

Features

- Rack and pinion quarter turn (90°) rotation
- Double acting and spring return models
- Prelubricated and tested to minimum 1 million operations
- Direct valve mounting per ISO5211
- Visual valve position indicator
- Extruded aluminum body with 50 micron hard anodizing
- Corrosion resistance - 500 hour minimum salt spray test
- Spring return models use pre-compressed spring cartridges
- Female double square output drive
- Namur mounting pad for direct mount solenoid valves
- Standard VDI/VDE 3845 mounting for top mount accessories

Applications

Valworx air actuators are typically used to operate quarter turn ball valves, butterfly valves and plug valves. They can also be applied virtually anywhere a 90 degree rotation is required such as dampers. Quick and easy to install with standard ISO5211/DIN 3337 mounting dimensions and a double square female output drive. The operating temperature range of the actuator is -4 to 180° F.

Operation

Double acting actuators require air pressure to open and air pressure to close. Spring return actuators require air pressure to open and utilize springs to close for failsafe operation. Typically 4-way pilot valves are used to control a double acting actuator and 3-way pilot valves for spring return models. Pilot air should be filtered, dry or lubricated. Output drive rotates counter-clockwise to open when viewed from top of actuator.

Construction

Body	ASTM 6063 extruded aluminium, 50 micron anodizing
End Covers	ASTM B179 die-cast aluminium, 60-80 micron polyester coating
Drive Shaft	Carbon steel, 20 micron nickel plated
Position Indicator	Glass filled polyamide
Seals	NBR
Springs (spring return model)	Pre-compressed cartridges, 60-80 micron polyester coating
Pistons	ASTM B179 die-casted aluminium alloy 15 micron anodizing
Pilot Air Connection	1/4" NPT plus standard Namur solenoid mounting pad
Fasteners	304 stainless steel



Description

Air actuators in general are known in the industry to be very rugged, reliable and durable. Valworx heavy duty quarter turn air actuators are prelubricated and tested to a minimum one million operations. Actuators are available in double acting and spring return models. They meet international ISO 5211 standards for easy valve mounting and replacement. Position confirmation switches and valve positioners can be easily mounted to the actuator with the standard VDI/VDE-3845 top mounting pad. Rotation adjustment +/- 5% in both open and closed position. Visual position indicator will monitor the open and closed position.

Options

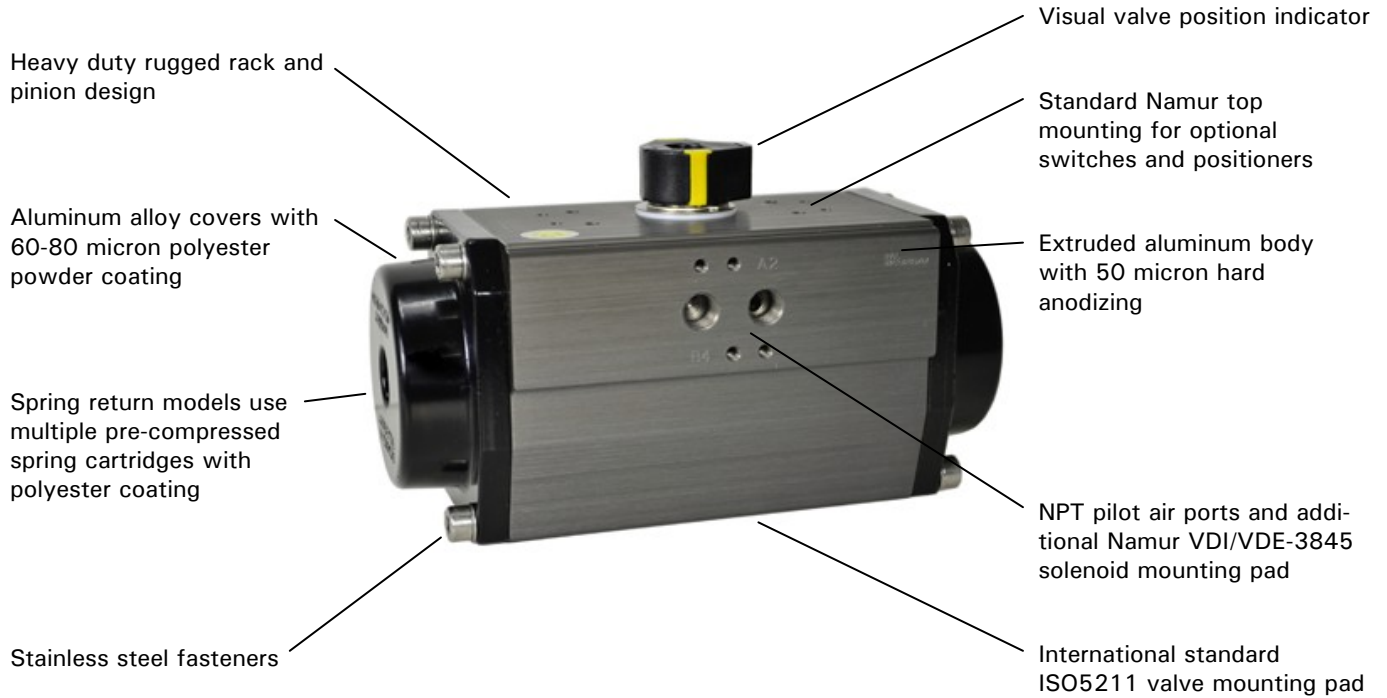
- Direct mount solenoid valves
- Monitor/Position confirmation limit switches
- Electro-Pneumatic positioner 4-20m input
- Pneumatic positioners 3-15 PSI input

