

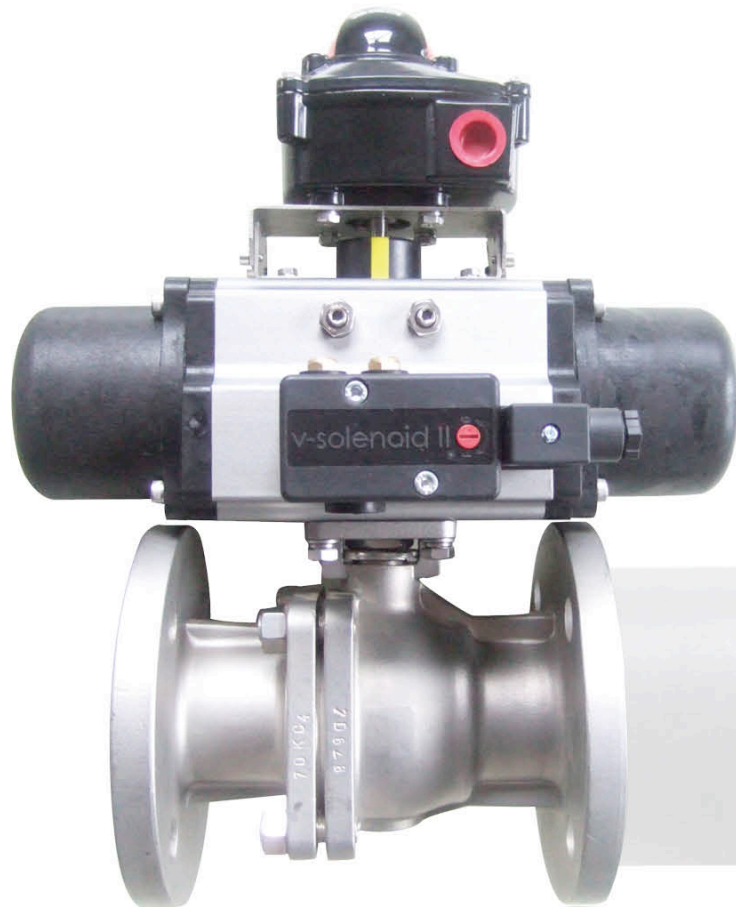
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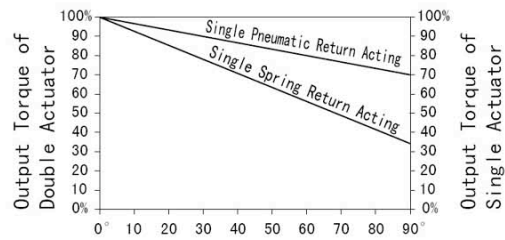
Patented RPR Series

Rack Pneumatic Return Actuator

***Single Acting Design ...
Without an Internal Spring ...***



RPR Series- Rack Pneumatic Return Actuator (Single Acting)



• RPR Series Rack Pneumatic Return Actuator is a patented revolutionary actuator design that provides absolute superiority to replace the traditional spring return actuator. The main features of the RPR Series actuators are :

- a) No springs are used for the return torque.
- b) Reaches 70% of double acting output torque, as compared to 35% for spring return actuator.
- c) More compact and lighter actuator body without compromising the output torque.
- d) Light weight and low air consumption.

