Ohio Valve Company
4061 Clough Woods Drive, Batavia, Ohio 45103
Phone: (513) 752-5600 FAX: (513) 752-8267
Toll free: (877)-423-2660
E-MAIL : SALES@OHIOVALVE.COM
http://www.ohiovalve.com

PNEUMATIC ACTUATOR

Ohio Valve Company

1. Pressure Ranges

40 psig ~ 100 psig double acting
40 psig ~ 100 psig spring return

2. Temperature Ranges

*Std.(NBR O-rings): -20℃(-4°F) to +80℃(+176°F)
*Lower Temp. (Silicone O-rings):-40℃(-40°F) to +80℃(+176°F)
*High Temp. (Viton O-rings):-15℃(+5°F) to +150℃(+300°F)
Note: Special grease is required for low and high temperature service condition.

3. Wide Range Available

The actuator range consists of 14 sizes, with torques from 70in.lbs. to 33500in.lbs at 80 psig air supply.

4. Operating Media

Filtered dry or lubricated air for non-corrosive gas, water or light hydraulic oil. The maximum particle size must not exceed 30 microns.

5. Stroke Adjustment

0°and 90° with standard adjustment ± 5°.

6. Lubrication

All moving parts are factory lubricated for entire life cycle of actuator.

7. Construction

Twin piston rack and pinion actuator design, suitable for indoor and outdoor installation.

8. Connections

Bottom drilling complies with ISO 5211/DIN 3337 to match valve. Interface for solenoid valve, shaft top end and top drilling for assembling accessories are in accordance with VDI/VDE-3845, NAMUR standard.

9. Inspection

Every actuator is hydraulically tested, certified and guaranteed for a minimum of 500,000 cycles.

1. Indicator

A position indicator with Namur mounting is standard on all OVC pneumatic actuators for mounting accessories.

2. Pinion

The hardened alloy steel pinion is precision ground and Nickel plated (over 25um) in order to reduce friction, provide maximum wear resistance. Full conformance with the newest standards of ISO5211 & DIN3337. The dimensions can be customized and as options, stainless steel and aluminium are also available.

3. Actuator Body

The aluminum extrusion is hard anodized(over 30um) to protect against wear and corrosion while reducing piston friction to the absolute minimum. Other options such as Nickel plating, PTFE and powder polyester painting are available.

4. End Caps

Epoxy coated(over 150um) die cast aluminum end caps provide maximum resistance against potentially corrosive elements. Other treatments such as Nickel plating & PTFE painting are available.

5. Pistons

The precisely-balanced and hard anodized treatment (over 30um)die cast aluminum pistons are fitted with high quality rings and guides. The twin rack and piston design creates a constant torque output on all actuators.

6. Travel Adjustment

The standard adjustment is ± 5° in both the open and closed positions through easily accessible external adjustment bolts.

7. High Performance Springs

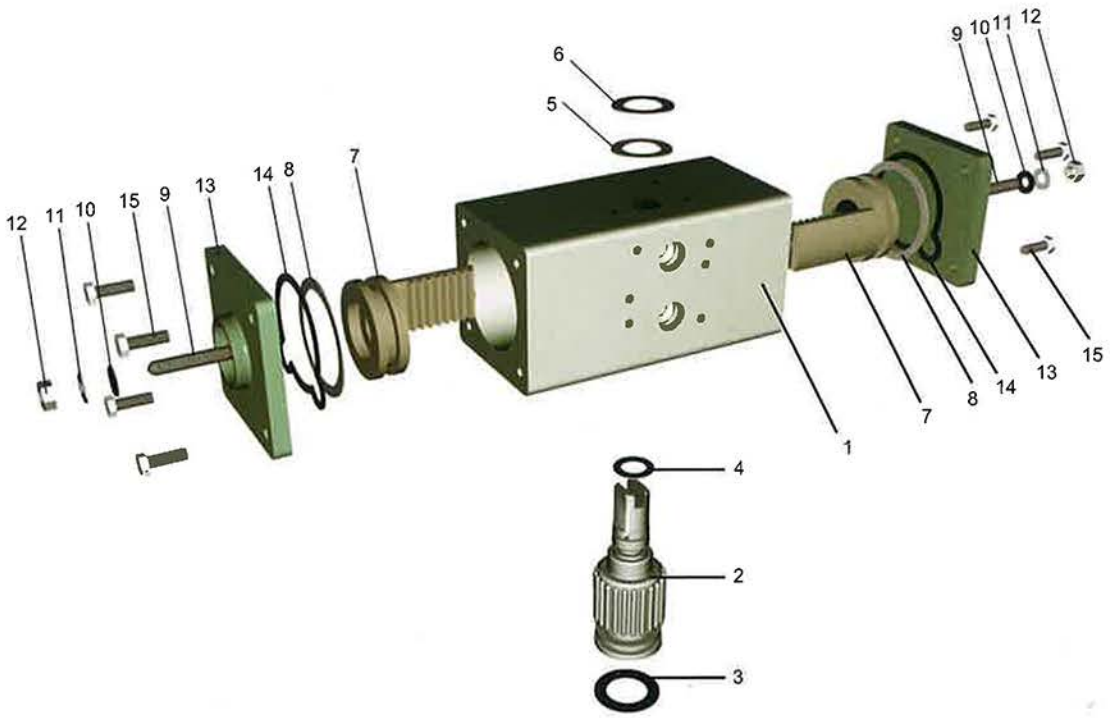
The high tensile steel springs are coated with zinc phosphate for corrosion resistance and longer service. The pre-loaded springs can be safely & rapidly disassembled.

8. Bearings & Guides

The highly durable compound material provides high trust stability with minimum friction and long life.

