

# Valve Actuators



MAXIMATOR air operated valve actuators are piston type design, and are mounted on a manual valve to provide remote control capability. There are two air to open actuators and two air to close actuators available, and selection is based on the valve size, system pressure, and air pressure available.

#### Valves Actuator features:

- All valve actuators are ATEX (CE Ex II 2D/2G IIC c TX) approved
- Piston style valve actuator design offers dependable operation and longer actuator cycle life.
- Two different size actuators are available to cover varying plant air supplies.
- Actuators are made of anodized aluminum, which provides good corrosion resistance.
- Actuators are available in normally open or normally closed configuration.
- Actuators are available in double acting configuration.

MAXIMATOR offers a complete line of high pressure valves, fittings and tubing to compliment the valve actuator line.

**Note: When selecting multiple items, the pressure rating would be that of the lowest rated component.**

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# Valve Actuators

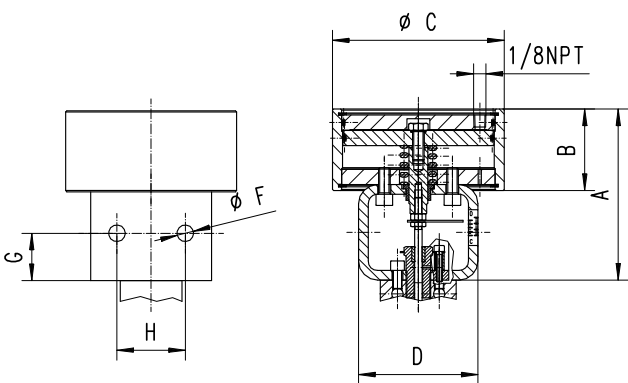
## » Air to Close, Normally Open

### Order Information

Select the basic manual valve from the appropriate pressure section, then add the actuator suffix number to the end of the manual Valve catalog number.

**Example:** 21V4M071-YMNO, medium duty actuator, normally open. This valve can be operated at 22,500 psi with an air supply of 100 psi to the valve actuator.

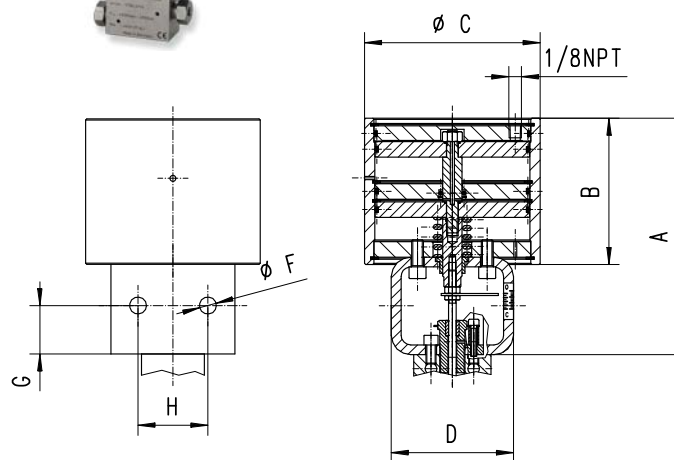
### Medium Duty Valve Actuator



### Technical Information

- **Maximum allowable working pressure for actuator:**  
See table below for specific valve type
- **Maximum operation temperature range for actuator:**  
-20°F to +200°F (-30°C to + 95°C)
- **Actuator material:** Anodized Aluminum
- **Air connection size:** 1/8NPT

