

Bulletin
314.01-3NE
January 2016

NOR'EAST™

CONTROLS



SINGLE SEATED CAGE VALVES

SERIES 1400 MODEL 1401



Previously manufactured by
Dezurik® and Honeywell®

Description:

The Model 1401 valve combines a heavy-duty, single-seated globe valve with a pneumatic diaphragm actuator for low and ultra-low flow applications. The actuator is spring type which provides either direct or reverse action as specified.

Accessories:

- Pneumatic and electro-pneumatic positioners
- Top or side-mounted Handwheel
- Micro Switch open/closed switches
- Solenoids
- Transducers
- Air sets

SPECIFICATIONS

Actuator

Type	Pneumatic diaphragm-actuated. Type 01. Direct or reverse acting, spring.
Construction	Pressed steel diaphragm case plates and heavy duty, cast iron yoke. Finished in blue corrosion-resistant enamel.
Diaphragm Material	Molded of Buna N with a Nylon insert. Ambient temperature range of -40° -180°F (-40° -82°C). Other materials are available for higher or lower temperature ranges.
Spring	Totally enclosed. Range: 3-15 psi (21-100 kPa) standard - for other ranges, see actuator shutoff capabilities chart.
Air Pressure (Air-to-diaphragm)	Normal: 18 or 25 psi (124 or 241 kPa) Maximum: 50 psi (344 kPa)
Air Connections	1/4" NPT. Other sizes on application.

Body

Type	Single-seated, unbalanced, straight-through, globe type.
Material	Cast iron, carbon steel or stainless steel. Other alloys available as options.
Sizes	Threaded ends: 0.5, 0.75, 1, 1.5 and 2" (15, 20, 25, 40 and 50 mm). Flanged ends : 1, 1.5 and 2" (25, 40 and 50 mm)
Ratings	Cast iron with threaded ends: 250 lb. ANSI B16-1 in 0.5, 0.75, 1, 1.5 and 2" (15, 20, 25, 40 and 50 mm). Cast iron with flanged ends: 125 and 250 lb. ANSI B16-1 in 1" (25mm) size. Carbon steel and stainless steel with threaded ends: 600 lb. ANSI B16.34 in 0.5, 0.75, 1, 1.5 and 2" (15, 20, 25, 40 and 50mm). Carbon and stainless steel with flanged ends: 150, 300 and 600 lb. ANSI B16.34.

SPECIFICATIONS

Bonnet

Type	Plain: For process temperatures from 32° to 250°F (0°-232°C). Die-formed graphite packing can be used for temperatures up to 750°F (399°C). Extension Column: For process temperatures from -150° to 32°. (-101°-0°C). Radiation Fin: For process temperatures from 450° to 750°F (232°-399°C). Not furnished with cast iron bodies. Bellows seal: Used when a positive stem seal is required, for process temperatures up to 750°F (399°C).
Packing	Bolted Box: PTFE v-ring or die-formed graphite.

Trim

Material	Stainless steel type 316 standard. Also available in Monel, Alloy 20, Hastelloy C and solid Stellite*. Other materials available as options.
Plugs	Single-seated throttling plugs with either equal percentage or linear characteristics. Selections given in Cv (Kv) Chart.
Valve Travel	Low flow: 9/16" (14mm) Ultra-low flow: 1/4" (6mm)
Leakage	Maximum allowable leakage under factory testing is 0.01% of rated Cv (Kv) for metal-seated design ANSI B16.104 Class IV. Maximum allowable pressure drop for soft seated design 400 psi (2760 kPa).

* Stellite is a registered trademark of Stooddy Deloro Stellite, Inc.

ORDERING DATA

Please Specify:

- Valve Model 1401
- Flow (low or ultra-low)
- Body Material
- Size
- End connections
- Bonnet
- Packing
- Trim material
- Spring range
- Actuator size
- Action (air-to-close or air-to-open)

Note: Specifications subject to change without notice.

