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**Modular Component
Interfaces for Surface-
Mount Fluid Distribution
Components - Part 1:
Elastomeric Seals**

Approved 13 June 2002



ISA—The Instrumentation,
Systems, and

Automation Society

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Modular Component Interfaces for Surface-Mount Fluid Distribution Components—Part 1: Elastomeric Seals

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1 Scope

This standard applies to all types of surface-mount fluid distribution components with elastomeric sealing devices used within process analyzer and sample-handling systems. This includes components such as valves, filters, regulators, transducers, and controllers.

The scope of this document is limited as follows:

- a) This document addresses only surface-mount fluid distribution components and proper sealing methods. This document is limited to sealing methods using elastomeric material for the seals.
- b) The designs of the actual system components and the flow substrate are not specified in this standard. Any indication of mounting direction or other indexing is left to the manufacturer as required for its equipment.
- c) Users shall be aware that, based on the stream conditions of their processes, other technologies and components may be readily available.
- d) This standard does not address the effects of various stream conditions on the technical functionality of the component.
- e) This standard does not address maintenance concerns for the components.
- f) This standard does not refer to design issues pertaining to specific safety requirements. These issues shall be referenced to other standards, organizations, and recommended guidelines.
- g) International, national, and local codes, regulations, and laws shall be consulted to ensure that each component meets the user's regulatory requirements.

2 Purpose

This document establishes properties and physical dimensions that define the interface for surface-mount fluid distribution components with elastomeric sealing devices used within process analyzer and sample-handling systems. The interface controls the dimensions and location of the sealing surfaces to allow change of just one element of the system without modification of the entire system. This is what makes the system modular from both a design and a maintenance standpoint.

3 Definitions

3.1 modular interface:

the boundary between an independently operable part of a flow system and the flow substrate to which it is connected.

3.2 surface finish:

the final surface specifications of the substrate block, interface plate, sealing grooves, and seal devices.

3.3 surface mount:

the arrangement of independent flow conditioning system modules upon a defined flow substrate.

4 References

At the time of publication, the editions indicated in this clause were valid. All standards are subject to revision, and parties to agreements based on this document are encouraged to investigate the possibility of applying the most recent editions of the standards indicated in this clause. Members of the IEC and