### Heavy Duty Valve Actuator



Actuator type	Ordering Suffix	Piston area in. <sup>2</sup> (mm <sup>2</sup> )	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	F in. (mm)	G in. (mm)	H in. (mm)
Medium duty	4;6;9-YMNO	19.6 (12.645)	5.79 (147.3)	2.69 (68.3)	5.67 (144)	4.09 (104)	0.28 (7)	1.65 (42)	1.13 (28.8)
Heavy duty	4;6;9-YHNO	39.2 (25.290)	7.78 (197.8)	4.72 (119.9)	5.67 (144)	4.09 (104)	0.28 (7)	1.65 (42)	1.13 (28.8)
Medium duty	5-YMNO	19.6 (12.645)	5.79 (147.3)	2.69 (68.3)	5.67 (144)	4.09 (104)	0.28 (7)	1.65 (42)	1.13 (28.8)
Heavy duty	5-YHNO	39.2 (25.290)	7.78 (197.8)	4.72 (119.9)	5.67 (144)	4.09 (104)	0.28 (7)	1.65 (42)	1.13 (28.8)
Medium duty	12-YMNO	19.6 (12.645)	6.58 (167.3)	2.69 (68.3)	5.67 (144)	4.09 (104)	0.28 (7)	2.55 (64.7)	1.13 (28.8)
Heavy duty	12;16-YHNO	39.2 (25.290)	8.58 (217.9)	4.72 (119.9)	5.67 (144)	4.09 (104)	0.28 (7)	2.55 (64.7)	1.13 (28.8)

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to 22,500 psi (1,550 bar)

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High Pressure  
to 65,000 psi (4,500 bar)

Tools  
Ultra High Pressure  
to 152,000 psi (10,500 bar)

Technical Information  
Valve Actuators

Customized Solutions  
Ball Valves  
to 21,000 psi (1,500 bar)