FLOW COEFFICIENTS

Equal Percentage Contour, Threaded Ends Cv/Kv Values

Valve Size	Equal Percentage Contour						
	Full Port	1 Size Reduced	2 sizes Reduced	3 sizes Reduced	4 sizes Reduced	5 sizes Reduced	6 sizes Reduced
<u>5"</u> 15mm	<u>4.0"</u> 3.5	<u>2.5</u> 2.2	<u>1.6</u> 1.4	<u>0.63</u> 0.54	-	-	-
<u>0.75"</u> 20mm	<u>8.0</u> 6.9	<u>6.3</u> 5.4	<u>4.0</u> 3.5	<u>2.5</u> 2.2	<u>1.6</u> 1.4	<u>0.63</u> 0.54	-
<u>1"</u> 25mm	<u>11.0</u> 9.5	<u>8.0</u> 6.9	<u>6.3</u> 5.4	<u>4.0</u> 3.5	<u>2.5</u> 2.2	<u>1.6</u> 1.4	<u>0.63</u> 0.54
<u>1.5"</u> 40mm	<u>13.5</u> 11.7	<u>10.0</u> 8.7	<u>8.0</u> 6.9	<u>4.0</u> 3.5	<u>1.6</u> 1.4	-	-
<u>2"</u> 50mm	<u>13.9</u> 12	<u>10.8</u> 9.3	<u>8.0</u> 6.9	<u>4.0</u> 3.5	<u>1.6</u> 1.4	-	-

Equal Percentage Contour, Flanged Ends Cv/Kv Values

Valve Size	Equal Percentage Contour						
	Full Port	1 Size Reduced	2 sizes Reduced	3 sizes Reduced	4 sizes Reduced	5 sizes Reduced	6 sizes Reduced
<u>1"</u> 26mm	<u>11.0</u> 9.5	<u>8.0</u> 6.9	<u>6.3</u> 5.4	<u>4.0</u> 3.5	<u>2.5</u> 2.2	<u>1.6</u> 1.4	<u>0.63</u> 0.54
<u>1.5"</u> 40mm	<u>12.5</u> 10.5	<u>10.0</u> 8.7	<u>8.0</u> 6.9	<u>4.0</u> 3.5	<u>1.6</u> 1.4	-	-
<u>2"</u> 50mm	<u>12.7</u> 11.0	<u>10.8</u> 9.3	<u>8.0</u> 6.9	<u>4.0</u> 3.5	<u>1.6</u> 1.4	-	-

Equal Percentage Contour, Flanged Ends Cv/Kv Values

Valve Size	Equal Percentage Contour				
	Full Port	1 Size Reduced	2 sizes Reduced	3 sizes Reduced	4 sizes Reduced
<u>5"</u> 15mm	<u>4.0"</u> 3.5	<u>1.6</u> 1.4	<u>0.63</u> 0.54	<u>0.25</u> 0.22	-
<u>0.75"</u> 20mm	<u>6.3</u> 5.4	<u>4.0</u> 3.5	<u>1.60</u> 1.4	<u>0.63</u> 0.54	<u>0.25</u> 0.22
<u>1"</u> 26mm	<u>6.3</u> 5.4	<u>4.0</u> 3.5	<u>1.6</u> 1.4	<u>0.63</u> 0.54	<u>0.25</u> 0.22

Note: Cv values = Flow in GPM of water at 1 psi pressure drop.
Kv values = Flow in M³/hour of water at 100 kPa pressure drop.

FLOW COEFFICIENTS

Equal Percentage Contour, Flanged Ends Cv/Kv Values

Valve Size	Equal Percentage Contour				
	Full Port	1 Size Reduced	2 sizes Reduced	3 sizes Reduced	4 sizes Reduced
<u>1"</u> 25mm	<u>6.3</u> 5.4	<u>4.0</u> 3.5	<u>1.6</u> 1.4	<u>0.63</u> 0.54	<u>0.25</u> 0.22

Linear Contoured, Threaded Ends Cv/Kv Values

Valve Size	Equal Percentage Contour				
	Full Port	1 Size Reduced	2 sizes Reduced	3 sizes Reduced	4 sizes Reduced
<u>5"</u> 15mm	<u>4.0"</u> 3.5	<u>1.6</u> 1.4	<u>0.63</u> 0.54	-	-
<u>0.75"</u> 20mm	<u>9.1</u> 7.9	<u>4.0</u> 3.5	<u>1.6</u> 1.4	<u>0.63</u> 0.54	-
<u>1"</u> 25mm	<u>12.9</u> 11.2	<u>9.1</u> 7.9	<u>4.0</u> 3.5	<u>1.6</u> 1.4	<u>0.63</u> 0.54
<u>1.5"</u> 40mm	<u>14.2</u> 12.3	<u>9.9</u> 8.6	<u>4.0</u> 3.5	<u>1.6</u> 1.4	-
<u>2"</u> 50mm	<u>16.0</u> 13.8	<u>14.7</u> 12.7	<u>10.5</u> 9.1	<u>4.0</u> 3.5	<u>1.6</u> 1.4

