
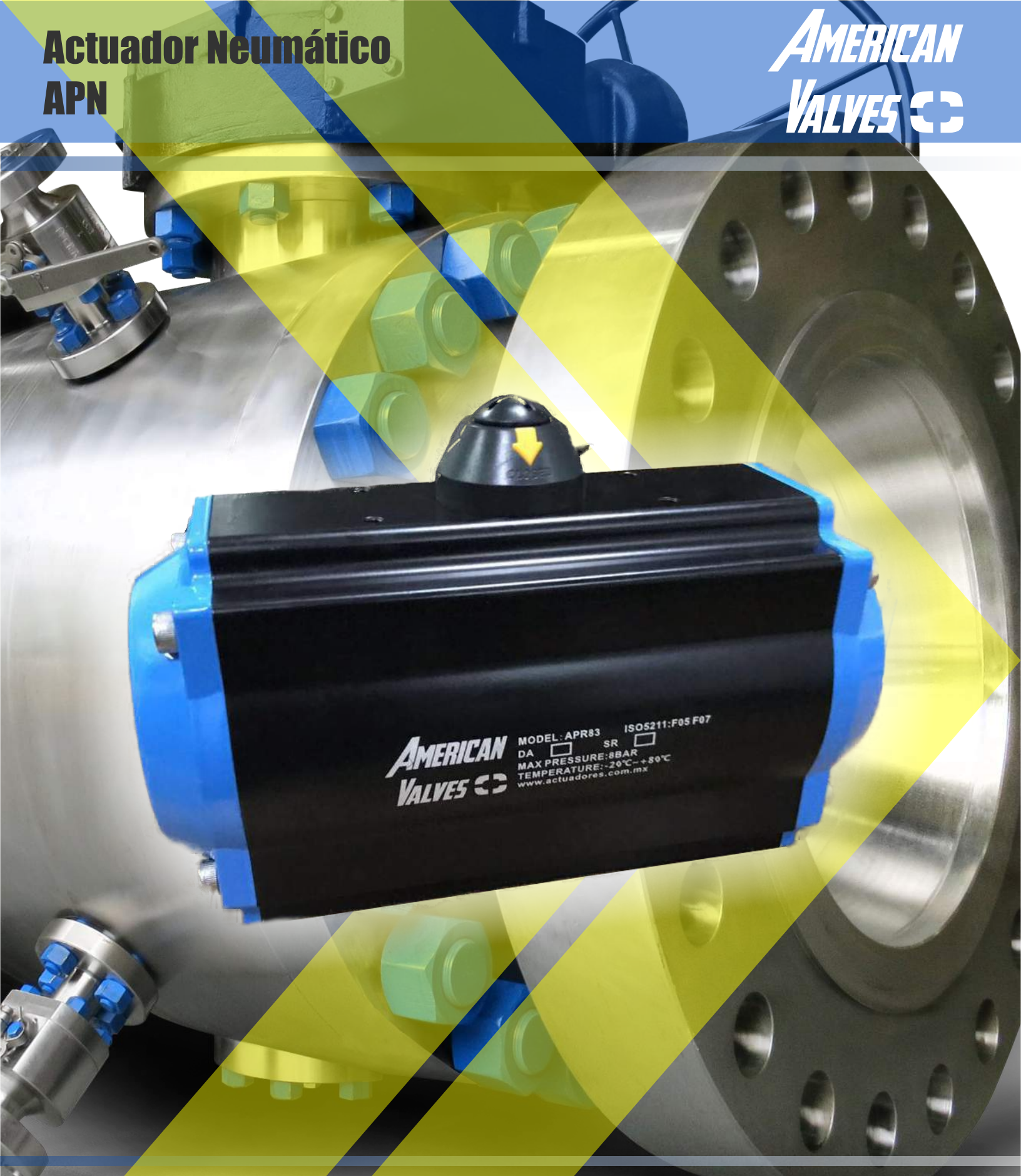


Actuador Neumático APN

**AMERICAN
VALVES** 



**AMERICAN
VALVES** 

MODEL: APR83 ISO5211:F05 F07
DA SR
MAX PRESSURE: 8BAR
TEMPERATURE: -20°C - +80°C
www.actuadores.com.mx