Unit: Nm

Model	Air Pressure (bar)													
	3		4		5		5.5		6		7		8	
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
RPR052	12.2	8.3	16.3	11.1	20.4	13.9	22.3	15.2	24.5	16.7	28.5	19.4	32.6	22.2
RPR063	21.5	14.6	28.7	19.5	35.9	24.4	39.4	26.8	43.0	29.3	50.2	34.1	57.4	39.0
RPR075	34.8	23.7	46.1	31.3	57.6	39.2	63.3	43.0	69.1	47.0	80.7	54.9	92.1	62.6
RPR083	43.6	29.6	58.2	39.6	72.7	49.4	80.0	54.4	87.3	59.4	101.8	69.2	116.4	79.2
RPR092	66.8	45.4	89.3	60.7	111.4	75.8	122.5	83.3	133.7	90.9	156.0	106.1	178.3	121.2
RPR105	99.8	67.9	134.0	91.1	166.3	113.1	182.9	124.4	199.6	135.7	232.8	158.3	266.1	180.9
RPR125	171.4	116.6	228.5	155.4	285.7	194.3	314.2	213.7	342.8	233.1	399.9	271.9	457.1	310.8
RPR140	258.0	175.4	343.9	233.9	429.9	292.3	472.9	321.6	515.9	350.8	601.9	409.3	687.9	467.8
RPR160	393.1	267.3	524.1	356.4	655.1	445.5	720.6	490.0	786.2	534.6	917.2	623.7	1048	712.8
RPR190	633.5	411.8	844.7	549.1	1055	685.8	1160	754.0	1266.0	822.9	1478.0	960.7	1689.0	1098.0
RPR210	870.6	592.0	1160	788.8	1450	986	1595	1084	1741.0	1184.0	2031.0	1381.0	2322.0	1579.0

Model	Weight (kg)
RPR052	1.74
RPR063	2.62
RPR075	3.62
RPR083	3.99
RPR092	5.82
RPR105	7.45
RPR125	11.51
RPR140	16.42
RPR160	23.82
RPR190	37.48
RPR210	48.30

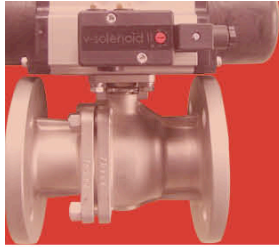


Patent No.

China: ZL 2010 2 0673683.4
ZL 2010 1 0599804.X
PCT CN2011 000873

Taiwan: M 413048
M 455106

Notes: The data is subject to change without notice.



RDA Series Double Acting Actuator



Unit: Kg

Model	Weight	Model	Weight
RDA032	0.54	RDA140	14.6
RDA052	1.36	RDA160	21.1
RDA063	2.12	RDA190	31.8
RDA075	2.93	RDA210	41.8
RDA083	3.42	RDA240	62.0
RDA088	4.40	RDA270	87.6
RDA092	5.10	RDA300	120
RDA105	6.32	RDA350	170
RDA125	10.00	RDA400	230