Linear Contoured, Flanged ends Cv/Kv Values

Valve Size	Equal Percentage Contour				
	Full Port	1 Size Reduced	2 sizes Reduced	3 sizes Reduced	4 sizes Reduced
<u>1"</u> 25mm	<u>12.9</u> 11.2	<u>9.1</u> 7.9	<u>4.0</u> 3.5	<u>1.6</u> 1.4	<u>0.63</u> 0.54
<u>1.5"</u> 40mm	<u>13.2</u> 11.9	<u>10.0</u> 8.7	<u>4.0</u> 3.5	<u>1.6</u> 1.4	-
<u>2"</u> 50mm	<u>14.6</u> 12.6	<u>13.5</u> 11.7	<u>9.6</u> 8.3	<u>4.0</u> 3.5	<u>1.6</u> 1.4

Ultra Low -Flow Trim Linear Contoured, Thread or Flanged Ends Cv/Kv Values

Valve Size	Equal Percentage Contour				
	Full Port	1 Size Reduced	2 sizes Reduced	3 sizes Reduced	4 sizes Reduced
<u>5"</u> 15mm	<u>1.0"</u> 0.9	<u>0.40</u> 0.35	<u>0.16</u> 0.14	<u>0.071</u> 0.061	<u>0.025</u> 0.022
<u>0.75"</u> 20mm	<u>1.0</u> 0.9	<u>0.40</u> 0.35	<u>0.16</u> 0.14	<u>0.071</u> 0.061	<u>0.025</u> 0.022
<u>1"</u> 25mm	<u>1.0</u> 0.9	<u>0.40</u> 0.35	<u>0.16</u> 0.14	<u>0.071</u> 0.061	<u>0.025</u> 0.022

Note: Cv values = Flow in GPM of water at 1 psi pressure drop.
Kv values = Flow in M³/hour of water at 100 kPa pressure drop.

ACTUATOR SHUTOFF CAPABILITIES

Air-to-Close (Spring-to-Open)

Valve Size			Flow Coefficient Cv/Kv					
			=% V-Port	=% V-Port	=% & Lin. Contour	=% V-Port	=% & Lin. Contour	=% Lin. Contour
<u>0.5</u> 15mm	<u>0.75"</u> 20mm	<u>1"</u> 25mm	<u>0.25</u> 0.22	<u>0.63</u> 0.54	<u>0.63</u> 0.54	<u>1.6</u> 1.4	<u>1.6</u> 1.4	<u>2.5</u> 2.2
<u>1.5"</u> 40mm			-	-	-	<u>1.6</u> 1.4	<u>1.6</u> 1.4	-
<u>2"</u> 50mm			-	-	-	<u>1.6</u> 1.4	<u>1.6</u> 1.4	-
Actuator Size	Air supply Psig/KPA	Spring Range psig/kPa	=% V-Port	=% V-Port	=% & Lin. Contour	=% V-Port	=% & Lin. Contour	=% Lin. Contour
9	<u>18</u> 124	<u>3-15</u> 21-103	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>530</u> 3560	<u>1145</u> 7890	<u>530</u> 3650
		<u>2-14"</u> 14-69"	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>830</u> <u>5720</u>	<u>1480</u> 10200	<u>830</u> 5720
		<u>3-9</u> 21-62	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>2-6</u> 14-41	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
11	<u>18</u> 124	<u>3-15</u> 21-103	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1015</u> 6990	<u>1480</u> 10200	<u>1480</u> 10200
		<u>2-14"</u> 14-69"	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>3-9</u> 21-62	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>2-6</u> 14-41	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
9	<u>35</u> 241	<u>3-15</u> 21-103	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>2-14"</u> 14-69"	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>3-9</u> 21-62	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>2-6</u> 14-41	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>6-30</u> 41-207	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1135</u> 7820	<u>1480</u> 10200	<u>1135</u> 7820
11	<u>35</u> 241	<u>3-15</u> 21-103	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>2-14"</u> 14-69"	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>3-9</u> 21-62	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>2-6</u> 14-41	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200

* These are 3-15 psig (21-103kPa) springs set to increase maximum pressure differential

