

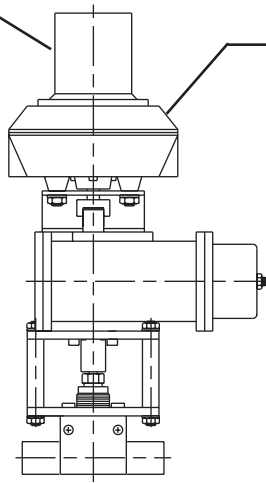
ACTUATORS

All BuTech ball valves can be fitted with pneumatic or electric actuators for remote control. The following pages show dimensional and technical data for our most popular actuators. Other models are available for unique applications. Please call our sales department for more information.

Available options for actuated valves include:

Visual Monitor

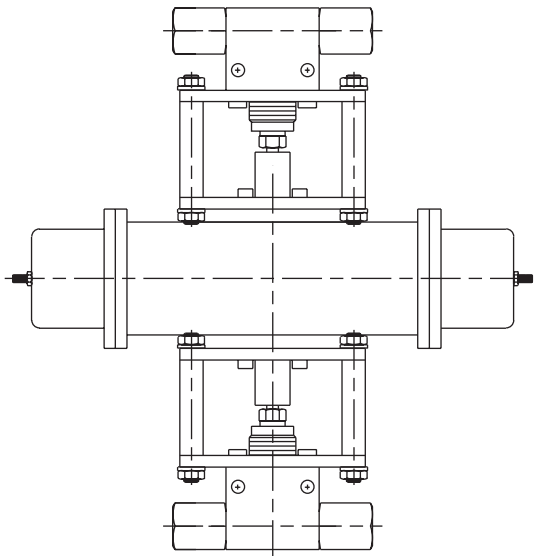
Valve position can be monitored from distances up to 150 ft (45 m)
Specify option **-LB**



Limit Switches or Solenoid Valves

Two limit switches or solenoid pilot valves can be used for signalling lights, motors, micro-processors or hydraulic valves

Specify option **-L** for limit switches
Specify option **-S** for solenoid valves



2 Valves / 1 Actuator

BuTech valves can be paired on a single actuator for simultaneous actuation. To order, determine catalog number for ordering a single valve, complete with connection numbers, options and actuator information (see page BV-2), then add the prefix "2"

Example

To specify two K104 valves with 1/4" FNPT connections mounted on a double-acting actuator, the catalog number would be **2K104-20-20-RC10DA**

DOUBLE-ACTING ALUMINUM HOUSING PNEUMATIC ACTUATORS

For valve models beginning **K** or **3DVK**

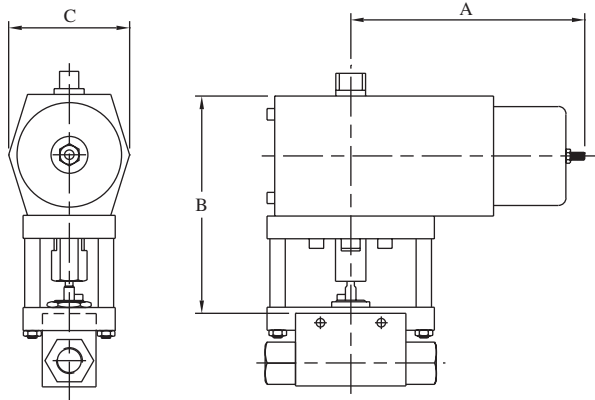


Figure 1

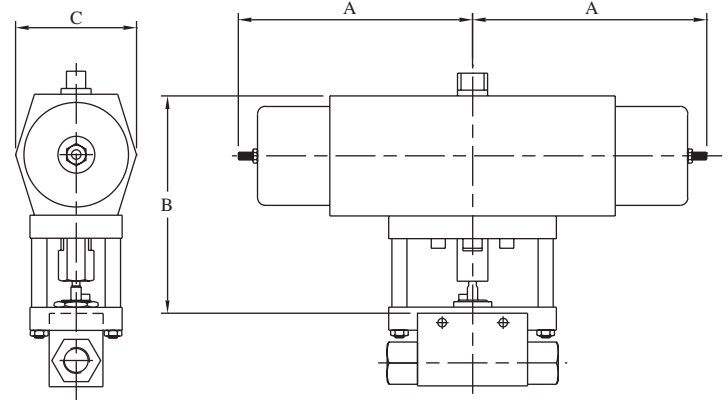


Figure 2

Maximum Air Pressure: 150 PSI (10 bar)