9. O-Rings

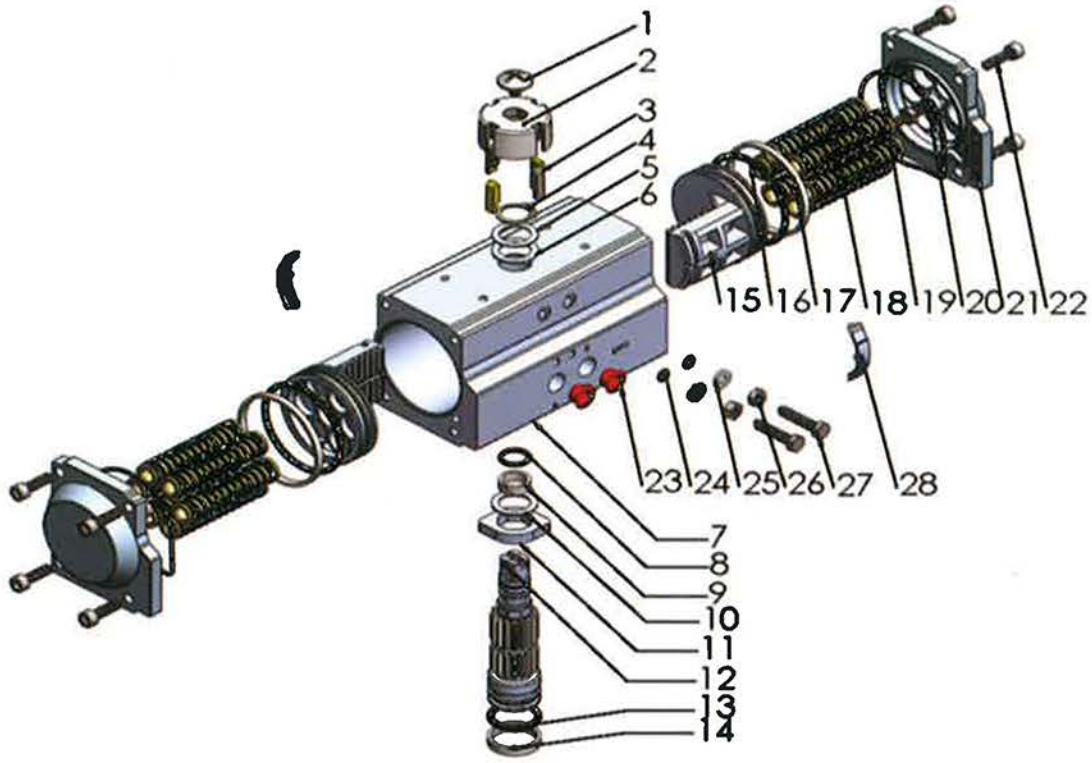
NBR O-rings provide trouble-free operation at standard temperature ranges. Viton and Silicone O-rings are available for high or low temperature applications.



Item	Description	Material	Protection	Q'ty	Optional
1	Actuator Body	Extruded Alluminum Alloy	Hard Anodized (over 30um)	1	Nickel or PTFE Plated
2	Pinion	Alloy Steel	Nickel Plated (over 25um)	1	
3*	O-Ring(Lower Pinion)	NBR		1	Viton / Silicone
4*	O-Ring(Top Pinion)	NBR		1	Viton / Silicone
5	Thrust Bearing(Pinion)	POM		1	
6	Spring Clip	Stainless Steel		1	
7	Piston	Die Cast Aluminum Alloy	Hard Anodized (over 30um)	2	
8*	Piston Seal	NBR		2	Viton / Silicone
9	Stroke Bolt	Stainless Steel		2	
10*	Stroke Bolt O-Ring	NBR		2	Viton / Silicone
11	Stroke Bolt Washer	Stainless Steel		2	
12	Stroke Bolt Retaining Nut	Stainless Steel		2	
13	End Cap	Die Cast Aluminum	Epoxy Coated (over 150um)	2	Nickel or PTFE Plated
14*	End Cap Seals	NBR		2	Viton / Silicone
15	End Cap Bolts	Stainless Steel		8	

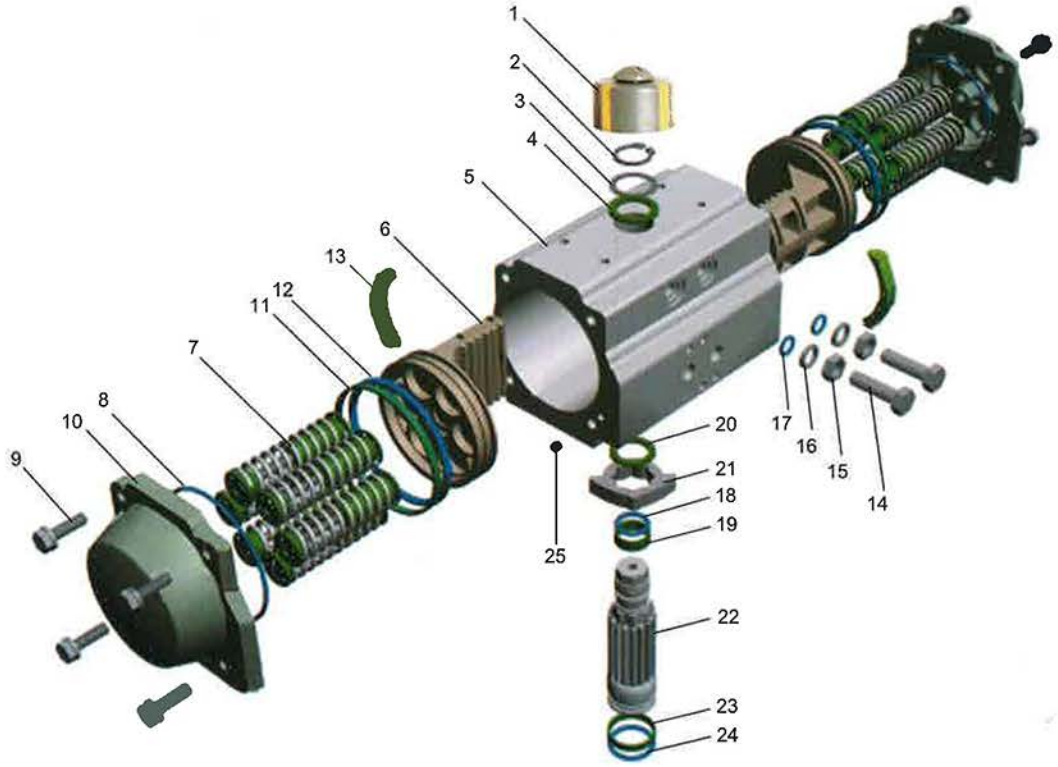
*Note: Recommended spare parts for maintenance.