Note: These shutoff ratings are the maximum permissible for the specified actuator and spring ranges.
Further limitations by the body pressure rating per ANSI B16.5 may occur. For ultra-low differentials, see pg 9

ACTUATOR SHUTOFF CAPABILITIES

Air-to-Close (Spring-to-Open), Continued

Valve Size			Flow Coefficient Cv/Kv					
			=% V-Port	=% & Lin. Contour	=%, V- Port Lin Contour	=% & Lin. Contour	=% & Lin. Contour	=% & Lin. Contour
<u>0.5</u> 15mm	<u>0.75"</u> 20mm	<u>1"</u> 25mm	<u>4.0</u> 3.5	<u>4.0</u> 3.5	<u>6.3</u> 5.4	<u>8.0</u> 6.9	<u>11.0</u> 75.8	-
<u>1.5"</u> 40mm			<u>4.0</u> 3.5	<u>4.0</u> 3.5	<u>8.0</u> 3.5	<u>9.9</u> <u>10.00</u> 8.6 8.7	-	<u>12.1</u> <u>13.7</u> <u>10.5</u> 11.9 <u>14.2</u> 12.3
<u>2"</u> 50mm			<u>4.0</u> 3.5	<u>4.0</u> 3.5	<u>8.0</u> 6.9	<u>9.9</u> <u>10.00</u> 8.6 8.7 <u>10.5</u> <u>10.8</u> 9.1 9.3	<u>135</u> <u>14.7</u> 11.7 12.7	<u>12.7</u> <u>13.5</u> 10.9 11.7 <u>14.6</u> <u>16.0</u> 12.6 13.8
Actuator Size	Air supply Psig/KPA	Spring Range psig/kPa	=% V-Port	=% & Lin. Contour	=% & Lin. Contour	=% & Lin. Contour	=% & Lin. Contour	=% Lin. Contour
9	<u>18</u> 124	<u>3-15</u> 21-103	<u>295</u> 2030	<u>530</u> 3650	<u>140</u> 965	<u>140</u> 965	<u>90</u> 620	<u>70</u> 480
		<u>2-14"</u> 14-69"	<u>475</u> 3270	<u>830</u> 5720	<u>240</u> 1650	<u>240</u> 1650	<u>165</u> 1140	<u>135</u> 930
		<u>3-9</u> 21-62	<u>1365</u> 9400	<u>1480</u> 10200	<u>740</u> 5100	<u>740</u> 5100	<u>530</u> 3560	<u>435</u> 3130
		<u>2-6</u> 14-41	<u>1480</u> 10200	<u>1480</u> 10200	<u>300</u> 2070	<u>300</u> 2070	<u>775</u> 5340	<u>650</u> 4480
11	<u>18</u> 124	<u>3-15</u> 21-103	<u>580</u> 4000	<u>1480</u> 10200	<u>455</u> 3130	<u>455</u> 3130	<u>210</u> 1450	<u>175</u> 12010
		<u>2-14"</u> 14-69"	<u>860</u> 5930	<u>1480</u> 10200	<u>1230</u> 8470	<u>1230</u> 8470	<u>325</u> 2240	<u>275</u> 1890
		<u>3-9</u> 21-62	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>890</u> 6130	<u>770</u> 5310
		<u>2-6</u> 14-41	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1230</u> 8470	<u>1070</u> 7370
9	<u>35</u> 241	<u>3-15</u> 21-103	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1375</u> 9780	<u>1165</u> 8030
		<u>2-14"</u> 14-69"	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1230</u> 8470
		<u>3-9</u> 21-62	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>2-6</u> 14-41	<u>655</u> <u>4510</u>	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>6-30</u> 41-207	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1135</u> 7820	<u>1480</u> 10200	<u>1135</u> 7820
11	<u>35</u> 241	<u>3-15</u> 21-103	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>2-14"</u> 14-69"	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>3-9</u> 21-62	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>2-6</u> 14-41	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200

ACTUATOR SHUTOFF CAPABILITIES

Air-to-Open (Spring -to-Close)