RDA Series Double Acting Actuator Output Torque

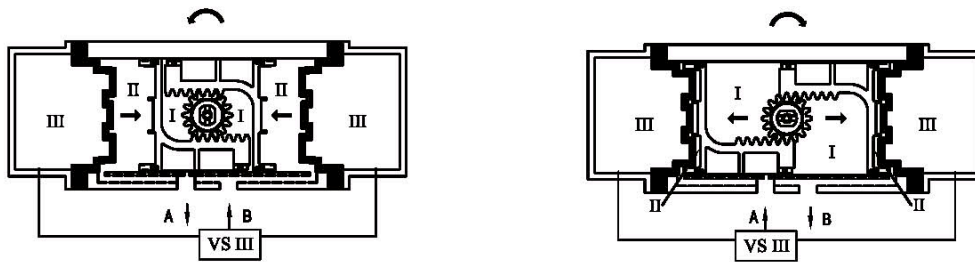
Unit: Nm

Model	Air Pressure (bar)							
	2	3	4	5	5.5	6	7	8
RDA032	2.8	4.2	6.0	7.5	8.2	9.0	10.0	11.5
RDA052	8.3	12.5	16.6	20.8	22.8	24.9	29.1	33.3
RDA063	14.6	21.9	29.3	36.6	40.2	43.9	51.2	58.6
RDA075	23.5	35.5	47.0	58.8	64.6	70.5	82.3	94.0
RDA083	29.7	44.5	59.4	74.2	81.6	89.1	103.9	118.8
RDA088	36.6	54.8	73.1	91.4	100.6	109.9	127.9	145.9
RDA092	45.5	68.2	91.1	113.7	125.0	136.4	159.2	181.9
RDA105	67.9	101.8	136.8	169.7	186.6	203.6	237.6	271.5
RDA125	116.6	174.9	233.2	291.5	320.6	349.8	408.1	466.4
RDA140	175.5	263.2	350.9	438.7	482.5	526.4	614.2	701.9
RDA160	267.4	401.1	534.8	668.5	735.3	802.2	935.9	1069.0
RDA190	430.9	646.4	861.9	1077.0	1184	1292.0	1508.0	1723.0
RDA210	592.2	888.4	1184.0	1480.0	1628	1776.0	2072.0	2369.0
RDA240	928.3	1392.0	1856.0	2320.0	2552	2785.0	3249.0	3713.0
RDA270	1305.0	1958.0	2610.0	3263.0	3589	3916.0	4569.0	5221.0
RDA300	1602.0	2403.0	3205.0	4006.0	4406	4807.0	5608.0	6409.0
RDA350	2399.0	3598.0	4798.0	5998.0	6597	7197.0	8397.0	9596.0
RDA400	3418.0	5127.0	6837.0	8546.0	9400	10255.0	11964.0	13673.0

Notes: The data is subject to change without notice.

HOW IT WORKS (standard action)

Patented Rack Pneumatic Return Actuator



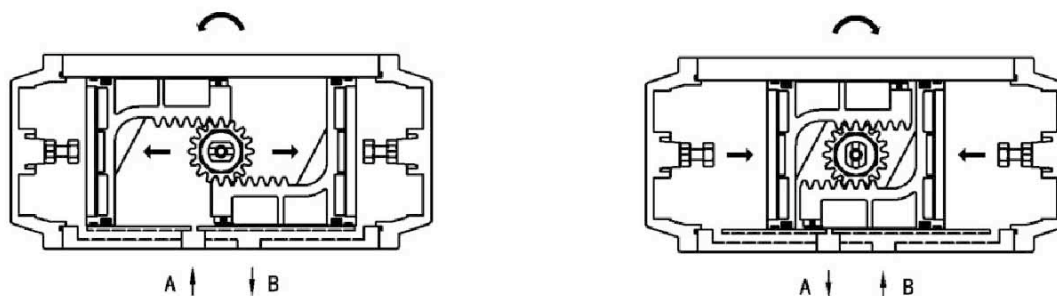
- When the circuit and air are powered on, the compressed air enters the patented solenoid VS III, the air is then channeled into the storage room III through a one-way valve. The air from storage room III reflows into the patented solenoid VS III through the actuator's internal airway. Air enters from Port B into room II, and forces the pistons inwards. The pinion turns counter-clockwise to open the valve while the air is being exhausted through Port A.

- In case of air or power disruption, the air remains in the storage room III due to the one-way valve. The air enters patented solenoid VS III through the actuator internal airway. The air enters from Port A into room I, and forces the pistons outwards. The pinion turns clockwise to close the valve while the air is exhausted through Port B.

Note:

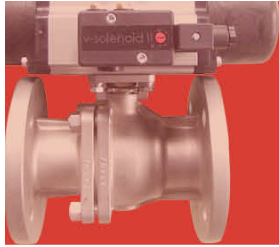
1. The standard rotation is clockwise for closing the valve, and counter clockwise for opening.
2. If the assembly direction of the piston is reversed, the standard rotation is counter clockwise for closing the valve, clockwise for opening.