Valve Series	Air Actuator		Air pressure required to close Valve at: System Pressure ksi (bar)											Max. Pressure psi (bar)	Stem Travel in. (mm)	Flow Value Cv*
	Type	Ordering Suffix	1-3 (68-200)	4 (275)	6 (400)	8 (550)	10 (700)	12 (830)	14 (970)	16 (1,100)	18 (1,250)	20 (1,400)	21 (1,500)			
21V4	Medium Duty	-YMNO	40 (2.8)	40 (2.8)	40 (2.8)	40 (2.8)	50 (3.5)	60 (4.2)	70 (4.9)	80 (5.6)	85 (5.9)	95 (6.6)	100 (6.9)	21,000 (1,500)	0.25 (6.4)	0.31
	Heavy Duty	-YHNO	20 (1.4)	20 (1.4)	20 (1.4)	20 (1.4)	25 (1.7)	30 (2.1)	35 (2.4)	40 (2.8)	45 (3.1)	50 (3.5)	55 (3.8)			
21V6	Medium Duty	-YMNO	45 (3.1)	45 (3.1)	45 (3.1)	45 (3.1)	55 (3.8)	65 (4.5)	75 (5.2)	85 (5.9)	95 (6.6)	100 (6.9)	20,000 (1,400)	0.25 (6.4)	0.75	
	Heavy Duty	-YHNO	25 (1.7)	25 (1.7)	25 (1.7)	25 (1.7)	30 (2.1)	35 (2.4)	40 (2.8)	45 (3.1)	50 (3.5)	55 (3.8)	60 (4.2)			
21V9	Medium Duty	-YMNO	60 (4.2)	60 (4.2)	65 (4.5)	80 (5.6)	100 (6.9)						10,700 (700)	0.38 (9.7)	1.30	
	Heavy Duty	-YHNO	30 (2.1)	30 (2.1)	30 (2.1)	40 (2.8)	50 (3.5)	55 (3.8)	60 (4.2)	70 (4.9)	80 (5.6)	85 (5.9)	90 (6.2)			
21V12	Medium Duty	-YMNO	80 (5.6)	80 (5.6)	100 (6.9)								6,100 (400)	0.44 (11.2)	2.50	
	Heavy Duty	-YHNO	40 (2.8)	40 (2.8)	50 (3.5)	60 (4.2)	75 (5.2)	90 (6.2)	100 (6.9)				13,600 (970)			
21V16	Heavy Duty	-YHNO	50 (3.5)	50 (3.5)	70 (4.9)	100 (6.9)							8,800 (550)	0.56 (14.2)	3.40	
			1-12 (68-830)	14 (970)	16 (1,100)	18 (1,250)	20 (1,400)	22 (1,500)	24 (1,650)	26 (1,800)	28 (1,900)	30 (2,000)	36 (2,500)			
36V4	Medium Duty	-YMNO	25 (1.7)	25 (1.7)	30 (2.1)	35 (2.4)	35 (2.4)	40 (2.8)	45 (3.1)	50 (3.5)	50 (3.5)	55 (3.8)	65 (4.5)	36,000 (2,500)	0.19 (4.8)	0.12
	Heavy Duty	-YHNO	15 (1)	15 (1)	15 (1)	20 (1.4)	20 (1.4)	20 (1.4)	25 (1.7)	25 (1.7)	25 (1.7)	30 (2.1)	35 (2.4)			
36V6 & 36V9	Medium Duty	-YMNO	30 (2.1)	35 (2.4)	40 (2.8)	45 (3.1)	50 (3.5)	55 (3.8)	60 (4.2)	65 (4.9)	70 (4.9)	72 (5)	85 (5.9)	36,000 (2,500)	0.19 (4.8)	0.23
	Heavy Duty	-YHNO	15 (1)	20 (1.4)	20 (1.4)	25 (1.7)	25 (1.7)	30 (2.1)	30 (2.1)	35 (2.4)	35 (2.4)	40 (2.8)	50 (3.5)			0.33
			1-15 (68-1,050)	20 (1,400)	25 (1,800)	30 (2,000)	35 (2,400)	40 (2,800)	45 (3,100)	50 (3,500)	55 (3,800)	60 (4,100)	65 (4,500)			
65V4 & 65V6	Medium Duty	-YMNO	30 (2.1)	30 (2.1)	30 (2.1)	35 (2.4)	45 (3.1)	50 (3.5)	55 (3.8)	60 (4.2)	70 (4.9)	75 (5.2)	80 (5.6)	65,000 (4,500)	0.25 (6.4)	0.08
	Heavy Duty	-YHNO	15 (1)	15 (1)	15 (1)	20 (1.4)	25 (1.7)	25 (1.7)	30 (2.1)	30 (2.1)	35 (2.4)	40 (2.8)	45 (3.1)			0.09
65V9	Medium Duty	-YMNO	35 (2.4)	35 (2.4)	40 (2.8)	50 (3.5)	55 (3.8)	65 (4.5)	70 (5.2)	75 (5.2)	85 (5.9)	90 (6.2)	95 (6.6)	65,000 (4,500)	0.25 (6.4)	0.14
	Heavy Duty	-YHNO	20 (1.4)	20 (1.4)	20 (1.4)	25 (1.7)	30 (2.1)	35 (2.4)	35 (2.4)	40 (2.8)	45 (3.1)	45 (3.1)	50 (3.5)			
			1-10 (68-680)	20 (1,400)	30 (2,000)	40 (2,800)	50 (3,500)	60 (4,100)	70 (4,800)	80 (5,500)	90 (6,200)	101 (7,000)				
101V4	Medium Duty	-YMNO	50 (3.5)	50 (3.5)	50 (3.5)	50 (3.5)	55 (3.8)	65 (4.5)	75 (5.2)	85 (5.9)	95 (6.6)	100 (6.9)	101,000 (7,000)	0.12 (3)	0.09	
101V5																
101V6	Heavy Duty	-YHNO	30 (2.1)	30 (2.1)	30 (2.1)	30 (2.1)	30 (2.1)	35 (2.4)	40 (2.8)	40 (2.8)	45 (3.1)	50 (3.5)				
101V9																

\* Cv values are for straight pattern valves, increase this value by 50% for angle pattern valves.

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# Valve Actuators

## » Air to Open, Normally Closed

### Order Information

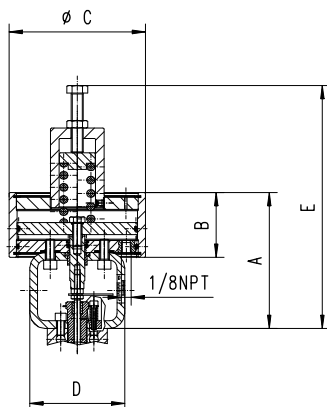
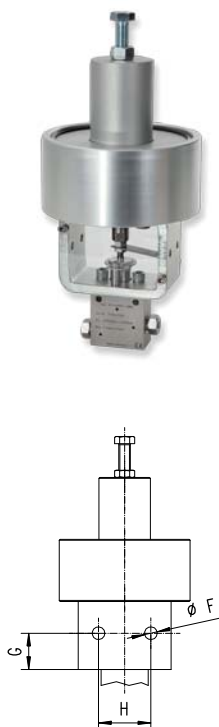
Select the basic manual valve from the appropriate pressure section, then add the actuator suffix number to the end of the manual Valve catalog number.