Pneumatic Actuator – OV052~092SR6H Parts List



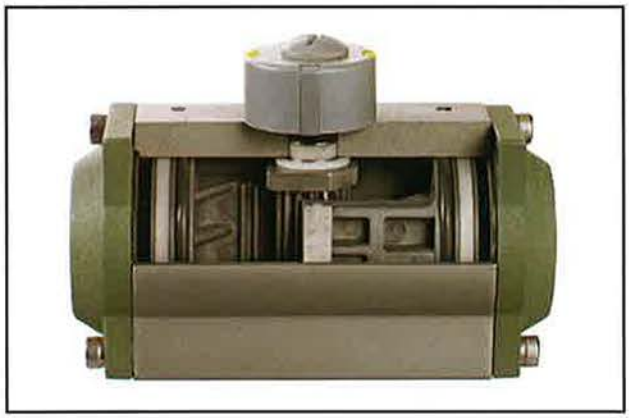
Item	Description	Material	Protection	Q'ty	Optional
1	Screw	ABS+304		1	
2	Indicator	Plastic		1	
3	Indicator Pin	ABS		4	
4	Spring Clip	Stainless Steel		1	
5	Thrust Washer (Pinion)	Stainless Steel		1	
6*	Thrust Bearing (Pinion)	POM		1	
7	Actuator Body Extruded	Extruded Aluminum Alloy	Hard Anodized (over 30μm)	1	
8*	O-Ring (Top Pinion)	NBR		1	Viton/Silicone
9*	Bearing (Top Pinion)	POM		1	
10*	Thrust Bearing (Pinion)	POM		1	
11	Stroke Cam	Stainless Steel		1	
12	Pinion	Alloy Steel	Nickel Plated (over 25μm)	1	
13*	Bearing (Lower Pinion)	POM		1	
14*	O-Ring (Lower Pinion)	NBR		1	Viton/Silicone
15	Piston	Die Cast Aluminum Alloy	Hard Anodized (over 30μm)	2	
16*	Piston Seal	NBR		2	Viton/Silicone
17*	Piston Bearing	POM		2	
18	Spring (Cartridge)	High Performance Spring Steel	Zinc Phosphate Coated	0-12	
19*	End Cap Seals	NBR		2	Viton/Silicone
20	Stroke Bolt	Stainless Steel		1	
21	End Cap	Die Cast Aluminum	Epoxy Coated (over 150μm)	2	
22	End Cap Bolts	Stainless Steel		8	
23	Plug	PE		2	
24*	Stroke Bolt O-Ring	NBR		2	Viton/Silicone
25	Stroke Bolt Washer	Stainless Steel		2	
26	Stroke Bolt Retaining Nut	Stainless Steel		2	
27	Stroke Bolt	Stainless Steel		2	
28*	Piston Guide	POM		2	

* Note: Recommended spare parts for maintenance.



Item	Description	Material	Protection	Q'ty	Optional
1	Indicator	ABS		1	
2	Spring Clip	Stainless Steel		1	
3	Thrust Washer(Pinion)	Stainless Steel		1	
4	Thrust Bearing(Pinion)	PTFE+15%Graphite		1	
5	Actuator Body	Extruded Alluminum Alloy	Hard Anodized(over 30um)	1	Nickel or PTFE Plated
6	Piston	Die Cast Aluminum Alloy	Hard Anodized(over 30um)	2	
7	Spring(Cartridge)	High Performance Spring Steel	Zinc Phosphate Coated	0-12	
8*	End Cap Seals	NBR		2	Viton / Silicone
9	End Cap Bolts	Stainless Steel		8	
10	End Cap	Die Cast Aluminum	Epoxy Coated(over 150um)	2	Nickel or PTFE Plated
11*	Piston Bearing	POM		2	
12*	Piston Seal	NBR		2	Viton / Silicone
13*	Piston Guide	POM		2	
14	Stroke Bolt	Stainless Steel		2	
15	Stroke Bolt Retaining Nut	Stainless Steel		2	
16	Stroke Bolt Washer	Stainless Steel		2	
17*	Stroke Bolt O-Ring	NBR		2	Viton / Silicone
18*	O-Ring(Top Pinion)	NBR		1	Viton / Silicone
19*	Bearing(Top Pinion)	POM		1	
20*	Thrust Bearing(Pinion)	POM		1	
21	Stroke Cam	Stainless Steel		1	
22	Pinion	Alloy Steel	Nickel Plated(over 25um)	1	
23*	Bearing(Lower Pinion)	POM		1	
24*	O-Ring(Lower Pinion)	NBR		1	Viton / Silicone
25*	Plug	NBR		2	Viton / Silicone