SIINPRO
SINERGIA INDUSTRIAL DE PROCESOS SA DE CV

www.actuadores.com.mx

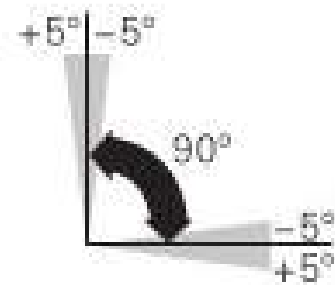
Actuador Neumático

contacto@actuadores.com.mx

Actuador Neumatico APN

Condiciones de Operación

- 1.- Operating Media
Dry or lubricated air, or the non-corrosive gases
The maximum particle diameter must less than $30 \mu m$
- 2.- Air supllly pressure is 2 Bar
The maximum supply pressure is 8 Bar
- 3.- Operating Temperature
Standart : $-20^{\circ}C \pm 80^{\circ}C$
Low temperature: $-40^{\circ}C \pm 80^{\circ}C$
High temperature: $-20^{\circ}C \pm 160^{\circ}C$
- 4.- Travel Adjustment
Have adjustment range of $\pm 5^{\circ}$ for the rotation
at 0° and 90°
- 5.- Application
Either indoor or outdoor



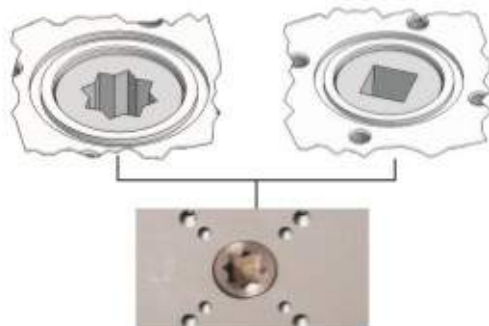
Tipo de Operación Doble acting and Spring return



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



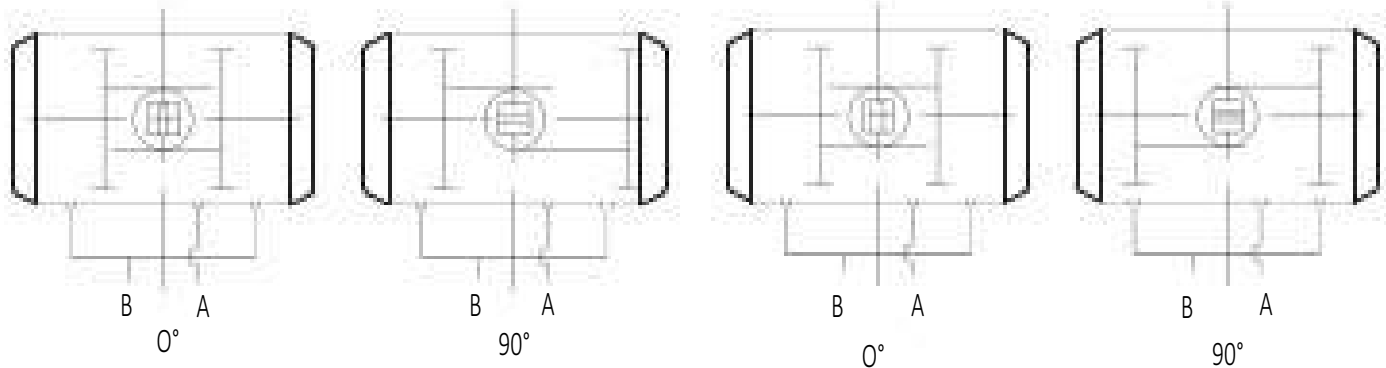
Bottom mounting connection is designed in accordance with ISO 5211 and DIN 3337 standards for direct mounting with valve gear boxes or mounting brackets.