Double Acting

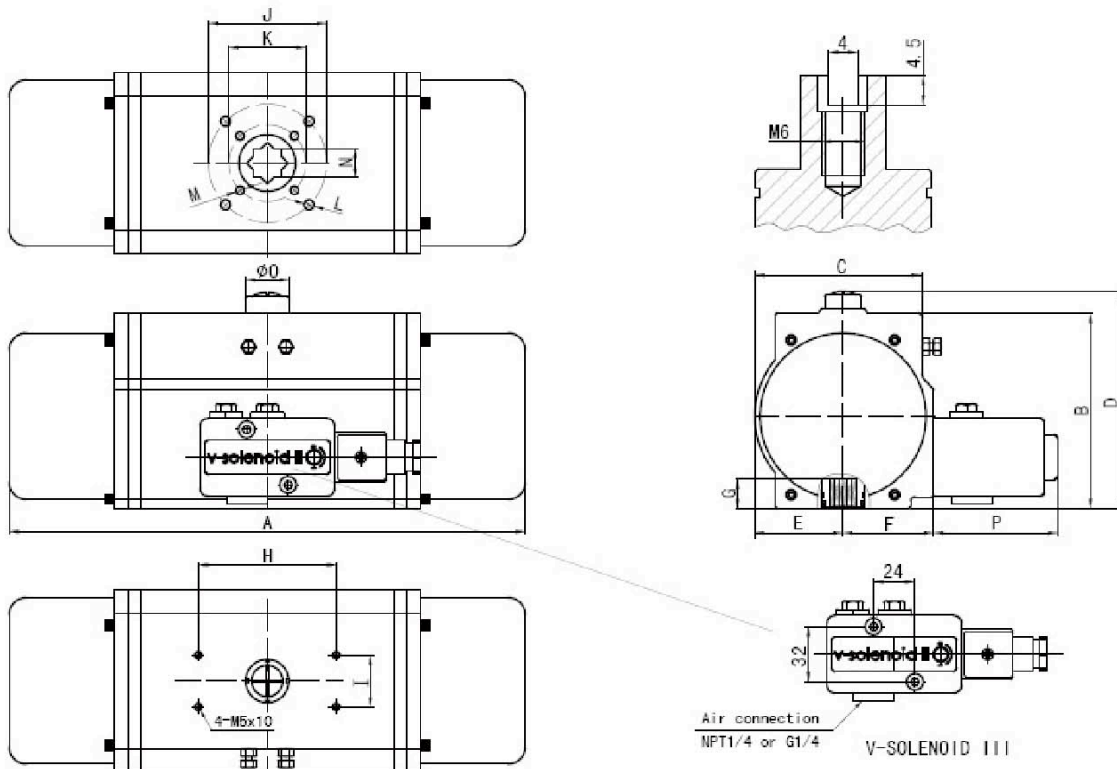


- Air supplied to port A forces the pistons apart and towards the actuator end caps, with the exhaust air exiting through port B. The counter-clockwise rotation is then achieved.

- Air supplied to port B forces the pistons together, with exhaust air exiting through port A. The clockwise rotation is then achieved.