Operating Temperature Range: -20 to 175° F (-29 to 79° C)

Valve Model	Actuator Model	Dimensional Data			Fig.	Air Consumption per Stroke (Free Air)		Required Air Pressure	Opening/Closing Time
		A	B	C		Open	Close		
K34	RA05DA	2.20" (55.9)	5.53" (140.5)	2.60" (66.0)	1	51.0 cu in 836 cc	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K63	RA05DA	2.20" (55.9)	5.53" (140.5)	2.60" (66.0)	1	51.0 cu in 836 cc	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K103	RA05DA	2.20" (55.9)	5.53" (140.5)	2.60" (66.0)	1	51.0 cu in 836 cc	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K104	RA05DA	2.20" (55.9)	6.08" (154.4)	2.60" (66.0)	1	51.0 cu in 836 cc	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K106	RA05DA	2.20" (55.9)	6.08" (154.4)	2.60" (66.0)	1	51.0 cu in 836 cc	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K108	RC20DA	3.85" (97.8)	5.20" (132.1)	3.00" (76.2)	2	64.0 cu in 1049 cc	73.0 cu in 1196 cc	80 PSI 5.5 bar	1 sec
K204	RA05DA	2.20" (55.9)	6.08" (154.4)	2.60" (66.0)	1	51.0 cu in 836 cc	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K206	RA05DA	2.20" (55.9)	6.08" (154.4)	2.60" (66.0)	1	51.0 cu in 836 cc	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
3DVK34	RA05DA	2.20" (55.9)	5.60" (142.2)	2.60" (66.0)	1	51.0 cu in 836 cc	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
3DVK63	RA05DA	2.20" (55.9)	5.60" (142.2)	2.60" (66.0)	1	51.0 cu in 836 cc	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
3DVK93	RA05DA	2.20" (55.9)	5.60" (142.2)	2.60" (66.0)	1	51.0 cu in 836 cc	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
3DVK106	RC20DA	3.85" (97.8)	5.20" (132.1)	3.00" (76.2)	2	64.0 cu in 1049 cc	73.0 cu in 1196 cc	80 PSI 5.5 bar	1 sec
3DVK108	RC30DA	5.30" (134.6)	7.00" (177.8)	4.10" (104.1)	1	122.0 cu in 1999 cc	266.0 cu in 4359 cc	80 PSI 5.5 bar	1.5-2.0 sec
3DVK123	RA05DA	2.20" (55.9)	5.78" (146.8)	2.60" (66.0)	1	51.0 cu in 836 cc	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
3DVK203	RC10DA	3.85" (97.8)	5.51" (140.0)	2.87" (72.9)	1	32.0 cu in 524 cc	61.0 cu in 1000 cc	80 PSI 5.5 bar	1 sec
3DVK206	RC30DA	5.30" (134.6)	6.82" (173.2)	4.10" (104.1)	1	122.0 cu in 1999 cc	226.0 cu in 3703 cc	80 PSI 5.5 bar	1.5-2.0 sec

All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm).

