

ANSI/ISA-S75.04-1995

Approved October 6, 1995
(Revision of ISA-S75.04-1992)

American National Standard

**Face-to-Face Dimensions
for Flangeless
Control Valves
(ANSI Classes 150,
300, and 600)**



ANSI/ISA-S75.04, Face-to-Face Dimensions for Flangeless Control Valves (ANSI Classes 150, 300, and 600)

ISBN: 1-55617-569-8

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1 Scope

1.1 This standard applies to flangeless control valves using a full ball or a segment of a ball and other rotary-stem or sliding-stem flangeless control valves, sizes 3/4 inch (20 mm) through 24 inches (600 mm) for ANSI Classes 150 through 600.

1.2 The face-to-face dimensions listed apply only to control valves that will be bolted between flanges.

1.3 This standard is not intended to include butterfly valves.

2 Purpose

2.1 The purpose of this standard is to aid users in their piping designs for flangeless control valves by providing valve face-to-face dimensions without giving special consideration to the equipment manufacturer to be used.

3 Definitions

3.1 For definitions of terms used in this standard, see ANSI/ISA-S75.05, "Control Valve Terminology."

4 Bibliography

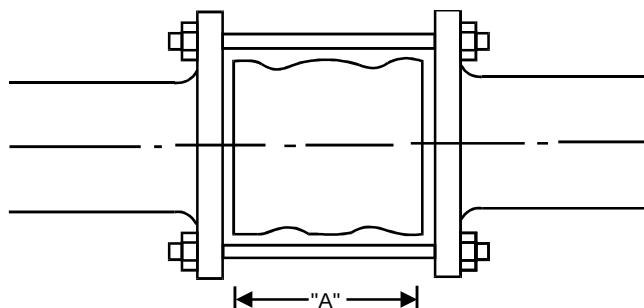
4.1 International Electrotechnical Commission (IEC) Publication 534, Industrial-Process Control Valves, Part 3, Section Two-1983, "Face-to-Face Dimensions of Flangeless Control Valves Except Wafer Butterfly Valves."

5 Dimensional Data

5.1 Face-to-Face Dimensions for Flangeless Control Valves. See [Table 1](#).

Table 1 — Face-to-face dimensions for flangeless control valves

Nominal Valve Size		PN 20, 50 & 100 ANSI Classes 150, 300 & 600		Tolerance	
mm	inches	Dimension "A"		mm	inches
		mm	inches		
20	3/4	76	3.00	±1.6	±0.062
25	1	102	4.00	±1.6	±0.062
40	1-1/2	114	4.50	±1.6	±0.062
50	2	124	4.88	±1.6	±0.062
80	3	165	6.50	±1.6	±0.062
100	4	194	7.62	±1.6	±0.062
150	6	229	9.00	±1.6	±0.062
200	8	243	9.56	±1.6	±0.062
250	10	297	11.69	±1.6	±0.062
300	12	338	13.31	±3.2	±0.125
350	14	400	15.75	±3.2	±0.125
400	16	400	15.75	±3.2	±0.125
450	18	457	18.00	±3.2	±0.125
500	20	508	20.00	±3.2	±0.125
600	24	610	24.00	±3.2	±0.125



NOTE: Dimension "A" does not include line gaskets; it is a dimension for only the valve itself.

Annex A

This annex is not part of ISA-S75.04, but it is included to facilitate its use.

Face-to-face dimensions to start this standard were obtained from Scientific Apparatus Makers Association (SAMA), Proposed Standard PMC 23.3e-1975, "Face-to-Face Dimensions of Flangeless Control Valves." Dimensions for metrically sized valves are nominal conversions that are conventionally used in the Manufacturers Standardization Society (MSS) of the Valve and Fitting Industry (MSS-SP86-1981), International Standards Organization (ISO), and International Electrotechnical Commission (IEC).

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