

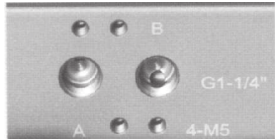
### Operating conditions:

- Operating media:**  
Dry or lubricated air, or the non-corrosive gasses the maximum particle diameter must less than 30 μm
- Air supply pressure:**  
The Min supply pressure is 2 Bar  
The Max supply pressure is 8 Bar
- Operating temperature:**  
Standard: -20°C ~ +80°C  
Low temperature: -40°C ~ +80°C  
High temperature: -20 ~ +160°C
- Travel adjustment:**  
Have adjustment range of ±5° for the rotation at 0° and 90°
- Use occasions:** Indoor or outdoor installation



### Control type :

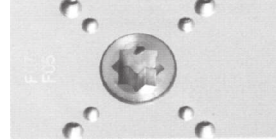
Double acting and spring return



Air supply connection is designed in accordance with NAMUR Standard to install solenoid valves.

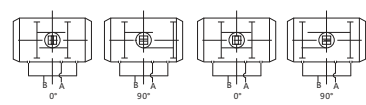


The NAMUR drive pinion and the NAMUR top mounting connection permit direct installation of accessories such as limit switch box and positioner.



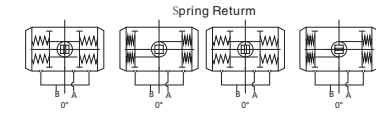
Bottom mounting connection is designed in accordance with ISO5211 and DIN3337 standards for direct mounting with valve gear boxes or mounting brackets.

### Working Principle



Anticlockwise Rotation

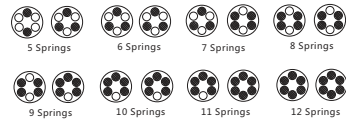
Clockwise Rotation



Counter Clockwise Rotation

Clockwise Rotation

### Spring Positions of Spring Return Actuator



### Double Acting Actuator Output Torque(Unit:Nm)

Model	Input air supply pressure (unit:Bar)							
	2	3	4	5	6	7	8	
MA32D	3.1	4.7	6.2	7.8	9.4	11	12.5	
MA52D	8.5	12.7	17	21.2	25.5	29.7	34	
MA63D	15	22.5	30	37.5	44.9	52.4	59.7	
MA75D	21	31.8	42.4	53	63.6	74.2	84.8	
MA83D	32.5	48.7	65	81.2	97.4	113.7	130	
MA92D	46.5	69.8	93	116.3	140	162.9	186	
MA105D	69.3	104	138.5	173.2	207.8	242.5	277	
MA115D	95	129	172	215	258	301	344	
MA125D	108	162	216	270	324	378	432	
MA140D	184.7	277	369.5	461.8	554	646.5	739	
MA160D	281.5	422	563	704	844	985	1126	
MA190D	453	680	907	1135	1361	1587	1814	
MA210D	554	831	1108	1384	1662	1939	2216	
MA240D	814	1221	1628	2035	2442	2849	3256	
MA270D	1236	1854	2472	3090	3708	4326	4944	

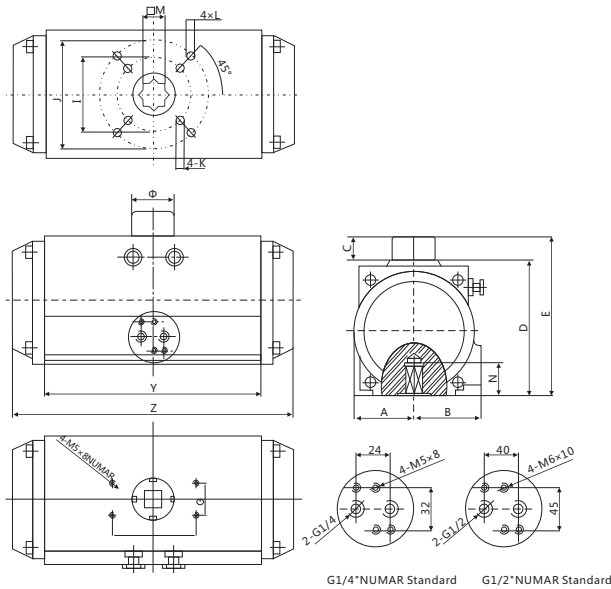
### Spring Return Actuator Output Torque(Unit:Nm)