SPRING-RETURN ALUMINUM HOUSING PNEUMATIC ACTUATORS

For valve models beginning **K** or **3DVK**

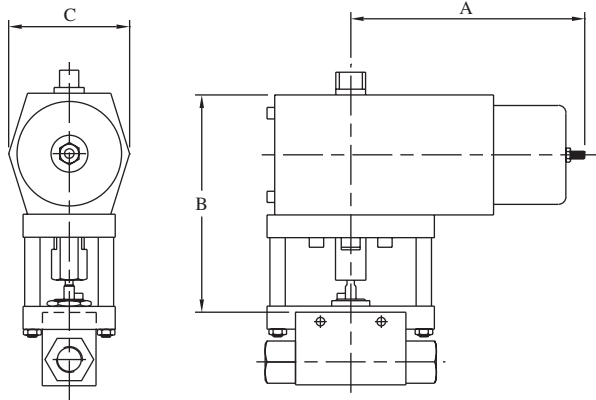


Figure 1

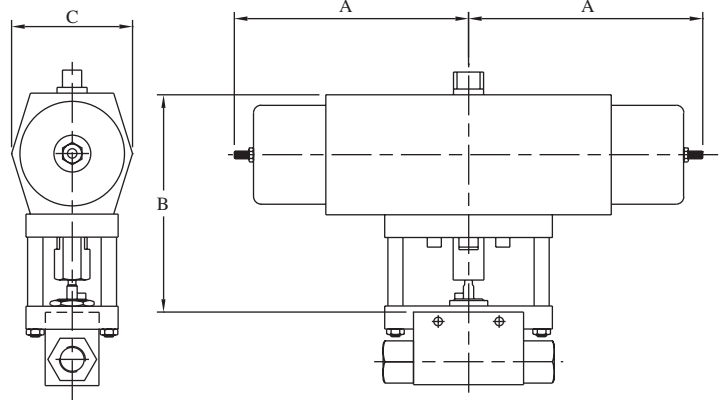


Figure 2

Maximum Air Pressure: 150 PSI (10 bar)

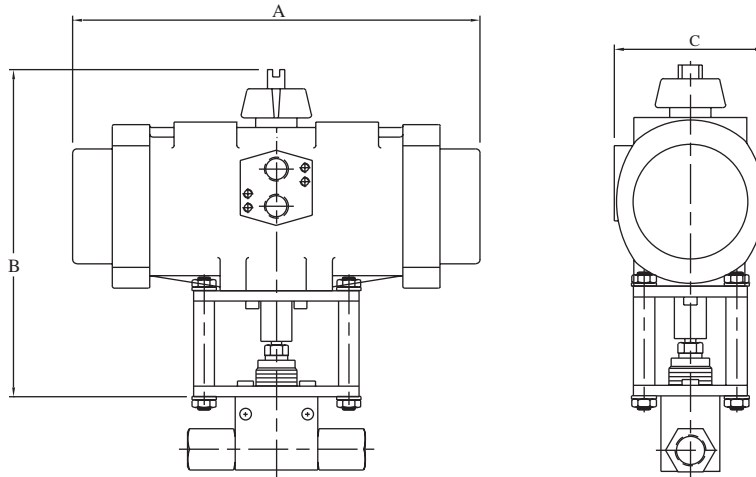
Operating Temperature Range: -20 to 175° F (-29 to 79° C)

Valve Model	Actuator Model	Dimensional Data				Air Consumption per Stroke (Free Air)	Required Air Pressure	Opening/Closing Time
		A	B	C	Fig.			
K34	RA05SR	4.65" (118.1)	5.53" (140.5)	2.60" (66.0)	1	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K63	RA05SR	4.65" (118.1)	5.53" (140.5)	2.60" (66.0)	1	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K103	RA05SR	4.65" (118.1)	5.53" (140.5)	2.60" (66.0)	1	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K104	RC10SR	5.70" (144.8)	6.08" (154.4)	2.60" (66.0)	1	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K106	RC10SR	5.70" (144.8)	6.08" (154.4)	2.60" (66.0)	1	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K108	RC30SR	7.70" (195.6)	7.00" (177.8)	4.10" (104.1)	2	122.0 cu in 1999 cc	80 PSI 5.5 bar	1.5-2.0 sec
K204	RC10SR	5.70" (144.8)	7.00" (177.8)	4.10" (104.1)	1	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
K206	RC10SR	5.70" (144.8)	6.08" (154.4)	2.60" (66.0)	1	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
3DVK34	RA05SR	4.65" (118.1)	5.60" (142.2)	2.60" (66.0)	1	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
3DVK63	RA05SR	4.65" (118.1)	5.60" (142.2)	2.60" (66.0)	1	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
3DVK93	RC10SR	4.65" (118.1)	5.60" (142.2)	2.60" (66.0)	1	51.0 cu in 836 cc	80 PSI 5.5 bar	1 sec
3DVK106	RC30SR	7.70" (195.6)	7.07" (179.6)	4.10" (104.1)	1	122.0 cu in 1999 cc	80 PSI 5.5 bar	1.5-2.0 sec
3DVK108	RC40SR	7.70" (195.6)	6.47" (164.3)	4.10" (104.1)	2	244.0 cu in 3998 cc	80 PSI 5.5 bar	1.5-2.0 sec
3DVK123	RC10SR	5.70" (144.8)	5.78" (146.8)	2.60" (66.0)	1	32.0 cu in 524 cc	80 PSI 5.5 bar	1 sec
3DVK203	RC20SR	5.70" (144.8)	5.51" (140.0)	2.87" (72.9)	2	64.0 cu in 1049 cc	80 PSI 5.5 bar	1 sec
3DVK206	RC30SR	7.70" (195.6)	7.00" (177.8)	4.10" (104.1)	1	122.0 cu in 1999 cc	80 PSI 5.5 bar	1.5-2.0 sec