Principio de Trabajo

Double acting

Counter Clockwise Rotation

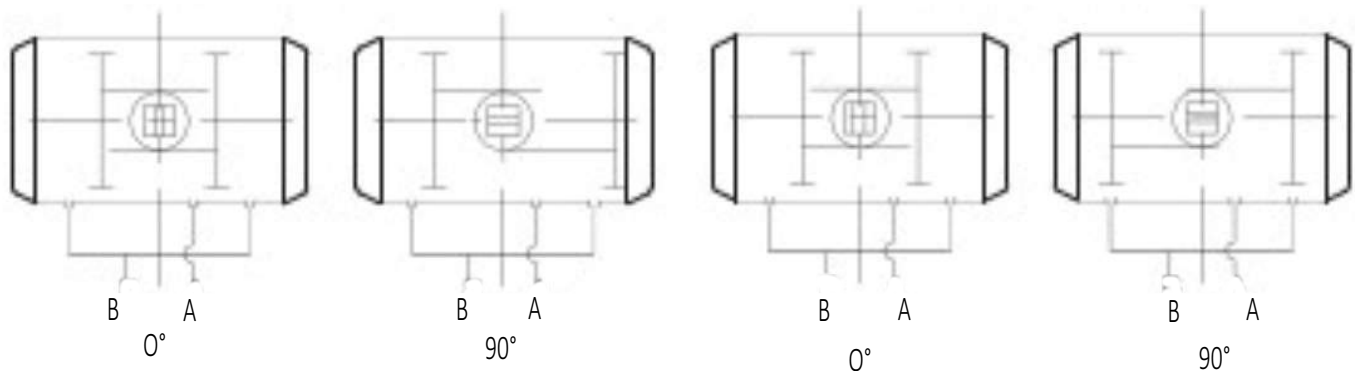
Clockwise Rotation



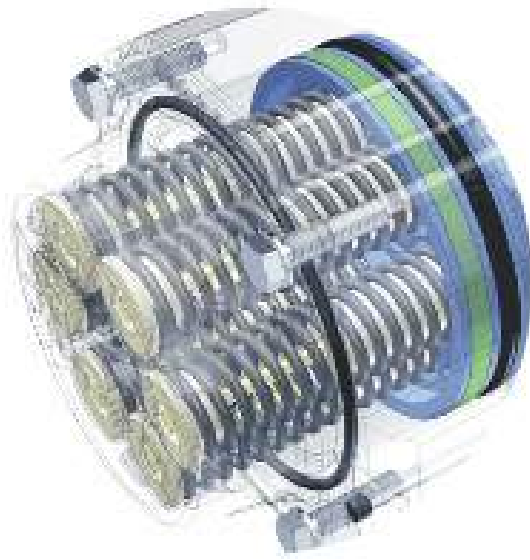
Spring Return

Counter Clockwise Rotation

Clockwise Rotation



Actuadores Retorno Accionados por Resorte



5 springs



6 springs



7 springs



8 springs



9 springs



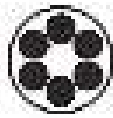
10 springs



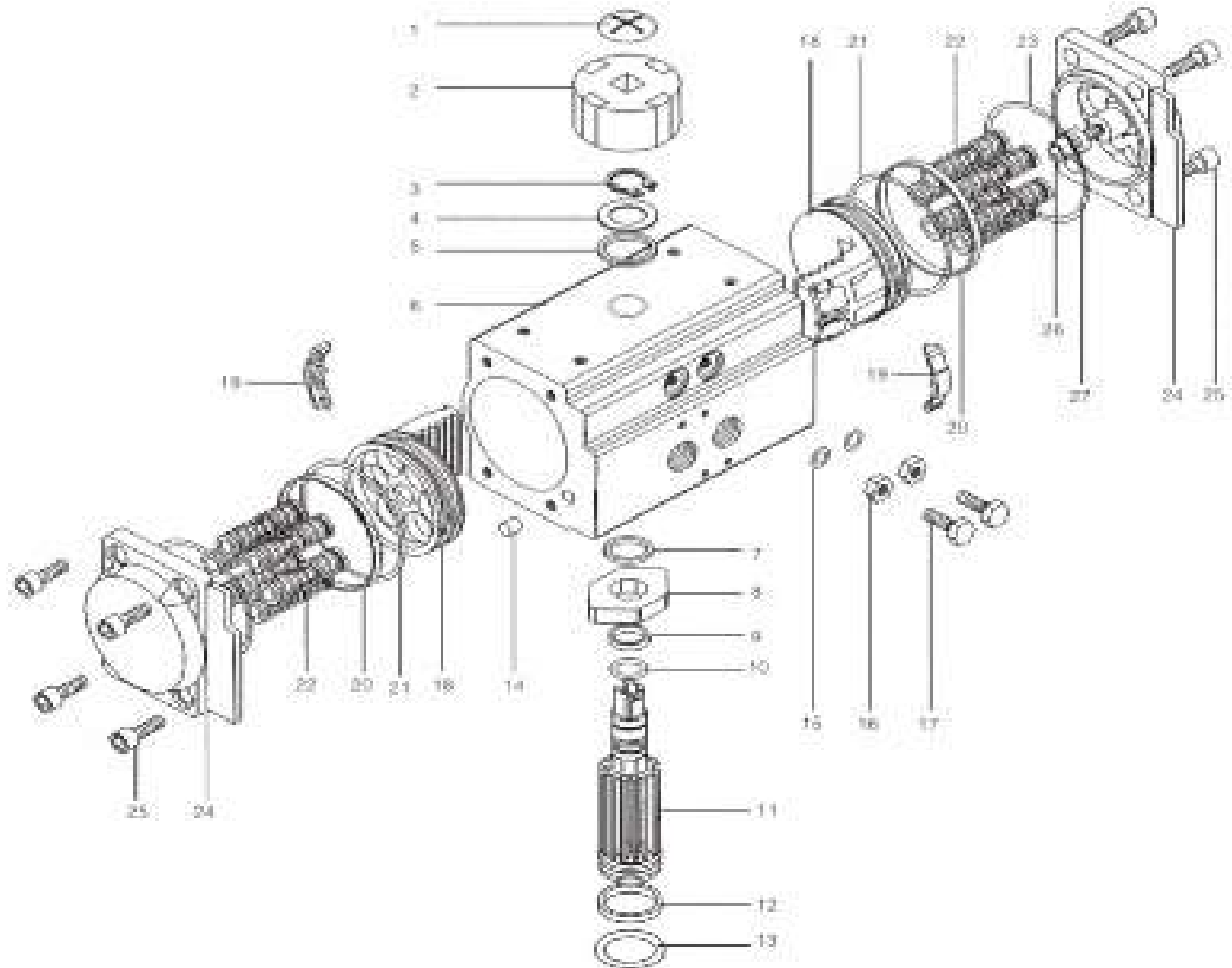
11 springs



12 springs



Lista de Materiales



No	Descripción	Cant	Material	Anticorrosivo	Material Opcional
1	Indicator screw	1	Plastic		
2	Indicator	1	Plastic		
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	O`ring (pinion Top)	1	NBR		
10	Bearing (/pinion Top)	1	Engineering plastics		
11	Pinion	1	Alloy steel	Nickel plating	Stainless steel
12	Bearing (pinion botton)	1	Engineering plastics		
13	O`ring (pinion botton)	1	NBR		Viton/silicone rubber
14	Plug	2	NBR		Viton/silicone rubber
15	Adjusting Screw O`ring	2	Plastic		Viton/silicone rubber
16	Adjusting Screw O`nut	2	Stainless steel		
17	Adjustin bolt	2	Stainless steel		
18	Piston	2	Cast aluminum/steel	Oxidation/zincplating	Stainless
19	Piston guide	2	Engineering plastics		
20	Piston bearing	2	Engineering plastics		
21	Piston O ring	2	NBR		Viton/silicone rubber
22	Spring	0-12	Spring steel	Dipping paint	
23	End cover O ring	2	NBR		Viton/silicone rubber
24	End cover	2	cast aluminum	Powder coating	
25	End cover bolt	2	Stainless steel		
26	Limit bolt	2	Stainless steel		
27	Limit bolt	2	Stainless steel		
28					