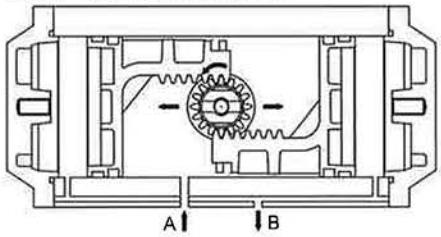
* **Note: Recommended spare parts for maintenance.**



The operating principle of double acting actuator

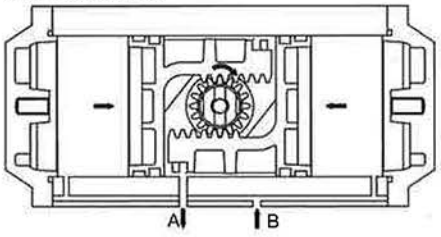
Sizing example of OVC double acting actuator:
Valve torque 800in.lbs. plus 30% safety factor= 1040in.lbs. Minimum operating pressure 80 psig. By reading down the 80 psig column the figure below 1040in.lbs. is 1169.2in.lbs., The model number shown in the left hand column is therefore OV092DAH.

CCW-counter-clockwise



Air to port A forces the pistons outwards, causing the piston to turn counter-clockwise while air is being exhausted from port B.

CW-clockwise

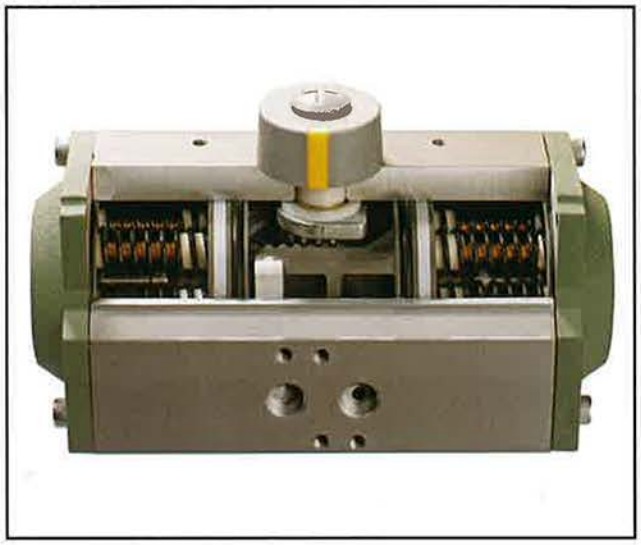


Air to port B forces the pistons inwards, causing the piston to turn clockwise while air is being exhausted from port A.

Torque Table of Double Acting Actuator

Unit:in.lbs

Model	Air Supply Pressure(Unit:Psi)						
	40	50	60	70	80	90	100
OV032DAH	39.3	49.1	58.9	68.8	78.6	88.4	98.2
OV052DAH	103.8	129.7	155.6	181.6	207.5	233.5	259.4
OV063DAH	182.8	228.4	274.1	319.8	365.5	411.2	456.9
OV075DAH	302.2	377.7	453.3	528.8	604.4	679.9	755.4
OV083DAH	370.1	462.6	555.1	647.6	740.2	832.7	925.2
OV092DAH	584.6	730.7	876.9	1023.0	1169.2	1315.3	1461.5
OV105DAH	846.1	1057.6	1269.1	1480.7	1692.2	1903.7	2115.2
OV125DAH	1498.9	1873.6	2248.3	2623.1	2997.8	3372.5	3747.2
OV140DAH	2256.2	2820.3	3384.4	3948.4	4512.5	5076.5	5640.6
OV160DAH	3438.1	4297.6	5157.1	6016.6	6876.2	7735.7	8595.2
OV190DAH	5540.8	6926.1	8311.3	9696.5	11081.7	12466.9	13852.1
OV210DAH	7614.8	9518.5	11422.2	13325.9	15229.6	17133.3	19037.0
OV240DAH	11935.1	14918.8	17902.6	20886.4	23870.1	26853.9	29837.7
OV270DAH	16783.7	20979.6	25175.5	29371.4	33567.4	37763.3	41959.2



Sizing example of OVC spring return actuator:

Spring to close when air fails(air to open):

Valve torque 350in.lbs. plus 30% safety factor = 455in.lbs. Minimum operating pressure: 80psig. The spring return OVC actuator selected is OV105SR6H-12. The OV105SR6H-12 has the following output torques:

1.air torque 0°(valve close) = 948.7in.lbs. > 455in.lbs.

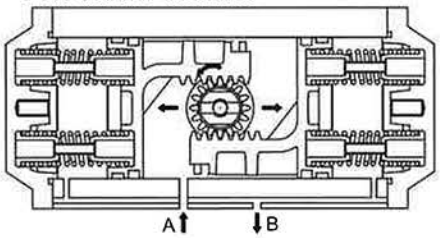
2.air torque 90°(valve open) = 475in.lbs. > 455in.lbs.

3.spring torque 90°(valve open) = 1217.2in.lbs. > 455in.lbs.

4.spring torque 0°(valve close) = 743.5in.lbs. > 455in.lbs.

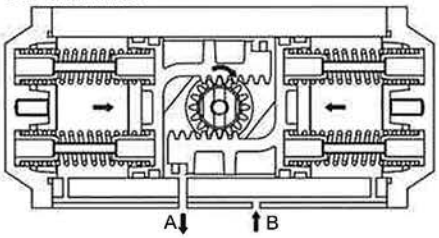
The operating principle of single acting spring return actuator

CCW-counter-clockwise



Air to port A forces the pistons outwards, causing the springs to compress. The pinion turns counter-clockwise while air is being exhausted through port B.

