of years of experience, supplemented by extensive research. The standard is designed to help ensure efficient performance and substantial construction of equipment.

It is recognized that during any transition period to the metric system, sizes and dimensions need to be expressed in either the metric system or the inch-pound system or in both. In this document, both systems are used, with the inch-pound units given preference. In most cases, a soft conversion from existing inch-pound values is shown. Soft conversion implies a change in nomenclature only; in this document, the alternative nomenclatures (metric and inch-pound) are shown by using parentheses and can be used interchangeably. Hard conversion is used to express metric values in (closely equivalent) round inch-pound units. Bracketed values are not to be used interchangeably with the corresponding metric values.

Nothing in this standard is to be considered as in any way indicating a measure of quality beyond compliance with the provisions it contains. It is designed to allow the construction and performance of displacement meters that may exceed the various provisions specified in any respect. In its preparation, recognition was intended to be given to the possibility of improvement through ingenuity of design. As progress takes place, revisions may become necessary. When they are believed desirable, recommendations should be forwarded to the Chairman of ANSI B109 Committee, Operating and Engineering Section, American Gas Association, 400 North Capitol Street, NW, 4<sup>th</sup> Floor, Washington, DC 20001, U.S.A.

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