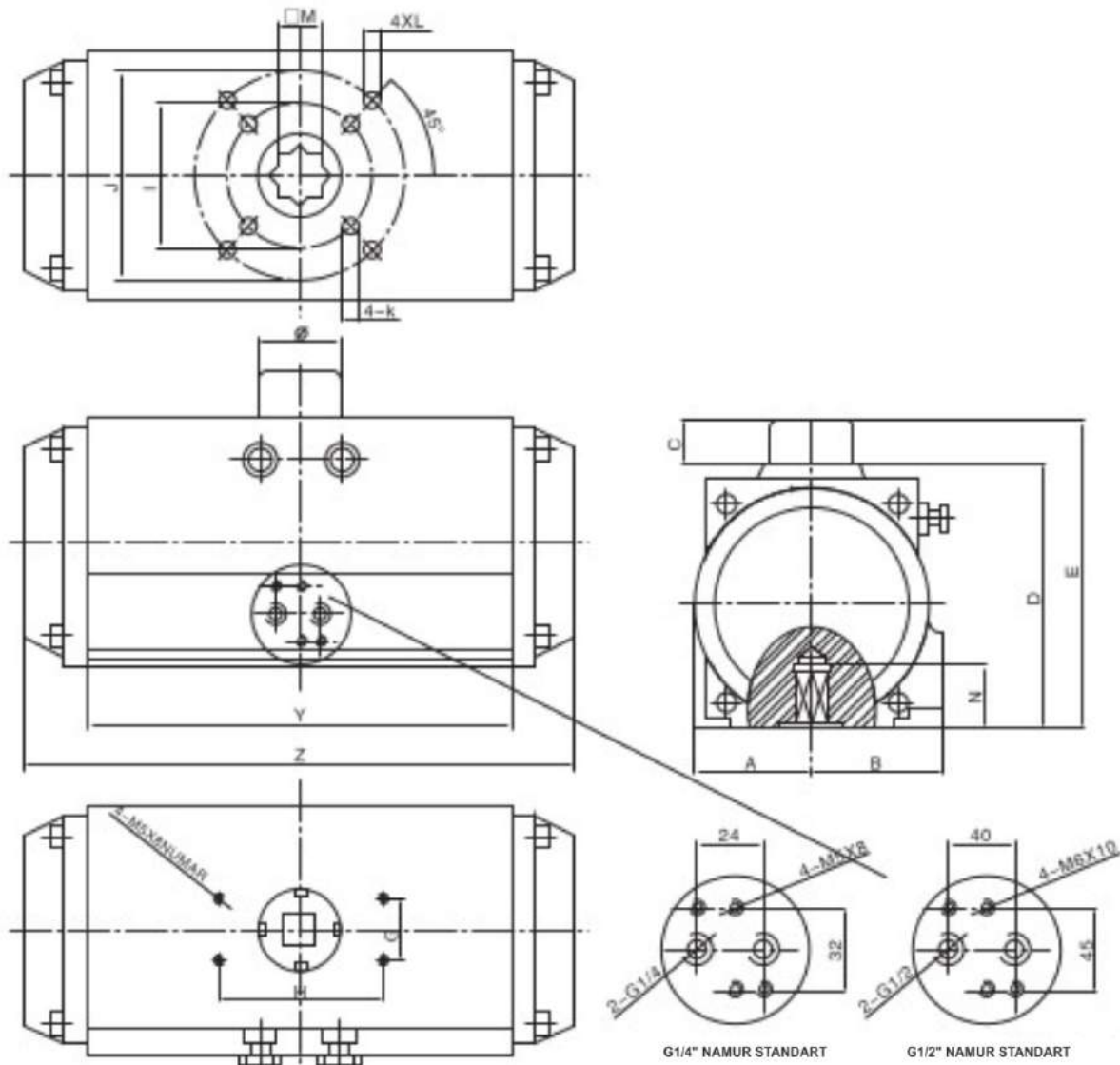
Actuador doble Acción Torque de Salida (Unit N-m)

MODEL	Input air supply pressure (unit.bar)						
	2	3	4	5	6	7	8
APNDA52	8.5	12.7	17	21.2	25.5	29.7	34
APNDA63	15	22.5	30	37.5	44.9	52.4	59.7
APNDA75	21	31.8	42.4	53	63.6	74.2	84.8
APNDA83	32.5	48.7	65	81.2	97.4	113.7	130
APNDA92	46.5	69.8	93	116.3	140	162.9	186
APNDA105	69.3	104	138.5	173.2	207.8	242.5	277
APNDA125	108	162	216	270	324	378	432
APNDA140	184.7	277	369.5	461.8	554	646.5	739
APNDA160	281.5	422	563	704	844	985	1126
APNDA190	453	680	907	1135	1361	1587	1814
APNDA210	554	831	1108	1384	1662	1939	2216
APNDA240	814	1221	1628	2035	2442	2849	3256
APNDA270	1236	1854	2472	3090	3708	4326	4944
APNDA300	1526	2289	3052	3815	4578	4578	5341
APNDA350	2285	3427	4570	5712	6854	7997	9139
APNDA400	3256	4883	6511	8139	9767	11394	13022