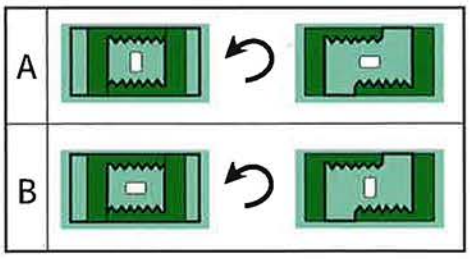
CW-clockwise



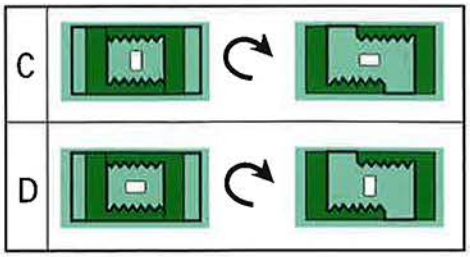
Loss of air pressure through port A allows the stored energy in the springs to force the pistons inwards. The pinion turns clockwise while air is being exhausted through port A.

Mounting Variations

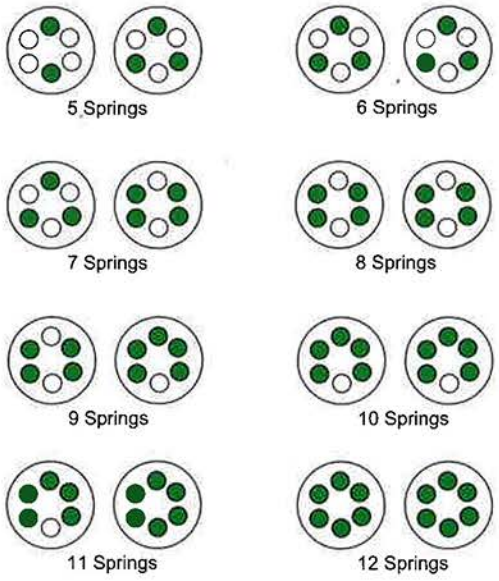
CCW-counter-clockwise



CW-clockwise



Spring Arrangement



Pneumatic Actuator -Torque Table(in.lbs)

OVC OHIO VALVE COMPANY

unit:in.lbs.

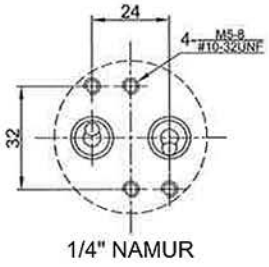
Model	Spring Set	Spring Torque		Air Supply Pressure(Unit:Psi)													
				40		50		60		70		80		90		100	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
OV052SR6H	5	35.8	59.3	67.9	44.5	93.8	70.4										
	6	43.0	71.2	60.7	32.6	86.7	58.5										
	7	50.2	83.0			79.5	46.7	105.4	72.6								
	8	57.4	94.9			72.3	34.8	98.3	60.8	124.2	86.7						
	9	64.5	106.7					91.1	48.9	117.1	74.8						
	10	71.7	118.6							109.9	63.0	135.8	88.9				
	11	78.9	130.5							102.7	51.1	128.7	77.0	154.6	103.0	180.5	128.9
	12	86.0	142.3							95.5	39.2	121.5	65.2	147.4	91.1	173.4	117.1
OV063SR6H	5	63.2	108.9	119.6	73.9	165.2	119.6										
	6	75.8	130.6	106.9	52.1	152.6	97.8										
	7	88.5	152.4			140.0	76.0	185.7	121.7								
	8	101.1	174.2			127.3	54.3	173.0	99.9	218.7	145.6						
	9	113.8	196.0					160.4	78.2	206.1	123.9						
	10	126.4	217.7							193.4	102.1	239.1	147.8				
	11	139.0	239.5							180.8	80.3	226.5	126.0	272.2	171.7	317.9	217.4
	12	151.7	261.3							168.2	58.5	213.8	104.2	259.5	149.9	305.2	195.6
OV075SR6H	5	105.3	160.5	196.8	141.7	272.4	217.3										
	6	126.4	192.6	175.8	109.6	251.3	185.2										
	7	147.5	224.7			230.3	153.1	305.8	228.6								
	8	168.5	256.7			209.2	121.0	284.7	196.5	360.3	272.1						
	9	189.6	288.8					263.7	164.4	339.2	240.0						
	10	210.7	320.9							318.2	207.9	393.7	283.4				
	11	231.7	353.0							297.1	175.8	372.6	251.3	448.2	326.9		
	12	252.8	385.1							276.0	143.7	351.6	219.2	427.1	294.8	502.7	370.3
OV083SR6H	5	128.3	193.3	241.8	176.8	334.3	269.3										
	6	153.9	232.0	216.2	138.1	308.7	230.6										
	7	179.6	270.6			283.0	192.0	375.6	284.5								
	8	205.2	309.3			257.4	153.3	349.9	245.8	442.4	338.3						
	9	230.9	348.0					324.3	207.2	416.8	299.7						
	10	256.5	386.6							391.1	261.0	483.7	353.5				
	11	282.2	425.3							365.5	222.4	458.0	314.9	550.5	407.4		
	12	307.8	463.9							339.8	183.7	432.4	276.2	524.9	368.7	617.4	461.3
OV092SR6H	5	237.4	353.7	347.2	230.9	493.4	377.1										
	6	284.9	424.4	299.7	160.2	445.9	306.3										
	7	332.3	495.2			398.4	235.6	544.6	381.7								
	8	379.8	565.9			350.9	164.8	497.1	311.0	643.2	457.1						
	9	427.3	636.6					449.6	240.3	595.8	386.4						
	10	474.8	707.4							548.3	315.7	694.4	461.8				
	11	522.2	778.1							500.8	244.9	646.9	391.1	793.1	537.2		
	12	569.7	848.8							453.3	174.2	599.5	320.3	745.6	466.5	891.8	612.6
OV105SR6H	5	309.8	507.2	536.3	338.9	747.8	550.5										
	6	371.7	608.6	474.3	237.5	685.9	449.0										
	7	433.7	710.0			623.9	347.6	835.4	559.1								
	8	495.7	811.5			562.0	246.2	773.5	457.7	985.0	669.2						
	9	557.6	912.9					711.5	356.2	923.0	567.8						
	10	619.6	1014.3							861.1	466.3	1072.6	677.9				
	11	681.5	1115.8							799.1	364.9	1010.7	576.4	1222.2	787.9		
	12	743.5	1217.2							737.2	263.5	948.7	475.0	1160.2	686.5	1371.7	898.0
OV125SR6H	5	536.6	822.0	962.3	676.8	1337.0	1051.6										
	6	643.9	986.4	855.0	512.4	1229.7	887.2										
	7	751.2	1150.9			1122.4	722.8	1497.1	1097.5								
	8	858.5	1315.3			1015.1	558.3	1389.8	933.1	1764.5	1307.8						
	9	965.9	1479.7					1282.5	768.7	1657.2	1143.4						
	10	1073.2	1644.1							1549.9	979.0	1924.6	1353.7				
	11	1180.5	1808.5							1442.5	814.6	1817.3	1189.3	2192.0	1564.0		
	12	1287.8	1972.9							1335.2	650.2	1710.0	1024.9	2084.7	1399.6	2459.4	1774.3

