

SEMI F102-0306 (Reapproved 0513) GUIDE FOR SELECTING SPECIFICATIONS FOR DIMENSION OF COMPONENTS FOR SURFACE MOUNT GAS DISTRIBUTION SYSTEMS

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NOTICE: Paragraphs entitled ‘NOTE:’ are not an official part of this Standard or Safety Guideline and are not intended to modify or supersede the official Standard or Safety Guideline. These have been supplied by the global technical committee to enhance the usage of the Standard or Safety Guideline.

NOTICE: This Standard or Safety Guideline has an Inactive Status because the conditions to maintain Current Status have not been met. Inactive Standards or Safety Guidelines are available from SEMI and continue to be valid for use.

1 Purpose

1.1 This Standard establishes the guide for selecting “Specifications for Dimension of Components for Surface Mount Gas Distribution Systems.”

2 Scope

2.1 This Standard applies to Specifications for Dimension of Components for Surface Mount Gas Distribution Systems; SEMI F82, SEMI F83, SEMI F84, SEMI F85, SEMI F86, SEMI F87, SEMI F88, SEMI F89, SEMI F90, SEMI F91, SEMI F92, SEMI F93, SEMI F94, and SEMI F95.

NOTICE: SEMI Standards and Safety Guidelines do not purport to address all safety issues associated with their use. It is the responsibility of the users of the Documents to establish appropriate safety and health practices, and determine the applicability of regulatory or other limitations prior to use.

3 Referenced Standards and Documents

3.1 SEMI Standards and Safety Guidelines

SEMI F82 — Specification for Dimension of Mass Flow Controller/Mass Flow Meter for 1.125 Inch Type Surface Mount Gas Distribution Systems

SEMI F83 — Specification for Dimension of Two Port Components (Except MFC/MFM) for 1.125 Inch Type Two Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F84 — Specification for Dimension of Three Port Components (Except MFC/MFM) for 1.125 Inch Type Two Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F85 — Specification for Dimension of One Port Components for 1.125 Inch Type Four Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F86 — Specification for Dimension of Two Port Components (Except MFC/MFM) for 1.125 Inch Type Four Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F87 — Specification for Dimension of Three Port Components (Except MFC/MFM) for 1.125 Inch Type Four Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F88 — Specification for Dimension of Standard Size Mass Flow Controllers and Mass Flow Meters for 1.5 Inch Type Surface Mount Gas Distribution Systems

SEMI F89 — Specification for Dimension of Compact Size Mass Flow Controllers and Mass Flow Meters for 1.5 Inch Type Surface Mount Gas Distribution Systems

SEMI F90 — Specification for Dimension of Standard Size Two Port Components (Except MFC/MFM) for 1.5 Inch Type Two Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F91 — Specification for Dimension of Compact Size Two Port Components (Except MFC/MFM) for 1.5 Inch Type Two Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F92 — Specification for Dimension of Compact Size Three Port Components for 1.5 Inch Type Two Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F93 — Specification for Dimension of One Port Components for 1.5 Inch Type Four Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F94 — Specification for Dimension of Two Port Components (Except MFC/MFM) for 1.5 Inch Four Fastener Configuration Type Surface Mount Gas Distribution Systems

SEMI F95 — Specification for Dimension of Three Port Components for 1.5 Inch Four Fastener Configuration Type Surface Mount Gas Distribution Systems

NOTICE: Unless otherwise indicated, all documents cited shall be the latest published versions.

4 Explanation of Standards

4.1 Refer to Table 1 and Table 2, categorized by 1.25 Inch Type and 1.5 Inch Type.

4.2 These 14 Standards specify dimensions of components in surface mount gas distribution systems. Each component is mounted on a base block that is referred to as a substrate. Components may be used independently, but typically, they are rather mounted on a same or series of substrate(s) to make up a gas distribution line. These gas lines, in turn, comprise a surface mount gas distribution system.

4.3 A typical gas distribution line consists of valves, regulators, transducers, filters and mass flow controllers (MFCs). Dimensions of each component are specified in the following Standards:

SEMI F82 — Specification for Dimension of Mass Flow Controller/Mass Flow Meter for 1.125 Inch Type Surface Mount Gas Distribution Systems

SEMI F83 — Specification for Dimension of Two Port Components (Except MFC/MFM) for 1.125 Inch Type Two Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F84 — Specification for Dimension of Three Port Components (Except MFC/MFM) for 1.125 Inch Type Two Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F85 — Specification for Dimension of One Port Components for 1.125 Inch Type Four Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F86 — Specification for Dimension of Two Port Components (Except MFC/MFM) for 1.125 Inch Type Four Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F87 — Specification for Dimension of Three Port Components (Except MFC/MFM) for 1.125 Inch Type Four Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F88 — Specification for Dimension of Standard Size Mass Flow Controllers and Mass Flow Meters for 1.5 Inch Type Surface Mount Gas Distribution Systems

SEMI F89 — Specification for Dimension of Compact Size Mass Flow Controllers and Mass Flow Meters for 1.5 Inch Type Surface Mount Gas Distribution Systems

SEMI F90 — Specification for Dimension of Standard Size Two Port Components (Except MFC/MFM) for 1.5 Inch Type Two Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F91 — Specification for Dimension of Compact Size Two Port Components (Except MFC/MFM) for 1.5 Inch Type Two Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F92 — Specification for Dimension of Compact Size Three Port Components for 1.5 Inch Type Two Fastener Configuration Surface Mount Gas Distribution Systems

SEMI F93 — Specification for Dimension of One Port Components for 1.5 Inch Type Four Fastener Configuration Surface Mount Gas Distribution Systems