**Example:** 21V4M071-YMNC, medium duty actuator, normally closed. This valve can be operated at 22,500 psi with an air supply of 100 psi to the valve actuator.

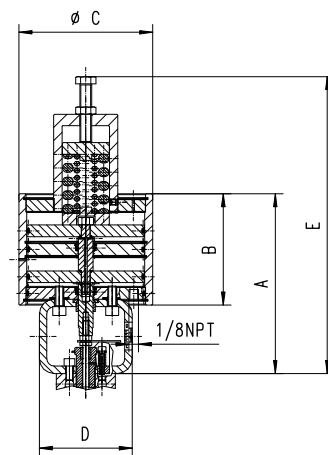
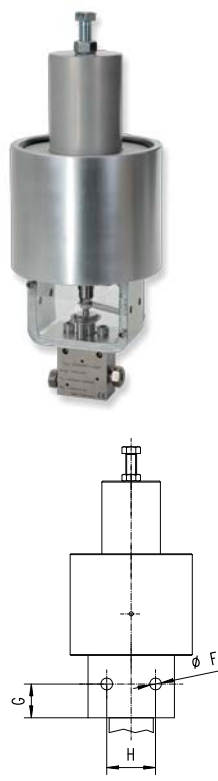
### Technical Information

- **Maximum allowable working pressure for actuator:**  
See table below for specific valve type
- **Maximum operation temperature range for actuator:**  
-20°F to +200°F (-30°C to + 95°C)
- **Actuator material:** Anodized Aluminum
- **Air connection size:** 1/8NPT

### Medium Duty Valve Actuator



### Heavy Duty Valve Actuator



Actuator type	Ordering Suffix	Piston area in. <sup>2</sup> (mm <sup>2</sup> )	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E* in. (mm)	F in. (mm)	G in. (mm)	H in. (mm)
Medium duty	4;6;9-YMNC	19.6 (12.645)	5.79 (147.3)	2.69 (68.3)	5.67 (144)	4.09 (104)	10.09 (256.3)	0.28 (7)	1.65 (42)	1.13 (28.8)
Heavy duty	4;6;9-YHNC	39.2 (25.290)	7.78 (197.8)	4.72 (119.9)	5.67 (144)	4.09 (104)	12.59 (320)	0.28 (7)	1.65 (42)	1.13 (28.8)
Medium duty	5-YMNC	19.6 (12.645)	5.79 (147.3)	2.69 (68.3)	5.67 (144)	4.09 (104)	10.09 (256.3)	0.28 (7)	1.65 (42)	1.13 (28.8)
Heavy duty	5-YHNC	39.2 (25.290)	7.78 (197.8)	4.72 (119.9)	5.67 (144)	4.09 (104)	12.59 (320)	0.28 (7)	1.65 (42)	1.13 (28.8)
Heavy duty	12;16-YHNC	39.2 (25.290)	8.58 (217.9)	4.72 (119.9)	5.67 (144)	4.09 (104)	13.27 (337.8)	0.28 (7)	2.55 (64.7)	1.13 (28.8)

\*E dimension is an approximation only.

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Ultra High Pressure  
to 152,000 psi (10,500 bar)

Technical Information  
Valve Actuators

Customized Solutions  
Ball Valves  
to 21,000 psi (1,500 bar)