Valve Size			Flow Coefficient Cv/Kv					
			=% V-Port	=% V-Port	=% & Lin. Contour	=% V-Port	=% & Lin. Contour	=% & Contour
<u>0.5</u> 15mm	<u>0.75"</u> 20mm	<u>1"</u> 25mm	<u>0.25</u> 0.22	<u>0.63</u> 0.54	<u>0.63</u> 0.54	<u>1.6</u> 1.4	<u>1.6</u> 1.4	<u>2.5</u> 2.2
<u>1.5"</u> 40mm			-	-	-	<u>1.6</u> 1.4	<u>1.6</u> 1.4	-
<u>2"</u> 50mm			-	-	-	<u>1.6</u> 1.4	<u>1.6</u> 1.4	-
Actuator Size	Air supply Psig/KPA	Spring Range psig/kPa	=% V-Port	=% V-Port	=% & Lin. Contour	=% V-Port	=% & Lin. Contour	=% Lin. Contour
9	<u>18</u> 124	<u>3-15</u> 21-103	<u>1480</u> 10200	<u>1265</u> 8720	<u>1480</u> 10200	<u>595</u> 4100	<u>1265</u> 8720	<u>595</u> 4100
		<u>5.5-18"</u> 38-12"	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1385</u> 9540	<u>1480</u> 10200	<u>1385</u> 9540
		<u>3-9</u> 21-62	<u>1480</u> 10200	<u>1265</u> 8720	<u>1480</u> 10200	<u>595</u> 4100	<u>1265</u> 8720	<u>595</u> 4100
		10.5-18 72-124	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
11	<u>18</u> 124	<u>3-15</u> 21-103	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1075</u> 7410	<u>1480</u> 10200	<u>1075</u> 7410
		<u>6-18"</u> 41-124"	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>3-9</u> 21-62	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1075</u> 7410	<u>1480</u> 10200	<u>1075</u> 7410
		10-16 69-110	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
9	<u>35</u> 241	<u>6-30</u> 138-234	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
		<u>20-34"</u> 138-234	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200
11	<u>35</u> 241	<u>14-23</u> 96-158	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200

* These are 3-15 psig (21-103kPa) springs set to increase maximum pressure differential

Note: These shutoff ratings are the maximum permissible for the specified actuator and spring ranges.
Further limitations by the body pressure rating per ANSI B16.5 may occur. For ultra-low differentials, see pg 9

ACTUATOR SHUTOFF CAPABILITIES

Air-to-Open (Spring-to-Close), Continued

Valve Size			Flow Coefficient Cv/Kv					
			=% V-Port	=% & Lin. Contour	=% & V-Port & Lin. Contour	=% & Lin. Contour	=% & Lin. Contour	=% & Lin. Contour
<u>0.5</u> 15mm	<u>0.75"</u> 20mm	<u>1"</u> 25mm	<u>4.0</u> 3.5	<u>4.0</u> 3.5	<u>6.3</u> 5.4	<u>8.0</u> 6.9	<u>11.0</u> 75.8	-
<u>1.5"</u> 40mm			<u>4.0</u> 3.5	<u>4.0</u> 3.5	<u>8.0</u> 6.9	<u>9.9</u> <u>10.0</u> 8.6 8.7	-	12.1 <u>13.7</u> 10.5 11.9 <u>14.2</u> 12.3
<u>2"</u> 50mm			<u>4.0</u> 3.5	<u>4.0</u> 3.5	<u>8.0</u> 6.9	<u>9.6</u> <u>10.0</u> 8.3 8.7 <u>10.5</u> <u>10.8</u> 9.1 9.3	13.5 <u>14.7</u> 11.7 12.7	12.7 <u>13.5</u> 10.9 11.7 <u>14.6</u> <u>16.0</u> 12.6 13.8
Actuator Size	Air supply Psig/KPA	Spring Range psig/kPa	=% V-Port	=% V-Port	=% & V-Port & Lin. Contour	=% & Lin. Contour	=% & Lin. Contour	=% Lin. Contour
9	<u>18</u> 124	<u>3-15</u> 21-103	<u>330</u> 2270	<u>595</u> 4100	<u>160</u> 1100	<u>160</u> 1100	<u>105</u> 723	<u>85</u> <u>586</u>
		<u>5.5-18"</u> 38-12"	<u>810</u> 6680	<u>1385</u> 9540	<u>425</u> 2930	<u>425</u> 2930	<u>300</u> 2070	<u>255</u> 1760
		<u>3-9</u> 21-62	<u>330</u> 2270	<u>595</u> 4100	<u>160</u> 1100	<u>160</u> 1100	<u>105</u> 723	<u>85</u> <u>586</u>
		10.5-18 72-124	<u>1480</u> 10200	<u>1480</u> 10200	<u>480</u> 10200	<u>965</u> 6650	<u>695</u> 4790	<u>600</u> 4130
11	<u>18</u> 124	<u>3-15</u> 21-103	<u>620</u> 4270	<u>1075</u> 7400	<u>320</u> 2200	<u>320</u> 2200	<u>215</u> 1480	<u>185</u> 1270
		<u>6-18"</u> 41-124"	<u>1480</u> 10200	<u>1480</u> 10200	<u>835</u> 6760	<u>835</u> 6750	<u>580</u> 4000	<u>500</u> 3450
		<u>3-9</u> 21-62	<u>620</u> 4270	<u>1075</u> 7400	<u>320</u> 2200	<u>320</u> 2200	<u>215</u> 1480	<u>185</u> 1270
		10-16 69-110	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1055</u> 7270	<u>910</u> 6270
9	<u>35</u> 241	<u>6-30</u> 138-234	<u>905</u> 6240	<u>1480</u> 10200	<u>480</u> 10200	<u>480</u> 10200	<u>340</u> 2340	<u>290</u> 2000
		<u>20-34"</u> 138-234	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1255</u> 8650
11	<u>35</u> 241	<u>14-23</u> 96-158	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1480</u> 10200	<u>1330</u> 9160

