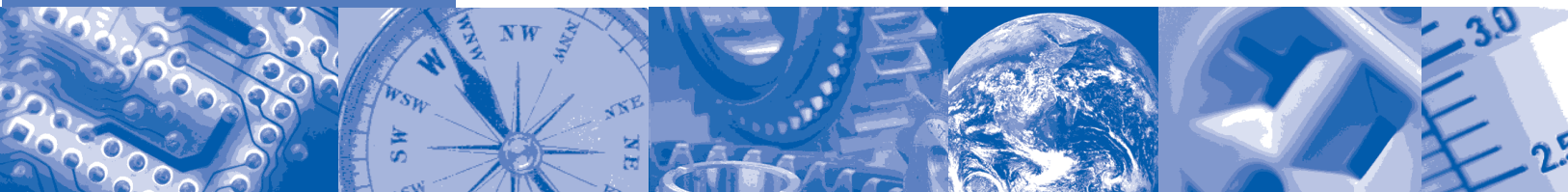


ANSI/ISA-75.16-1994

Formerly ANSI/ISA-S75.16-1994



Face-to-Face Dimensions for Flanged Globe-Style Control Valve Bodies (ANSI Classes 900, 1500, and 2500)



**ISA—The Instrumentation,
Systems, and
Automation Society**

Approved 24 April 1994

ANSI/ISA-75.16-1994, Face-to-Face Dimensions for Flanged Globe-Style Control Valve Bodies
(ANSI Classes 900, 1500, and 2500)

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1 Scope

1.1 This standard applies to flanged control valves, sizes 15 mm (1/2 inch) through 450 mm (18 inches), having top, top and bottom, port, or cage guiding.

2 Purpose

2.1 The purpose of this standard is to aid users in their piping design by providing ANSI Classes 900, 1500, and 2500, raised-face, flanged control valve dimensions, without giving special consideration to the equipment manufacturer to be used.

2.2 The short-long dimensions provided in [Table 1](#) clarify [Section 2.1](#) by consolidating the diversity of existing manufacturers' lengths into two sets of dimensions for each valve size. Before using either the short or long dimension, the piping designer should confirm with the selected valve manufacturer which dimension is correct for the valve(s) being supplied.

3 Definitions

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

4 Bibliography

The following references are included for the definition of pressure classes, flange dimensions, material identification, and cross-reference information. They were developed by the American Society of Mechanical Engineers (ASME).

4.1 American National Standards Institute, Inc. (ANSI), Standard ANSI/ASME B16.34-1988, "Valves — Flanged, Threaded, and Welding End."

4.2 American National Standards Institute, Inc., Standard ANSI/ASME B16.5-1988, "Pipe Flanges and Flanged Fittings."

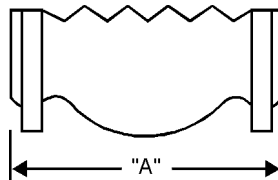
4.3 American National Standards Institute, Inc., Standard ANSI/ASME B16.10-1986, "Face-to-Face and End-to-End Dimensions of Valves."

5 Dimensional data

5.1 For face-to-face dimensions for flanged globe-style control valves, [see Table 1](#).

Table 1 — Face-to-face dimensions for raised-face, flanged globe-style control valves

Nominal Valve Size		PN 150 (ANSI Class 900)				PN 250 (ANSI Class 1500)				PN 420 (ANSI Class 2500)				Tolerance	
		Dimension "A"				Dimension "A"				Dimension "A"					
		mm		inches		mm		inches		mm		inches			
mm	inches	Short	Long	Short	Long	Short	Long	Short	Long	Short	Long	Short	Long	mm	inches
15	1/2	273	292	10.75	11.50	273	292	10.75	11.50	308	318	12.12	12.50	±1.6	±0.062
20	3/4	273	292	10.75	11.50	273	292	10.75	11.50	308	318	12.12	12.50	±1.6	±0.062
25	1	273	292	10.75	11.50	273	292	10.75	11.50	308	318	12.12	12.50	±1.6	±0.062
40	1-1/2	311	333	12.25	13.12	311	333	12.25	13.12	359	381	14.12	15.00	±1.6	±0.062
50	2	340	375	13.38	14.75	340	375	13.38	14.75	—	400	—	16.25	±1.6	±0.062
65	2-1/2	—	410	—	16.12	—	410	—	16.12	—	441	—	17.38	±1.6	±0.062
80	3	387	441	15.25	17.38	406	460	16.00	18.12	498	660	19.62	26.00	±1.6	±0.062
100	4	464	511	18.25	20.12	483	530	19.00	20.87	575	737	22.62	29.00	±1.6	±0.062
150	6	600	714	21.87	28.12	692	768	24.00	30.25	819	864	32.25	34.00	±1.6	±0.062
200	8	781	914	30.75	36.00	838	972	33.00	38.25	—	1022	—	40.25	±1.6	±0.062
250	10	864	991	34.00	39.00	991	1067	39.00	42.00	1270	1372	50.00	54.00	±1.6	±0.062
300	12	1016	1130	40.00	44.50	1130	1219	44.50	48.00	1321	1575	52.00	62.00	±3.2	±0.125
350	14	—	1257	—	49.50	—	1257	—	49.50	—	—	—	—	±3.2	±0.125
400	16	—	1422	—	56.00	—	1422	—	56.00	—	—	—	—	±3.2	±0.125
450	18	—	1727	—	68.00	—	1727	—	68.00	—	—	—	—	±3.2	±0.125



Appendix

This appendix is not part of ISA-S75.16, but is included to facilitate its use.

The ANSI standards listed in the bibliography contain valve body design information in addition to face-to-face dimensions. Dimensions for metrically sized valves are nominal conversions that are conventionally used in the Manufacturers Standardization Society (MSS) of the Valve and Fitting Industry's Publication MSS-SP86-1987, and in International Standards Organization (ISO) and International Electrotechnical Commission (IEC) documents.

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