Valve Series	Type	Air Actuator		Air pressure required to open Valve at: System Pressure ksi (bar)									Max. Pressure psi (bar)	Flow Value Cv*	
		Ordering Suffix	Data	6 (400)	8 (550)	10 (700)	12 (830)	14 (970)	16 (1,100)	18 (1,250)	20 (1,400)	21 (1,500)			
21V4	Medium Duty	-YMNC	Air Pressure psi (bar)	65 (4.5)	65 (4.5)	75 (5.2)	85 (5.9)	95 (6.6)	95 (6.6)	95 (6.6)	95 (6.6)	100 (6.9)	21,000 (1,500)	0.31 - 0.22	
			Spring Pre-compression in. (mm)	0.19 (4.8)	0.19 (4.8)	0.25 (6.4)	0.31 (7.9)	0.38 (9.7)	0.44 (11.2)	0.5 (12.7)	0.56 (14.2)	0.59 (15)			
			Stem Travel in. (mm)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.19 (4.8)	0.12 (3)	0.06 (1.5)	0.03 (0.8)			
	Heavy Duty	-YHNC	Air Pressure psi (bar)	35 (2.4)	35 (2.4)	40 (2.8)	45 (3.1)	50 (3.5)	50 (3.5)	50 (3.5)	50 (3.5)	55 (3.8)			21,000 (1,500)
			Spring Pre-compression in. (mm)	0.19 (4.8)	0.19 (4.8)	0.25 (6.4)	0.31 (7.9)	0.38 (9.7)	0.44 (11.2)	0.5 (12.7)	0.56 (14.2)	0.59 (15)			
			Stem Travel in. (mm)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.19 (4.8)	0.12 (3)	0.06 (1.5)	0.03 (0.8)			
21V6	Medium Duty	-YMNC	Air Pressure psi (bar)	65 (4.5)	75 (5.2)	85 (5.9)	95 (6.6)	95 (6.6)	95 (6.6)	95 (6.6)			18,250 (1,250)	0.75 - 0.57	
			Spring Pre-compression in. (mm)	0.19 (4.8)	0.25 (6.4)	0.31 (7.9)	0.38 (9.7)	0.44 (11.2)	0.5 (12.7)	0.56 (14.2)					
			Stem Travel in. (mm)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.19 (4.8)	0.12 (3)	0.06 (1.5)					
	Heavy Duty	-YHNC	Air Pressure psi (bar)	35 (2.4)	40 (2.8)	45 (3.1)	50 (3.5)	50 (3.5)	50 (3.5)	50 (3.5)			18,250 (1,250)		
			Spring Pre-compression in. (mm)	0.19 (4.8)	0.25 (6.4)	0.31 (7.9)	0.38 (9.7)	0.44 (11.2)	0.5 (12.7)	0.56 (14.2)					
			Stem Travel in. (mm)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.19 (4.8)	0.12 (3)	0.06 (1.5)					
21V9	Medium Duty	-YMNC	Air Pressure psi (bar)	90 (6.2)	95 (6.6)	95 (6.6)							9,800 (675)	1.29 - 0.53	
			Spring Pre-compression in. (mm)	0.34 (8.6)	0.47 (11.9)	0.56 (14.2)									
			Stem Travel in. (mm)	0.25 (6.4)	0.15 (3.8)	0.06 (1.5)									
	Heavy Duty	-YHNC	Air Pressure psi (bar)	55 (3.8)	65 (4.5)	70 (4.9)	75 (5.2)	75 (5.2)	75 (5.2)				15,700 (1,080)		
			Spring Pre-compression in. (mm)	0.22 (5.6)	0.28 (7.1)	0.34 (8.6)	0.44 (11.2)	0.5 (12.7)	0.56 (14.2)						
			Stem Travel in. (mm)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.19 (4.8)	0.12 (3)	0.06 (1.5)						
21V12	Heavy Duty	-YHNC	Air Pressure psi (bar)	75 (5.2)	75 (5.2)								9,200 (630)	0.80 - 0.78	
			Spring Pre-compression in. (mm)	0.38 (9.7)	0.56 (14.2)										
			Stem Travel in. (mm)	0.25 (6.4)	0.06 (1.5)										
21V16	Heavy Duty	-YHNC	Air Pressure psi (bar)	75 (5.2)									6,100 (420)	2.73 - 0.15	
			Spring Pre-compression in. (mm)	0.56 (14.2)											
			Stem Travel in. (mm)	0.06 (1.5)											

\* Cv values are for straight pattern valves, increase this value by 50% for angle pattern valves.  
Cv values vary due to compression of actuator spring, and are adjusted based on system pressure.  
Values shown are for maximum to minimum stem travel position.