Actuador Accionado por Resorte Torque de Salida (Unit N-m)

		Output torque of air to spring													
Air supply pressure		3 bar		4 bar		5 bar		6 bar		7 bar		8 bar		Output torque spring	
No	Spring	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
	Model	Qty	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start
APNSR40	10			4.0	2.0	6.0	4.1	8.1	6.1	10.1	8.1	12.1	10.1	4.0	6.0
	12					5.2	2.9	7.2	4.9	9.3	6.9	11.3	8.9	4.8	7.2
APNSR52	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
	12					11.8	8.3	16.0	12.5	20.3	16.8	24.5	21.0	13.0	9.5
APNSR63	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
	12					21.1	13.5	28.6	21.0	36.1	28.5	43.6	36.0	23.9	16.3
APNSR75	10			29.2	18.5	41.6	30.9	53.9	43.3	66.3	55.7	78.7	68.0	30.9	20.3
	12					37.5	24.7	49.9	37.1	62.2	49.5	74.6	61.8	37.1	24.4
APNSR83	10			35.2	21.9	51.5	38.1	67.7	54.4	83.9	70.6	100.2	86.8	43.0	29.7
	12					45.5	29.5	61.8	45.8	78.0	62.0	94.2	78.2	51.6	35.6
APNSR92	10			49.5	32.5	72.8	55.8	96.0	79.0	119.3	102.3	142.6	125.6	60.6	43.6
	12					64.0	43.7	87.3	66.9	110.6	90.2	133.8	113.5	72.7	52.3
APNSR105	10			59.9	46.2	94.6	80.8	129.2	115.5	163.9	150.1	198.5	184.7	92.3	78.6
	12					78.9	62.4	113.5	97.0	148.1	131.6	182.8	166.3	110.8	94.3
APNSR125	10			139.0	86.0	201.0	147.0	262.0	209.0	323.0	270.0	385.0	331.0	160.0	106.0
	12					179.0	115.0	241.0	177.0	302.0	238.0	363.0	299.0	191.0	127.0
APNSR140	10			191.0	103.0	284.0	195.0	376.0	288.0	469.0	380.0	561.0	472.0	267.0	178.0
	12					248.0	142.0	341.0	234.0	433.0	327.0	525.0	419.0	320.0	214.0
APNSR160	10			291.0	162.0	432.0	303.0	573.0	443.0	713.0	584.0	854.0	725.0	401.0	272.0
	12					377.0	222.0	518.0	363.0	659.0	504.0	800.0	645.0	481.0	326.0
APNSR190	10			443.0	210.0	670.0	437.0	897.0	664.0	1124.0	891.0	1351.0	1117.0	697.0	464.0
	12					577.0	297.0	804.0	524.0	1031.0	751.0	1258.0	978.0	837.0	557.0
APNSR210	10			653.0	313.0	965.0	625.0	1276.0	937.0	1588.0	1248.0	1900.0	1560.0	934.0	594.0
	12					846.0	438.0	1158.0	750.0	1469.0	1062.0	1781.0	1373.0	1121.0	713.0
APNSR240	10			949.0	355.0	1437.0	844.0	1926.0	1333.0	2415.0	1821.0	2903.0	2310.0	1599.0	1005.0
	12					1236.0	524.0	1725.0	1013.0	2213.0	1501.0	2702.0	1990.0	1919.0	1207.0
APNSR270	10			1488.0	682.0	2175.0	1369.0	2862.0	2056.0	3549.0	2743.0	4237.0	3430.0	2066.0	1260.0
	12					1923.0	956.0	2610.0	1643.0	3297.0	2330.0	3985.0	3017.0	2480.0	1512.0
APNSR300	10			1430.0	695.0	2193.0	1458.0	2956.0	2221.0	3719.0	2984.0	4482.0	3747.0	2122.0	1460.0
	12					1868.0	986.0	2631.0	1749.0	3394.0	2512.0	4157.0	3275.0	2546.0	1752.0
APNSR350	10			1963.0	787.0	3105.0	1929.0	4287.0	3071.0	5390.0	4214.0	6532.0	5356.0	3405.0	2346.0
	12					2584.0	1172.0	3726.0	2314.0	4869.0	3457.0	6011.0	4599.0	4086.0	2816.0
APNSR400	10	1967.0	311.0	3595.0	1939.0	4348.0	2195.0	5685.0	3366.0	7312.0	4993.0	8940.0	6621.0	4938.0	3149.0
	12			3012.0	1025.0	3765.0	1281.0	5101.0	2452.0	6728.0	4079.0	8356.0	5707.0	5761.0	3674.0