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DOUBLE-ACTING STAINLESS STEEL HOUSING PNEUMATIC ACTUATORS

For valve models beginning **K** or **3DVK**



Operating Temperature Range: -20 to 175° F (-29 to 79° C)

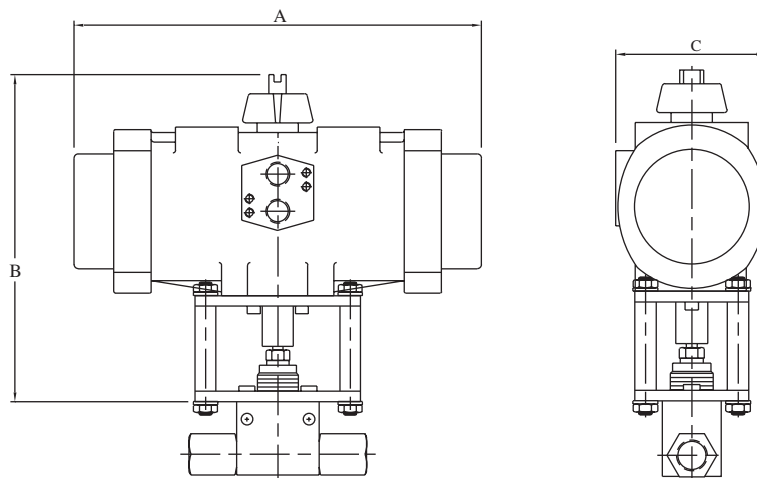
Valve Model	Actuator Model	Dimensional Data			Air Consumption per Stroke (Free Air)		Required Air Pressure	Opening/Closing Time
		A	B	C	Open	Close		
K34	RA10DASS	4.19" (106.4)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	15 PSI 1.0 bar	0.15 sec
K63	RA10DASS	4.19" (106.4)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	15 PSI 1.0 bar	0.15 sec
K103	RA10DASS	4.19" (106.4)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	20 PSI 1.4 bar	0.15 sec
K104	RA10DASS	4.19" (106.4)	6.98" (177.3)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	20 PSI 1.4 bar	0.15 sec
K106	RA10DASS	4.19" (106.4)	6.98" (177.3)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	30 PSI 2.1 bar	0.15 sec
K108	RA20DASS	7.00" (177.8)	7.23" (183.6)	3.82" (97.0)	19.5 cu in 320 cc	17.0 cu in 279 cc	50 PSI 3.4 bar	0.35 sec
K204	RA10DASS	4.19" (106.4)	6.98" (177.3)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	30 PSI 2.1 bar	0.15 sec
K206	RA10DASS	4.19" (106.4)	6.98" (177.3)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	40 PSI 2.8 bar	0.15 sec
3DVK34	RA10DASS	4.19" (106.4)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	20 PSI 1.4 bar	0.15 sec
3DVK63	RA10DASS	4.19" (106.4)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	20 PSI 1.4 bar	0.15 sec
3DVK93	RA10DASS	4.19" (106.4)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	20 PSI 1.4 bar	0.15 sec
3DVK106	RA20DASS	7.00" (177.8)	7.58" (192.5)	3.82" (97.0)	19.5 cu in 320 cc	17.0 cu in 279 cc	40 PSI 2.8 bar	0.35 sec
3DVK108	RA20DASS	7.00" (177.8)	7.75" (196.9)	3.82" (97.0)	19.5 cu in 320 cc	17.0 cu in 279 cc	60 PSI 4.1 bar	0.35 sec
3DVK123	RA10DASS	4.19" (106.4)	6.98" (177.3)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	30 PSI 2.1 bar	0.15 sec
3DVK203	RA10DASS	4.19" (106.4)	6.98" (177.3)	3.15" (80.0)	9.0 cu in 147 cc	7.5 cu in 123 cc	50 PSI 3.4 bar	0.15 sec
3DVK206	RA20DASS	7.00" (177.8)	7.58" (192.5)	3.82" (97.0)	19.5 cu in 320 cc	17.0 cu in 279 cc	50 PSI 3.4 bar	0.35 sec