	Spring Qty	Input air supply pressure (unit:Bar)												Output Torque Spring			
		3Bar		4Bar		5Bar		6Bar		7Bar		8Bar					
		0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End		
MA52SR	5	8.8	7.3	13.0	11.6										5.4	4.0	
	6	8.0	6.3	12.2	10.5	16.5	14.8								6.5	4.7	
	7	8.2	5.2	11.5	9.4	15.7	13.7	20.0	17.9						7.6	5.5	
	8	6.4	4.1	10.7	8.3	14.9	12.6	19.2	16.8	23.4	21.1				8.6	6.3	
	9			9.9	7.3	14.1	11.5	18.4	15.8	22.6	20.0	26.9	24.3	9.7	7.1		
	10			9.1	6.2	13.3	10.4	17.6	14.7	21.8	18.9	26.1	23.2	10.8	7.9		
	11					12.5	9.4	16.8	13.6	21.0	17.9	25.3	22.1	11.9	8.7		
	12					11.8	8.3	16.0	12.5	20.3	16.8	24.5	21.0	13.0	9.5		
	MA63SR	5	15.7	12.5	23.1	20.0										9.9	6.8
		6	14.3	10.5	21.8	18.0	29.3	25.5								11.9	8.1
		7	13.0	8.5	20.4	16.0	27.9	23.5	35.4	31.0						13.9	9.5
		8	11.6	6.5	19.1	14.0	26.6	21.5	34.0	29.0	41.5	36.5				15.9	10.8
9				17.7	12.0	25.2	19.5	32.7	27.0	40.2	34.5	47.6	42.0	17.9	12.2		
10				16.4	10.0	23.8	17.5	31.3	25.0	38.8	32.5	46.3	40.0	19.9	13.6		
11						22.5	15.5	30.0	23.0	37.5	30.5	44.9	38.0	21.9	14.9		
12						21.1	13.5	28.6	21.0	36.1	28.5	43.6	36.0	23.9	16.3		
MA75SR		5	27.0	21.6	39.3	34.0										15.5	10.2
		6	24.9	18.5	37.3	30.9	49.7	43.3								18.6	12.2
		7	22.9	15.5	35.3	27.8	47.6	40.2	60.0	52.6						21.7	14.2
		8	20.9	12.4	33.2	24.7	45.6	37.1	58.0	49.5	70.4	61.8				24.8	16.2
	9			31.2	21.6	43.6	34.0	56.0	46.4	68.3	58.7	80.7	71.1	27.8	18.3		
	10			29.2	18.5	41.6	30.9	53.9	43.3	66.3	55.7	78.8	68.0	30.9	20.3		
	11					39.5	27.8	51.9	40.2	64.3	52.6	76.6	64.9	34.0	22.3		
	12					37.5	24.7	49.9	37.1	62.2	49.5	74.6	61.8	37.1	24.4		