Pneumatic Actuator -Torque Table(in.lbs)

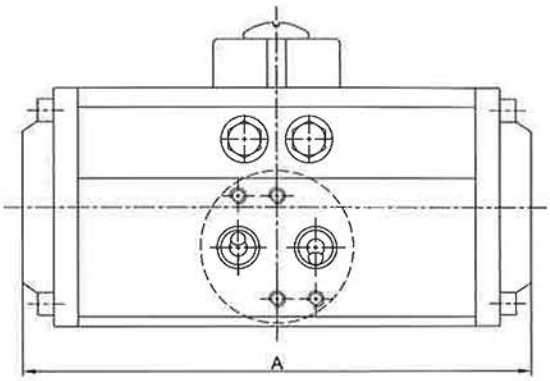
OHIO VALVE COMPANY

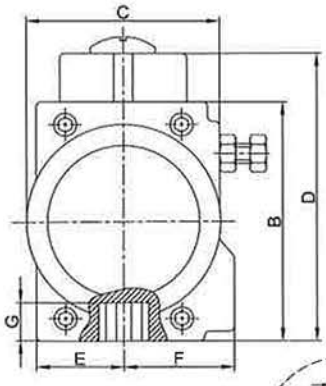
unit:in.lbs.

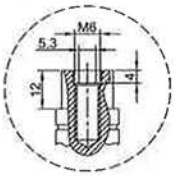
Model	Spring Set	Spring Torque		Air Supply Pressure(Unit:Psi)													
				40		50		60		70		80		90		100	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
OV140SR6H	5	783.3	1254.6	1472.9	1001.6	2037.0	1565.7										
	6	940.0	1505.6	1316.3	750.7	1880.3	1314.7										
	7	1096.6	1756.5			1723.7	1063.8	2287.7	1627.9								
	8	1253.3	2007.4			1567.0	812.9	2131.1	1377.0	2695.1	1941.0						
	9	1410.0	2258.3					1974.4	1126.0	2538.5	1690.1						
	10	1566.6	2509.3							2381.8	1439.2	2945.9	2003.2				
	11	1723.3	2760.2							2225.1	1188.2	2789.2	1752.3	3353.3	2316.4		
	12	1880.0	3011.1							2068.5	937.3	2632.5	1501.4	3196.6	2065.4	3760.7	2629.5
OV160SR6H	5	1231.4	1930.0	2206.7	1508.1	3066.2	2367.6										
	6	1477.7	2316.0	1960.4	1122.1	2819.9	1981.7										
	7	1724.0	2701.9			2573.7	1595.7	3433.2	2455.2								
	8	1970.2	3087.9			2327.4	1209.7	3186.9	2069.2	4046.4	2928.7						
	9	2216.5	3473.9					2940.6	1683.2	3800.1	2542.7						
	10	2462.8	3859.9							3553.9	2156.7	4413.4	3016.2				
	11	2709.1	4245.9							3307.6	1770.7	4167.1	2630.3	5026.6	3489.8		
	12	2955.3	4631.9							3061.3	1384.7	3920.8	2244.3	4780.3	3103.8	5639.9	3963.3
OV190SR6H	5	1924.2	2968.6	3616.6	2572.2	5001.8	3957.4										
	6	2309.0	3562.4	3231.8	1978.5	4617.0	3363.7										
	7	2693.9	4156.1			4232.2	2770.0	5617.4	4155.2								
	8	3078.7	4749.8			3847.3	2176.3	5232.5	3561.5	6617.7	4946.7						
	9	3463.6	5343.5					4847.7	2967.7	6232.9	4352.9						
	10	3848.4	5937.3							5848.1	3759.2	7233.3	5144.4				
	11	4233.3	6531.0							5463.2	3165.5	6848.4	4550.7	8233.6	5935.9		
	12	4618.1	7124.7							5078.4	2571.8	6463.6	3957.0	7848.8	5342.2	9234.0	6727.4
OV210SR6H	5	2644.7	4042.7	4970.1	3572.1	6873.8	5475.8										
	6	3173.6	4851.2	4441.2	2763.6	6344.9	4667.3										
	7	3702.6	5659.8			5816.0	3858.8	7719.7	5762.5								
	8	4231.5	6468.3			5287.0	3050.2	7190.7	4953.9	9094.4	6857.6						
	9	4760.4	7276.8					6661.8	4145.4	8565.5	6049.1						
	10	5289.4	8085.4							8036.6	5240.5	9940.3	7144.2				
	11	5818.3	8893.9							7507.6	4432.0	9411.3	6335.7	11315.0	8239.4		
	12	6347.2	9702.5							6978.7	3623.5	8882.4	5527.2	10786.1	7430.9	12689.8	9334.6
OV240SR6H	5	4146.3	6318.6	7788.8	5616.5	10772.6	8600.3										
	6	4975.5	7582.3	6959.6	4352.8	9943.3	7336.6										
	7	5804.8	8846.0			9114.1	6072.9	12097.8	9056.6								
	8	6634.0	10109.7			8284.8	4809.1	11268.6	7792.9	14252.4	10776.7						
	9	7463.3	11373.4					10439.3	6529.2	13423.1	9513.0						
	10	8292.5	12637.1							12593.9	8249.3	15577.6	11233.0				
	11	9121.8	13900.8							11764.6	6985.5	14748.4	9969.3	17732.1	12953.1		
	12	9951.0	15164.5							10935.4	5721.8	13919.1	8705.6	16902.9	11689.4	19886.7	14673.1
OV270SR6H	5	5897.4	8605.8	10886.3	8177.9	15082.2	12373.8										
	6	7076.9	10327.0	9706.8	6456.7	13902.7	10652.6										
	7	8256.4	12048.2			12723.2	8931.4	16919.1	13127.4								
	8	9435.9	13769.3			11543.7	7210.3	15739.7	11406.2	19935.6	15602.1						
	9	10615.4	15490.5					14560.2	9685.0	18756.1	13881.0						
	10	11794.8	17211.7							17576.6	12159.8	21772.5	16355.7				
	11	12974.3	18932.8							16397.1	10438.6	20593.0	14634.5	24789.0	18830.5		
	12	14153.8	20654.0							15217.6	8717.5	19413.6	12913.4	23609.5	17109.3	27805.4	21305.2