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SPRING-RETURN STAINLESS STEEL HOUSING PNEUMATIC ACTUATORS

For valve models beginning **K** or **3DVK**



Operating Temperature Range: -20 to 175° F (-29 to 79° C)

Valve Model	Actuator Model	Dimensional Data			Air Consumption per Stroke (Free Air)	Required Air Pressure	Opening/ Closing Time
		A	B	C			
K34	RA10SRSS	5.87" (149.1)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	70 PSI 4.8 bar	0.25 sec 0.40 sec
K63	RA10SRSS	5.87" (149.1)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	70 PSI 4.8 bar	0.25 sec 0.40 sec
K103	RA10SRSS	5.87" (149.1)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	75 PSI 5.2 bar	0.25 sec 0.40 sec
K104	RA10SRSS	5.87" (149.1)	6.98" (177.3)	3.15" (80.0)	9.0 cu in 147 cc	75 PSI 5.2 bar	0.25 sec 0.40 sec
K106	RA10SRSS	5.87" (149.1)	6.98" (177.3)	3.15" (80.0)	9.0 cu in 147 cc	80 PSI 5.5 bar	0.25 sec 0.40 sec
K108	RA30SRSS	11.50" (292.1)	8.73" (221.7)	4.92" (125.0)	52.0 cu in 852 cc	80 PSI 5.5 bar	1.50 sec 2.00 sec
K204	RA10SRSS	5.87" (149.1)	6.98" (177.3)	3.15" (80.0)	9.0 cu in 147 cc	85 PSI 5.9 bar	0.25 sec 0.40 sec
K206	RA10SRSS	5.87" (149.1)	6.98" (177.3)	3.15" (80.0)	9.0 cu in 147 cc	90 PSI 6.2 bar	0.25 sec 0.40 sec
3DVK34	RA10SRSS	5.87" (149.1)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	70 PSI 4.8 bar	0.25 sec 0.40 sec
3DVK63	RA10SRSS	5.87" (149.1)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	70 PSI 4.8 bar	0.25 sec 0.40 sec
3DVK93	RA10SRSS	5.87" (149.1)	6.85" (174.0)	3.15" (80.0)	9.0 cu in 147 cc	75 PSI 5.2 bar	0.25 sec 0.40 sec
3DVK106	RA30SRSS	11.50" (292.1)	9.18" (233.2)	4.92" (125.0)	52.0 cu in 852 cc	75 PSI 5.2 bar	1.50 sec 2.00 sec
3DVK108	RA30SRSS	11.50" (292.1)	9.25" (235.0)	4.92" (125.0)	52.0 cu in 852 cc	80 PSI 5.5 bar	1.50 sec 2.00 sec
3DVK123	RA10SRSS	5.87" (149.1)	6.98" (177.3)	3.15" (80.0)	9.0 cu in 147 cc	80 PSI 5.5 bar	0.25 sec 0.40 sec
3DVK203	RA20SRSS	8.74" (222.0)	7.57" (192.3)	3.82" (97.0)	19.5 cu in 320 cc	75 PSI 5.2 bar	0.50 sec 1.00 sec
3DVK206	RA30SRSS	11.50" (292.1)	9.08" (230.6)	4.92" (125.0)	52.0 cu in 852 cc	80 PSI 5.5 bar	1.50 sec 2.00 sec