## MAXAIR Pneumatic actuator

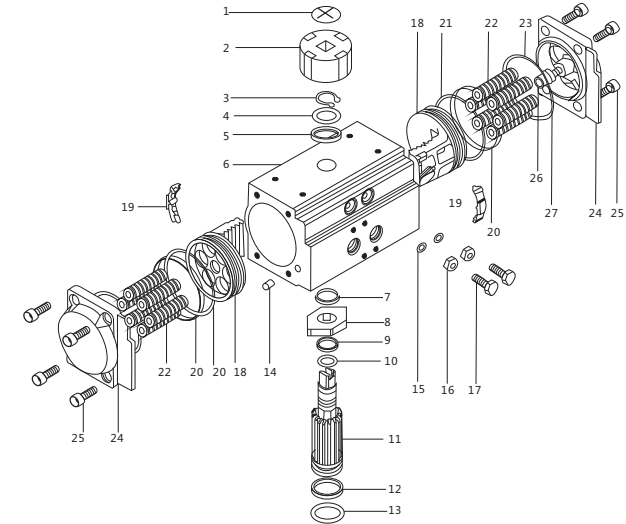
### General Drawing



### Dimensions

Model	A	B	C	D	E	G	H	I	J	K	L	M	N	Z	¢	Air Supply	
MA32	DA/SR	22.5	22.5	20	45	65	30	50	-	F03	-	M5×8	9×9	15	126	34	G1/8"
MA52	DA/SR	30	41	20	72	92	30	80	F03	F05	M5×8	M6×10	11×11	15	145	34	G1/4"
MA63	DA/SR	36	46	20	89	109	30	80	F05	F07	M6×10	M8×12	14×14	15	169	34	G1/4"
MA75	DA/SR	42	52	20	100	120	30	80	F05	F07	M6×10	M8×12	14×14	15	201	34	G1/4"
MA83	DA/SR	46	55	20	109	129	30	80	F05	F07	M6×10	M8×12	14×14	15	209	34	G1/4"
MA92	DA/SR	51	57.5	20	117	137	30	80	F05	F07	M6×10	M8×12	17×17	17	242	41	G1/4"
MA105	DA/SR	58	64	20	134	154	30	80	F07	F10	M8×12	M10×16	22×22	25	275	41	G1/4"
MA115	DA/SR	64.5	74.5	40	145	185	30	80	F07	F10	M8×12	M10×16	22×22	25	316	62	G1/4"
MA125	DA/SR	67.5	70	30	157	187	30	80	F07	F10	M8×12	M10×16	22×22	25	332	41	G1/4"
MA140	DA/SR	76	77	30	174	204	30	130	F10	F12	M10×16	M12×20	27×27	30	385	62	G1/4"
MA160	DA/SR	86.5	87.5	30	199	229	30	130	F10	F12	M10×16	M12×20	27×27	30	450	62	G1/4"
MA190	DA/SR	103	103	30	233	263	30	130	F10	F12	M10×16	M12×20	36×36	34	507	62	G1/4"
MA210	DA/SR	113	113	30	257	287	30	130	-	F12	-	M12×20	36×36	34	562	79	G1/4"
MA240	DA/SR	129	129	30	293	323	30	130	-	F16	-	M20×24	36×36	34	646	79	G1/4"
MA270	DA/SR	146	146	30	333	363	30	130	-	F16	-	M20×24	46×46	52	722	79	G1/4"

## MAXAIR Pneumatic actuator



### Parts and Materials

No	Parts Name	Qty	Material	Anti-corrosive	Optional Material
1	Indicator screw	1			
2	Indicator	1			
3	Spring Clip	1	Stainless steel		
4	Washer	1	Stainless steel		
5	Outer Gasket	1	Engineering plastics		
6	Cylinder Body	1	Cast aluminum	Hard anodizing	
7	Inner Gasket	1	Engineering plastics		
8	Cam	1	Alloy steel		Viton/Silicone Rubber
9	Oring(Pinion Top)	1	NBR		
10	Bearing(Pinion Top)	1	Engineering plastics		
11	Pinion	1	Alloy steel	Nickel plating	Stainless Steel
12	Bearing(Pinion Botom)	1	Engineering plastics		
13	Oring(Pinion Botom)	1	NBR		Viton/Silicone Rubber
14	Plug	2	NBR		Viton/Silicone Rubber
15	Adjusting Screw Oring	2	NBR		Viton/Silicone Rubber
16	Adjusting Screw Nut	2	Stainless Steel		
17	Adjusting Bolt	2	Stainless Steel		
18	Piston	2	Engineering Plastics	Oxidation/Zinc Plating	Stainless Steel
19	Piston Guide	2	Engineering Plastics		
20	Piston Bearing Piston	2	Engineering Plastics		
21	Oring	2	NBR		Viton/Silicone Rubber
22	Spring	0-12	Spring Steel	Dipping Paint	
23	End Cover Oring	2	NBR		Viton/Silicone Rubber
24	End Cover	2	Cast Aluminum	Powder Coating	
25	End Cover Bolt Limit	8	Stainless Steel		
26	Bolt	2	Stainless Steel		
27	Limit Nut	2	Stainless Steel		