Patented Rack Pneumatic Return Actuator (RPR Series) External Dimension

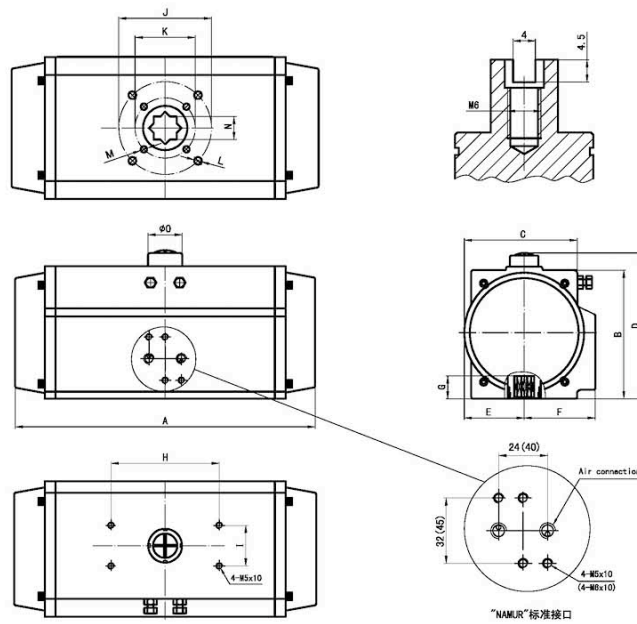


Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Φ0	P
RPR052	272	74	60	94	30	41	14	80	30	F05 Φ50	F03 Φ36	M6x11	M5x10	11	40	72
RPR063	291	88	69	108	36	45	18	80	30	F07 Φ70	F05 Φ50	M8x15	M6x12	14	40	72
RPR075	329	100	79	120	42	52	20	80	30	F07 Φ70	F05 Φ50	M8x13	M6x11	14	40	72
RPR083	330	109	88	129	46	52.5	21	80	30	F07 Φ70	F05 Φ50	M8x15	M6x12	17	40	72
RPR092	394	120	97.5	140	51	57.5	22	80	30	F07 Φ70	F05 Φ50	M8x13	M6x12	17	40	72
RPR105	443	133	105.5	153	57.5	64	24	80	30	F10 Φ102	F07 Φ70	M10x18	M8x14	22	40	72
RPR125	541	155	120.5	175	67.5	70	27.5	80	30	F10 Φ102	F07 Φ70	M10x18	M8x14	22	65	72
RPR140	630	171.5	137	191.5	76	77	32	80	30	F12 Φ125	F10 Φ102	M12x22	M10x18	27	65	72
RPR160	722	197	159.5	217	86.5	87.5	34	80	30	F12 Φ125	F10 Φ102	M12x22	M10x18	27	65	72
RPR190	735	230	186	260	103	103	40	130	30	F14 Φ140		M16x23		36	78	72
RPR210	850	255	202	285	113	113	40	130	30	F14 Φ140		M16x25		36	78	72

Notes: The data is subject to change without notice.

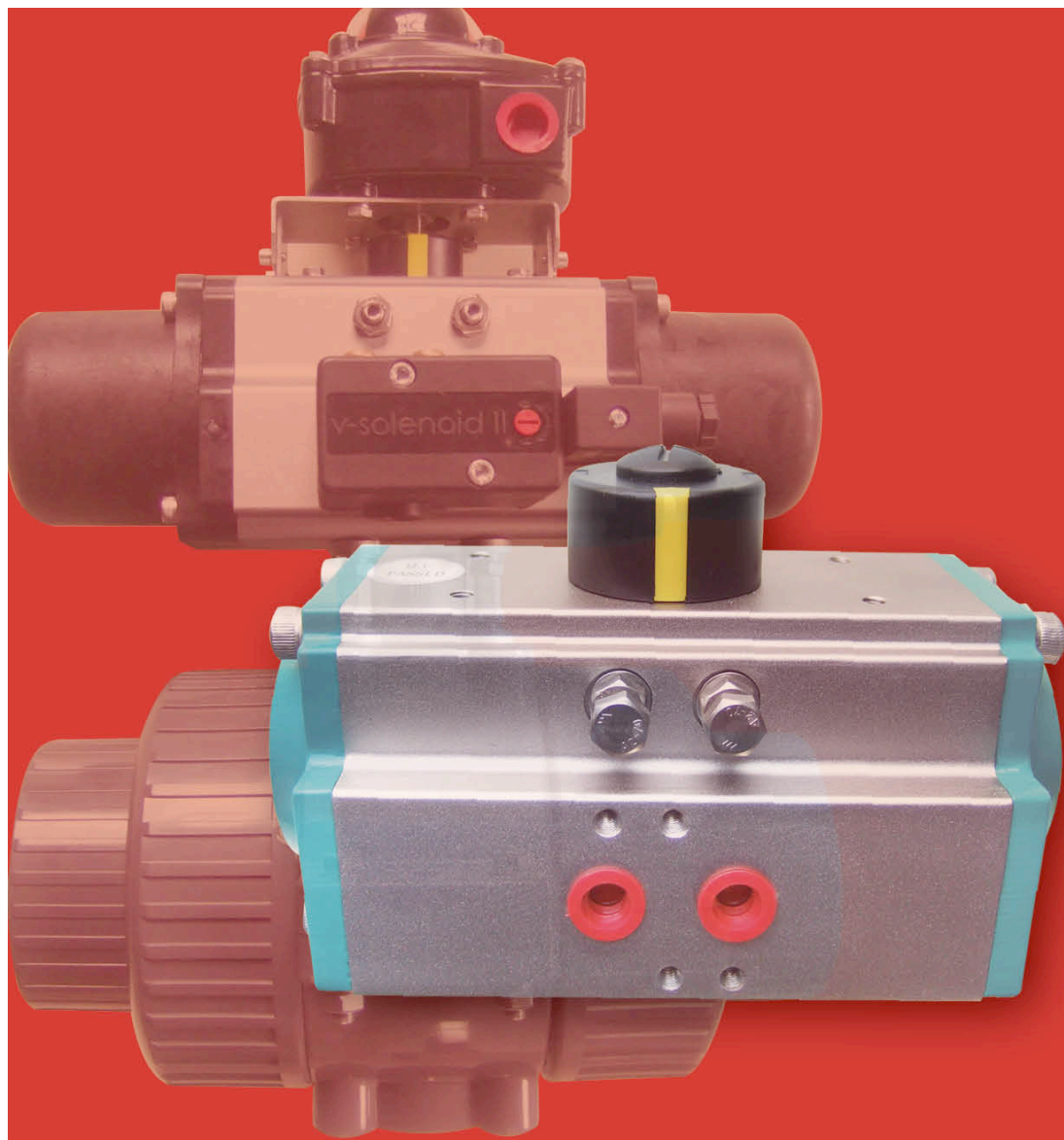
Double Acting Actuator External Dimension



Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Φ0	A120	A180	Air
RDA032	114	45	47	65	23.5	23.5	14	50	25		F03 Φ36		M5x8	9	30			G1/8
RDA052	158.4	74	60	94	30	41	14	80	30	F05 Φ50	F03 Φ36	M6x11	M5x10	11	40	168.9	190	G1/4
RDA063	190	88	69	108	36	45	18	80	30	F07 Φ70	F05 Φ50	M8x15	M6x12	14	40	202.5	228	G1/4
RDA075	207	100	79	120	42	52	20	80	30	F07 Φ70	F05 Φ50	M8x13	M6x11	14	40	221.5	251	G1/4
RDA083	213	109	88	129	46	52.5	21	80	30	F07 Φ70	F05 Φ50	M8x15	M6x12	17	40	227.5	257	G1/4
RDA088	246	116	97.5	140	50	57.5	22	80	30	F07 Φ70	F05 Φ50	M8x12	M6x10	17	40	276	315.5	G1/4
RDA092	259	120	97.5	140	51	57.5	22	80	30	F07 Φ70	F05 Φ50	M8x13	M6x12	17	40	276	315.5	G1/4
RDA105	287	133	105.5	153	57.5	64	24	80	30	F10 Φ102	F07 Φ70	M10x18	M8x14	22	40	308	350	G1/4
RDA125	340	155	120.5	175	67.5	70	27.5	80	30	F10 Φ102	F07 Φ70	M10x18	M8x14	22	65	366.5	418.5	G1/4
RDA140	414	171.5	137	191.5	76	77	32	80	30	F12 Φ125	F10 Φ102	M12x22	M10x18	27	65	445.8	508.5	G1/4
RDA160	476	197	159.5	217	86.5	87.5	34	80	30	F12 Φ125	F10 Φ102	M12x22	M10x18	27	65	512.8	586	G1/4
RDA190	535	230	186	260	103	103	40	130	30	F14 Φ140		M16x23		36	78	577	660.7	G1/4
RDA210	567.5	255	202	285	113	113	40	130	30	F14 Φ140		M16x25		36	78	614.7	709	G1/4
RDA240	668	291.4	233	321.4	129	129	50	130	30	F16 Φ165		M20x28		46	78	725	838	G3/8 (1/4)
RDA270	744	320	264	350	146	146	57	130	30	F16 Φ165		M20x28		46	78	807	932.5	G1/2 (1/4)
RDA300	830	361.97	312.5	391.97	194.5	194.5	57	130	30	F25 Φ254	F16 Φ165	M16x24	M20x28	46	78	893	1019	G1/2
RDA350	920	412.74	353.5	442.74	221.5	221.5	60	130	30	F25 Φ254	F16 Φ165	M16x24	M20x28	55	95	989	1128	G1/2
RDA400	1012	464.91	391	494.91	248	248	60	130	30	F25 Φ254	F16 Φ165	M16x24	M20x28	55	95	1088	1239	G1/2

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