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DOUBLE-ACTING ALUMINUM HOUSING PNEUMATIC ACTUATORS

For valve models beginning 3K

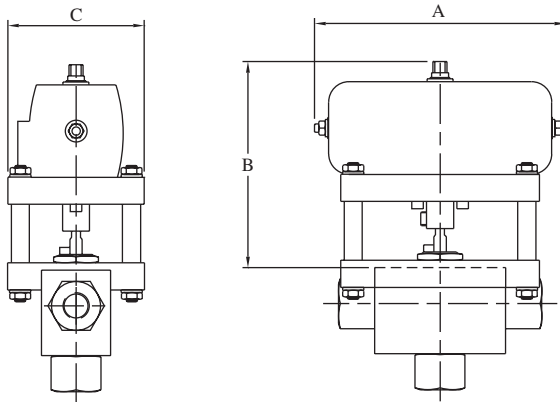


Figure 1

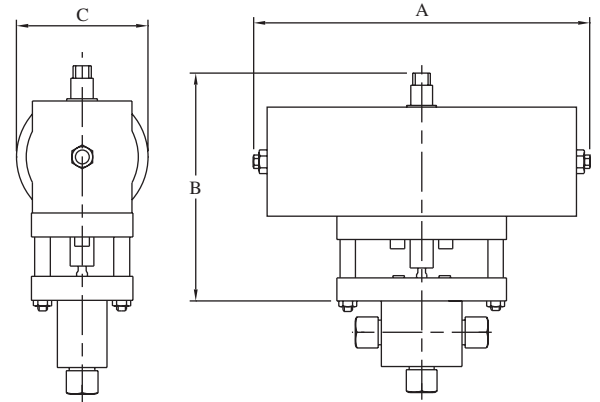


Figure 2

Operating Temperature Range: -20 to 175° F (-29 to 79° C)

Valve Model	Actuator Model	Dimensional Data			Fig.	Air Consumption per Stroke (Free Air)		Required Air Pressure	Opening/ Closing Time
		A	B	C		Open	Close		
3K34	ADA180	6.69" (169.9)	4.87" (123.7)	2.69" (68.3)	1	34.8 cu in 570 cc	52.8 cu in 865 cc	80 PSI 5.5 bar	< 1 sec
3K63	ADA180	6.69" (169.9)	4.87" (123.7)	2.69" (68.3)	1	34.8 cu in 570 cc	52.8 cu in 865 cc	80 PSI 5.5 bar	< 1 sec
3K93	ADA180	6.69" (169.9)	4.87" (123.7)	2.69" (68.3)	1	34.8 cu in 570 cc	52.8 cu in 865 cc	80 PSI 5.5 bar	< 1 sec
3K123	ADA180	6.69" (169.9)	4.93" (125.2)	2.69" (68.3)	1	34.8 cu in 570 cc	52.8 cu in 865 cc	80 PSI 5.5 bar	< 1 sec
3K106	ADA180	6.69" (169.9)	5.70" (144.8)	2.69" (68.3)	1	34.8 cu in 570 cc	52.8 cu in 865 cc	80 PSI 5.5 bar	< 1 sec
3K108	AHDA180	10.92" (277.4)	6.87" (174.5)	3.25" (82.6)	2	128.8 cu in 2111 cc	128.8 cu in 2111 cc	80 PSI 5.5 bar	< 1 sec
3K206	ADA180	6.69" (169.9)	5.70" (144.8)	2.69" (68.3)	1	34.8 cu in 570 cc	52.8 cu in 865 cc	80 PSI 5.5 bar	< 1 sec
3K203	ADA180	6.69" (169.9)	4.93" (125.2)	2.69" (68.3)	1	34.8 cu in 570 cc	52.8 cu in 865 cc	80 PSI 5.5 bar	< 1 sec

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