# Valve Actuators

## » Air to Open, Normally Closed

Valve Series	Type	Air Actuator		Air pressure required to open Valve at: System Pressure ksi (bar)												Max. Pressure psi (bar)	Flow Value Cv*	
		Ordering Suffix	Data	1-12 (68-830)	14 (970)	16 (1,100)	18 (1,250)	20 (1,400)	22 (1,500)	24 (1,650)	26 (1,800)	28 (1,900)	30 (2,000)	36 (2,500)				
36V4	Medium Duty	-YMNC	Air Pressure psi ( <b>bar</b> )	45 (3.1)	55 (3.8)	55 (3.8)	55 (3.8)	55 (3.8)	65 (4.5)	65 (4.5)	65 (4.5)	65 (4.5)	75 (5.2)	85 (5.9)	36,000 (2,500)	0.12		
			Spring Pre-compression in. ( <b>mm</b> )	0.12 (3)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.31 (7.9)	0.37 (9.4)				
			Stem Travel in. ( <b>mm</b> )	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)				
	Heavy Duty	-YHNC	Air Pressure psi ( <b>bar</b> )	25 (1.7)	30 (2.1)	30 (2.1)	30 (2.1)	30 (2.1)	35 (2.4)	35 (2.4)	35 (2.4)	35 (2.4)	40 (2.8)	45 (3.1)			36,000 (2,500)	0.12
			Spring Pre-compression in. ( <b>mm</b> )	0.12 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.31 (7.9)	0.37 (9.4)				
			Stem Travel in. ( <b>mm</b> )	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)				
36V6 & 36V9	Medium Duty	-YMNC	Air Pressure psi ( <b>bar</b> )	55 (3.8)	55 (3.8)	65 (4.5)	65 (4.5)	75 (5.2)	75 (5.2)	75 (5.2)	85 (5.9)	85 (5.9)	95 (6.6)	100 (6.9)	36,000 (2,500)	0.12		
			Spring Pre-compression in. ( <b>mm</b> )	0.19 (4.8)	0.19 (4.8)	0.25 (6.4)	0.25 (6.4)	0.31 (7.9)	0.31 (7.9)	0.31 (7.9)	0.38 (9.7)	0.38 (9.7)	0.44 (11.2)	0.5 (12.7)				
			Stem Travel in. ( <b>mm</b> )	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)				
	Heavy Duty	-YHNC	Air Pressure psi ( <b>bar</b> )	30 (2.1)	30 (2.1)	35 (2.4)	35 (2.4)	40 (2.8)	40 (2.8)	45 (3.1)	45 (3.1)	45 (3.1)	50 (3.5)	55 (3.8)			36,000 (2,500)	0.33
			Spring Pre-compression in. ( <b>mm</b> )	0.19 (4.8)	0.19 (4.8)	0.25 (6.4)	0.25 (6.4)	0.31 (7.9)	0.31 (7.9)	0.31 (7.9)	0.38 (9.7)	0.38 (9.7)	0.44 (11.2)	0.5 (12.7)				
			Stem Travel in. ( <b>mm</b> )	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)				

\* Cv values are for straight pattern valves, increase this value by 50% for angle pattern valves.  
 Cv values vary due to compression of actuator spring, and are adjusted based on system pressure.  
 Values shown are for maximum to minimum stem travel position.

Products for Sour Gas Applications  
 Pipe Valves & Fittings  
 to 15,200 psi (1,050 bar)

Adapters and Couplings  
 Medium Pressure  
 to 22,500 psi (1,550 bar)

Accessories  
 High Pressure  
 to 65,000 psi (4,500 bar)

Tools  
 Ultra High Pressure  
 to 152,000 psi (10,500 bar)