Dibujo General



Dimensiones de Dibujo

MODEL	A	B	C	D	E	G	H	I	J	K	L	M	N	Z	Y	Ø	Air supply
APN40	23.0	33.5	20.0	60.0	87.0	30.0	50.0	-	F05	-	M6x10	11x11	13.0	124.0	93	Ø34	NAMUR 1/8"
APN52	30.0	41.0	20.0	72.0	92.0	30.0	80.0	F03	F05	M5x8	M6x10	11x11	15.0	145.0	104	Ø34	NAMUR G1/4"
APN63	36.0	46.0	20.0	89.0	109.0	30.0	80.0	F05	F07	M6x10	M8x12	14x14	15.0	169.0	124	Ø34	NAMUR G1/4"
APN75	42.0	52.0	20.0	100.0	120.0	30.0	80.0	F05	F07	M6x10	M8x12	14x14	15.0	201.0	121	Ø34	NAMUR G1/4"
APN83	46.0	55.0	20.0	109.0	129.0	30.0	80.0	F05	F07	M6x10	M8x12	14x14	15.0	209.0	147	Ø34	NAMUR G1/4"
APN92	51.0	57.5	20.0	117.0	137.0	30.0	80.0	F05	F07	M6x10	M8x12	17x17	17.0	242.0	168	Ø41	NAMUR G1/4"
APN105	58.0	64.0	20.0	134.0	154.0	30.0	80.0	F07	F10	M8x12	M10x16	22x22	25.0	275.0	186	Ø41	NAMUR G1/4"
APN125	67.5	70.0	30.0	157.0	187.0	30.0	80.0	F07	F10	M8x12	M10x16	22x22	25.0	332.0	207	Ø41	NAMUR G1/4"
APN140	76.0	77.0	30.0	174.0	204.0	30.0	130.0	F10	F12	M10x16	M12x20	27x27	30.0	404.0	268	Ø41	NAMUR G1/4"
APN160	86.5	87.5	30.0	199.0	229.0	30.0	130.0	F10	F12	M10x16	M12x20	27x27	30.0	470.0	308	Ø41	NAMUR G1/4"
APN190	103.0	103.0	30.0	233.0	270.0	30.0	130.0	F10	F12	M10x16	M12x20	M36xM36	34.0	537.0	390	Ø79	NAMUR 1/4"
APN210	113.0	113.0	30.0	257.0	295.0	30.0	130.0	-	F12	-	M12x20	M36xM36	34.0	540.0	390	Ø79	NAMUR 1/4"
APN240	129.0	129.0	30.0	293.0	332.0	30.0	130.0	-	F16	-	M12x24	M36xM36	34.0	602.0	428	Ø79	NAMUR 1/4"
APN270	146.0	146.0	30.0	333.0	371.0	30.0	130.0	-	F16	-	M12x24	M36xM36	52.0	732.0	510	Ø79	NAMUR 1/4"

Tiempo de Operación & Tabla de Peso

Presión de Aire: 0.5 Mpa

Operación	52.0		63.0		75.0		83.0		92.0		105.0		125.0		140.0		160.0		190.0		210.0		240.0		270.0	
Tiempo	DA	SR	DA	SR	DA	SR	DA	SR	DA	SR	DA	SR	DA	SR	DA	SR	DA	SR	DA	SR	DA	SR	DA	SR	DA	SR
Tiempo abierto (s)	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.8	0.7	0.9	1.0	1.5	1.3	1.4	1.5	1.7	2.0	2.5	2.5	3.5	3.5	4.5	5.0	8.0
Tiempo de Cierre (s)	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.9	0.9	1.2	1.2	1.5	1.8	2.0	2.0	2.5	3.0	3.5	3.5	4.5	4.5	5.0	6.0	7.0
Peso (kg)	1.4	1.6	2.0	2.2	2.7	3.0	3.2	3.7	4.6	5.3	6.8	7.0	9.0	10.2	13.2	16.0	20.0	24.0	32.0	36.0	47.0	55.0	68.0	81.0	97.0	120.0