* These are 3-15 psig (21-103kPa) springs set to increase maximum pressure differential

Note: These shutoff ratings are the maximum permissible for the specified actuator and spring ranges.
Further limitations by the body pressure rating per ANSI B16.5 may occur. For ultra-low differentials, see pg 9

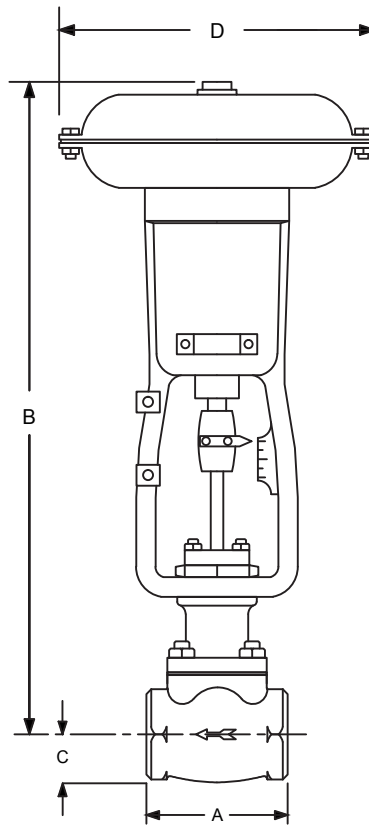
Ultra Low-Flow Trim flow coefficients are 0.025, 0.063, 0.16, 0.40 and 1.0 (0.022, 0.055, 0.14, 0.35, 0.9 Kv) with a 18 psi (125 kPa) and a spring range of 3-15 psi (20-100kPa). The maximum pressure differential is 1480 (10200kPa).

DIMENSIONS

Flanged Ends

Valve Size	Actuator Size	A			B				C		D
		Iron 125 Steel 150	Iron 250 Steel 300	Steel 600	Air-to-Close		Air-to-Open		Iron 125 Steel 300	Iron 250 Steel 300	Steel 600
					Plain Bonnet	All Other Bonnets	Plain Bonnet	All Other Bonnets			
<u>1"</u> 25mm	9	<u>7.25</u> 184	<u>7.75</u> 197	<u>8.25</u> 210	<u>25.13</u> 514	<u>26.13</u> 664	<u>21.75</u> 552	<u>277.7</u> 704	<u>2.13</u> 54	<u>2.43</u> 62	<u>10.56</u> 268
<u>1.5"</u> 40mm	9	<u>8.75</u> 222	<u>9.25</u> 235	-	<u>20.25</u> 514	<u>26.13</u> 664	<u>21.75</u> 552	<u>277.7</u> 704	<u>2.5</u> 64	<u>3.07</u> 78	<u>10.56</u> 268
<u>2"</u> 50mm	9	<u>10.0</u> 254	<u>10.5</u> 267	-	<u>20.25</u> 514	<u>26.13</u> 664	<u>21.75</u> 552	<u>277.7</u> 704	<u>3.0</u> 75	<u>3.25</u> 83	<u>10.56</u> 268
<u>1"</u> 25mm	11	<u>7.25</u> 184	<u>7.75</u> 197	<u>8.25</u> 210	<u>21.6</u> 549	<u>27.5</u> 698	<u>24.9</u> 610	<u>30.8</u> 782	<u>2.13</u> 54	<u>2.43</u> 62	<u>12.75</u> 324
<u>1.5"u</u> 40mm	11	<u>8.75</u> 222	<u>9.26</u> 235	-	<u>21.6</u> 549	<u>27.5</u> 698	<u>24.9</u> 610	<u>30.8</u> 782	<u>2.5</u> 64	<u>3.07</u> 78	<u>12.75</u> 324
<u>2"</u> 50mm	11	<u>10.0</u> 254	<u>10.5</u> 267	-	<u>21.6</u> 549	<u>27.5</u> 698	<u>24.9</u> 610	<u>30.8</u> 782	<u>3.0</u> 75	<u>3.25</u> 8.3	<u>12.75</u> 324