Technical Information  
 Valve Actuators

Customized Solutions  
 Ball Valves  
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Valve Series	Type	Air Actuator Ordering Suffix	Air Actuator Data	Air pressure required to open Valve at: System Pressure ksi (bar)											Max. Pressure psi (bar)	Flow Value Cv*
				1-15 (68-1,050)	20 (1,400)	25 (1,800)	30 (2,000)	35 (2,400)	40 (2,800)	45 (3,100)	50 (3,500)	55 (3,800)	60 (4,100)	60 (4,500)		
65V4 & 65V6	Medium Duty	-YMNC	Air Pressure psi (bar)	55 (3.8)	65 (4.5)	65 (4.5)	65 (4.5)	75 (5.2)	75 (5.2)	85 (5.9)	85 (5.9)	85 (5.9)	95 (6.6)	100 (6.9)	65,000 (4,500)	0.08
			Spring Pre-compression in. (mm)	0.12 (3)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.25 (6.4)	0.25 (6.4)	0.31 (7.9)	0.31 (7.9)	0.31 (7.9)	0.37 (9.7)	0.38 (9.7)		
			Stem Travel in. (mm)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)		
	Heavy Duty	-YHNC	Air Pressure psi (bar)	30 (2.1)	35 (2.4)	35 (2.4)	35 (2.4)	40 (2.8)	40 (2.8)	45 (3.1)	45 (3.1)	45 (3.1)	50 (3.5)	55 (3.8)	65,000 (4,500)	0.09
			Spring Pre-compression in. (mm)	0.12 (4.8)	0.19 (4.8)	0.19 (4.8)	0.19 (4.8)	0.25 (6.4)	0.25 (6.4)	0.31 (7.9)	0.31 (7.9)	0.31 (7.9)	0.38 (9.7)	0.44 (11.2)		
			Stem Travel in. (mm)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)		
65V9	Medium Duty	-YMNC	Air Pressure psi (bar)	55 (3.8)	65 (4.5)	65 (4.5)	75 (5.2)	75 (5.2)	85 (5.9)	95 (6.6)	95 (6.6)	95 (6.6)	95 (6.6)	100 (6.9)	65,000 (4,500)	1.04
			Spring Pre-compression in. (mm)	0.12 (3)	0.19 (4.8)	0.19 (4.8)	0.25 (6.4)	0.25 (6.4)	0.31 (7.9)	0.38 (9.7)	0.38 (9.7)	0.44 (11.2)	0.50 (12.7)	0.56 (14.2)		
			Stem Travel in. (mm)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.19 (4.8)	0.12 (3)	0.06 (1.5)			
	Heavy Duty	-YHNC	Air Pressure psi (bar)	30 (2.1)	35 (2.4)	35 (2.4)	40 (2.8)	40 (2.8)	45 (3.1)	50 (3.5)	50 (3.5)	50 (3.5)	50 (3.5)	55 (3.8)	65,000 (4,500)	
			Spring Pre-compression in. (mm)	0.12 (3)	0.19 (4.8)	0.19 (4.8)	0.25 (6.4)	0.25 (6.4)	0.31 (7.9)	0.38 (9.7)	0.38 (9.7)	0.44 (11.2)	0.50 (12.7)	0.56 (14.2)		
			Stem Travel in. (mm)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.25 (6.4)	0.19 (4.8)	0.12 (3)	0.66 (16.8)			
				1-10 (68-680)	20 (1,400)	30 (2,000)	40 (2,800)	50 (3,500)	60 (4,100)	70 (4,800)	80 (5,500)	90 (6,200)	101 (7,000)			
101V4	Heavy Duty	-YHNC	Air Pressure psi (bar)	35 (2.4)	35 (2.4)	40 (2.8)	40 (2.8)	45 (3.1)	50 (3.5)	55 (3.8)	60 (4.2)	70 (4.9)		90,000 (6,200)	0.09-0.07	
101V5			Spring Pre-compression in. (mm)	0.12 (3)	0.12 (3)	0.19 (4.8)	0.19 (4.8)	0.22 (5.6)	0.25 (6.4)	0.28 (7.1)	0.31 (7.9)	0.38 (9.7)				
101V6			Stem Travel in. (mm)	0.12 (3)	0.12 (3)	0.12 (3)	0.12 (3)	0.12 (3)	0.12 (3)	0.12 (3)	0.12 (3)	0.12 (3)				
101V9																

\* Cv values are for straight pattern valves, increase this value by 50% for angle pattern valves.  
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Values shown are for maximum to minimum stem travel position.