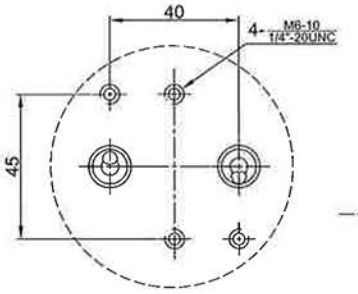


1/4" NAMUR









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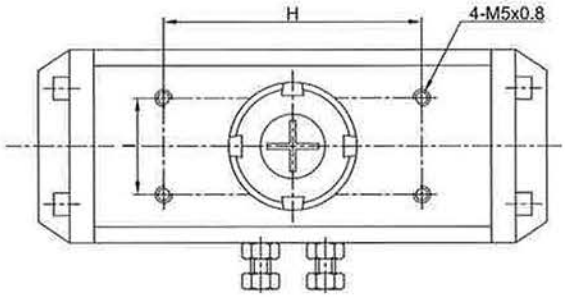

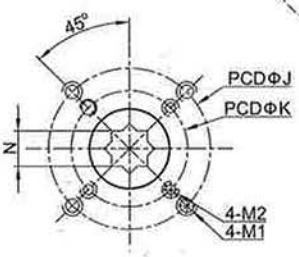

Dimension Table

Unit: mm / inch

Model	A	B	C	D	E	F	G	H	I	N	0°	120°	180°	J	K	M1	M2	Air Inlet
OV032	110	45	45	65	22.5	22.5	12	50	25	9	30	--	--	F03	--	M5x7.5	--	1/8"
	4.33	1.77	1.77	2.56	0.89	0.89	0.47	1.97	0.98	0.35	1.18					#10-24UNC		
OV052	157.5	74	60	94	30	41	14	80	30	11	40	168.9	190	F05	F03	M6x10	M5x7.5	1/8"or1/4"
	6.20	2.91	2.36	3.70	1.18	1.61	0.55	3.15	1.18	0.43	1.57	6.65	7.48			1/4"-20UNC	#10-24UNC	
OV063	190	88	69	108	36	45	18	80	30	14	40	202.5	228	F07	F05	M8x13	M6x10	1/8"or1/4"
	7.48	3.46	2.72	4.25	1.42	1.77	0.71	3.15	1.18	0.55	1.57	7.97	8.98			5/16"-18UNC	1/4"-20UNC	
OV075	205.5	100	79	120	42	52	20	80	30	14	40	221.5	251	F07	F05	M8x13	M6x10	1/8"or1/4"
	8.09	3.94	3.11	4.72	1.65	2.05	0.79	3.15	1.18	0.55	1.57	8.72	9.88			5/16"-18UNC	1/4"-20UNC	
OV083	211	109	88	129	46	52.5	21	80	30	17	40	227.5	257	F07	F05	M8x13	M6x10	1/8"or1/4"
	8.31	4.29	3.46	5.08	1.81	2.07	0.83	3.15	1.18	0.67	1.57	8.96	10.12			5/16"-18UNC	1/4"-20UNC	
OV092	259	120	97.7	140	51	57.5	22	80	30	17	40	276	315.5	F07	F05	M8x13	M6x10	1/8"or1/4"
	10.20	4.72	3.85	5.51	2.01	2.26	0.87	3.15	1.18	0.67	1.57	10.87	12.42			5/16"-18UNC	1/4"-20UNC	
OV105	285	133	105.7	153	57.7	64	26	80	30	22	40	308	350	F10	F07	M10x16	M8x13	1/4"
	11.22	5.24	4.16	6.02	2.27	2.52	1.02	3.15	1.18	0.87	1.57	12.13	13.78			3/8"-16UNC	5/16"-18UNC	
OV125	340	155	120.5	175	67.5	70	27.5	80	30	22	65	366.5	418.5	F10	F07	M10x16	M8x13	1/4"
	13.39	6.10	4.74	6.89	2.66	2.76	1.08	3.15	1.18	0.87	2.56	14.43	16.48			3/8"-16UNC	5/16"-18UNC	
OV140	411.5	171.5	137	192	76	77	32	80	30	27	65	445.8	508.5	F12	F10	M12x20	M10x16	1/4"
	16.20	6.75	5.39	7.56	2.99	3.03	1.26	3.15	1.18	1.06	2.56	17.55	20.02			1/2"-13UNC	3/8"-16UNC	
OV160	475	197	159	217	86	87.5	34	80	30	27	65	512.8	586	F12	F10	M12x20	M10x16	1/4"
	18.70	7.76	6.26	8.54	3.39	3.44	1.34	3.15	1.18	1.06	2.56	20.19	23.07			1/2"-13UNC	3/8"-16UNC	
OV190	534	230	186	260	103	103	40	130	30	36	78	577	660.7	F14	--	M16x24	--	1/4"
	21.02	9.06	7.32	10.24	4.06	4.06	1.57	5.12	1.18	1.42	3.07	22.72	26.01			5/8"-11UNC		
OV210	568.5	255	202	285	113	113	40	130	30	36	78	614.7	709	F14	--	M16x24	--	1/4"
	22.38	10.04	7.95	11.22	4.45	4.45	1.57	5.12	1.18	1.42	3.07	24.20	27.91			5/8"-11UNC		
OV240	668	292	234	322	129.5	129	50	130	30	46	78	725	838	F16	--	M20x26	--	1/4"or3/8"
	26.30	11.50	9.21	12.68	5.10	5.08	1.97	5.12	1.18	1.81	3.07	28.54	32.99			3/4"-10UNC		
OV270	744.5	320	264.5	350	146.5	147	50	130	30	46	78	807	932.5	F16	--	M20x26	--	1/4"or1/2"
	29.31	12.60	10.41	13.78	5.77	5.79	1.97	5.12	1.18	1.81	3.07	31.77	36.71			3/4"-10UNC		