Inch/Millimeter



DIMENSIONS

Threaded Ends

Valve Size	Actuator Size	A	B				C	D
		<u>Iron</u> <u>125</u> Steel 150	Air-to-Close		Air-to-Open			Steel 600
			Plain Bonnet	All Other Bonnets	Plain Bonnet	All Other Bonnets		
<u>0.5"</u> <u>0.75"</u> 15mm 20mm <u>1"</u> 25mm	9	<u>4.5</u> 114	<u>20.25</u> 514	<u>26.13</u> 664	<u>21.75</u> 552	<u>277.7</u> 704	<u>1.25</u> 32	<u>10.56</u> 268
<u>1.5"</u> 400mm	9	<u>6.25</u> 159	<u>20.25</u> 514	<u>26.13</u> 664	<u>21.75</u> 552	<u>277.7</u> 704	<u>1.43</u> 36	<u>10.56</u> 268
<u>2"</u> 50mm	9	<u>7.0</u> 177	<u>20.25</u> 514	<u>26.13</u> 664	<u>21.75</u> 552	<u>277.7</u> 704	<u>1.7</u> 43	<u>10.56</u> 268
<u>0.5"</u> <u>0.75"</u> 15mm 20mm <u>1"</u> 25mm	11	<u>4.5</u> 114	<u>21.6</u> 549	<u>27.5</u> 698	<u>24.9</u> 610	<u>30.8</u> 782	<u>1.25</u> 32	<u>12.75</u> 324
<u>1.5"u</u> 40mm	11	<u>6.25</u> 159	<u>21.6</u> 549	<u>27.5</u> 698	<u>24.9</u> 610	<u>30.8</u> 782	<u>1.43</u> 36	<u>12.75</u> 324
<u>2"</u> 50mm	11	<u>7.0</u> 177	<u>21.6</u> 549	<u>27.5</u> 698	<u>24.9</u> 610	<u>30.8</u> 782	<u>1.7</u> 43	<u>12.75</u> 324

Inch
Millimeter

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Products, auxiliaries and parts thereof, of Allagash International Group, LLC, a manufacturer of Nor' East Controls, are guaranteed for a period of one year from the date of shipment against defective workmanship and material only, when properly installed, operated and serviced in accordance with Allagash International Group, LLC recommendations. Replacement for items of Allagash International Group, LLC manufacture will be made free of charge if proved to be defective within such time. No claim for special or consequential damages, transportation, or labor shall be allowed. Purchaser shall be solely responsible for determining suitability for use and in no event shall Allagash International Group, LLC be liable in this respect. Equipment or parts manufactured by others but furnished by Allagash International Group, LLC will be repaired or replaced, only to the extent provided in the original manufacturer's warranty to Allagash International Group, LLC. Allagash International Group, LLC does not guarantee resistance to corrosion, erosion, abrasion or other sources of failure, nor does Allagash International Group, LLC guarantee a minimum length of service. Failure of the purchaser to give prompt written notice of any alleged defect under this guarantee forthwith upon its discovery, or use and possession thereof after an attempt has been made and completed by someone other than Allagash International Group, LLC or an authorized representative to remedy defects therein, or failure to return products or parts for replacement as herein provided, of failure to install, operate, and maintain said products or parts according to instructions provided by Allagash International Group, LLC, of failure to pay the entire contract price when due, shall be a waiver of all rights under these representations.

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