Air Consumption - Air Volume Opening & Closing

Model	Air Volume@opening (cu.in)	Air Volume@closinging (cu.in)	Model	Air Volume@opening (cu.in)	Air Volume@closinging (cu.in)
OV32	1.71	2.32	OV125	73.22	97.62
OV52	5.49	7.32	OV140	103.72	146.43
OV63	8.54	12.20	OV160	158.63	225.75
OV75	12.81	18.30	OV190	256.25	359.98
OV83	17.69	25.02	OV210	347.77	500.31
OV92	29.90	43.32	OV240	549.12	780.97
OV105	42.71	60.40	OV270	768.76	1092.13

The Table of Actuators Weight & Opening Closing Time

Model	OV032		OV052		OV063		OV075		OV083		OV092		OV105	
	D	S	D	S	D	S	D	S	D	S	D	S	D	S
Screw stroke adj. for 1° adj. need	-----		1/5 turn		1/5 turn		1/5 turn		1/5 turn		1/4 turn		1/4 turn	
Opening time (Sec.)	0.03	---	0.2	0.25	0.25	0.3	0.3	0.35	0.4	0.5	0.5	0.6	0.7	0.8
Closing time (Sec.)	0.03	---	0.25	0.3	0.3	0.35	0.4	0.5	0.5	0.6	0.7	0.9	0.9	1.1
Approximate weight (Kg/Lbs)	0.5/1.1	---	1.0/2.2	1.0/2.2	1.6/3.5	1.8/4.0	2.6/5.7	3.1/6.8	3.1/6.8	3.6/7.9	4.9/10.8	5.7/12.5	6.5/14.3	7.7/16.9

Model	OV125		OV140		OV160		OV190		OV210		OV240		OV270	
	D	S	D	S	D	S	D	S	D	S	D	S	D	S
Screw stroke adj. for 1° adj. need	1/4 turn		1/4 turn		1/4 turn		1/3 turn		1/3 turn		1/3 turn		1/3 turn	
Opening time (Sec.)	0.9	1.1	1.3	1.5	1.6	1.8	2.2	2.4	2.9	3.4	3.8	4.3	4.5	5.0
Closing time (Sec.)	1.2	1.4	1.6	1.9	1.9	2.2	2.6	3.0	3.8	4.1	4.4	5.0	5.0	5.5
Approximate weight (Kg/Lbs)	9.9/21.8	11/24.2	13.8/30.4	16.3/35.9	19/41.8	24/52.8	28/61.6	34/74.8	37/81.4	45/99	52/114.4	64/140.8	85/187	104/228.8

Order Information

Type	Model	Spring Set	Seals	Options
DAH	032	**Blank**	**Blank**	**120**
Double Acting Actuator	052	(Double Acting Actuator)	(standard NBR seals)	120°operation
	063	05		**180**
SR6H	075	06	**HT= Viton seals**	180°operation
	083	07	(for high temperature)	**SS**
	092	08		Stainless Steel Housing
	105	09	**LT= Silicone seals**	
	125	10	(for low temperature)	
	140	11		
	160	12		
	190			
	210			
	240			
	270			

Note: The part numbers are represented as the following: Type-Model-Spring Set-Seals-Options

Ohio Valve Company
4061 Clough Woods Drive, Batavia, Ohio 45103
Phone: (513) 752-5600 FAX: (513) 752-8267
Toll free: (877)-423-2660
E-MAIL : SALES@OHIOVALVE.COM
http://www.ohiovalve.com