Approvals

- CE Declaration of conformity
- ISO5211/ DIN3337 valve mounting
- Namur VDI/VDE 3845 accessory mounting
- ATEX-94-9-CEE standard for explosive environment II 2GD c Tmax = 95°C



Construction Features



Pressure-Temperature

Pilot Pressure: 120 PSI maximum (8 Bar)
 Pilot Media: Filtered, dry or lubricated compressed air
 Temperature Rating: -4 to 180° F (-20 to 82° C)

Typical Applications



Specifications (English Units)

Stock Number	Size	Nominal Torque @ 80 PSI * (inch lbs)	Rotation	Maximum Pressure (PSI)	Cycle Time /90° (seconds)		Ports (NPT)	Air Volume /90° (cubic inches)	Valve Mounting ISO5211	Output Drive (mm)
					Open	Close				
PNEUMATIC ACTUATORS: SPRING RETURN										
530150	SR50	56	90°	120	0.6	0.6	1/8	7	F03/F05	9
530163	SR63	116	90°	120	0.7	0.9	1/4	14	F03/F05	11
530175	SR75	238	90°	120	0.7	1.0	1/4	19	F05/F07	14
530185	SR85	358	90°	120	0.7	1.3	1/4	30	F05/F07	17
530190	SR100	565	90°	120	1.1	1.3	1/4	55	F05/F07/F10	17
530195	SR115	985	90°	120	1.2	1.6	1/4	86	F07/F10	22
530196	SR125	1208	90°	120	1.3	2.3	1/4	113	F07/F10	22
530197	SR145	1757	90°	120	1.4	2	1/4	150	F10/F12	27
PNEUMATIC ACTUATORS: DOUBLE ACTING										
530032	DA32	61	90°	120	0.5	0.5	1/8	2.2	F03	9
530050	DA50	150	90°	120	0.6	0.6	1/8	7	F03/F05	9
530063	DA63	267	90°	120	0.6	0.7	1/4	14	F03/F05	11
530075	DA75	570	90°	120	0.6	0.7	1/4	19	F05/F07	14
530085	DA85	867	90°	120	0.6	0.9	1/4	30	F05/F07	17
530090	DA100	1351	90°	120	0.6	0.9	1/4	55	F05/F07/F10	17
530095	DA115	2229	90°	120	0.9	1.1	1/4	86	F07/F10	22

* Reference torque charts for detailed specifications

Specifications (Metric Units)

Stock Number	Size	Nominal Torque @ 6 Bar * (Nm)	Rotation	Maximum Pressure (Bar)	Cycle Time /90° (seconds)		Ports (NPT)	Air Volume /90° (liters)	Valve Mounting ISO5211	Output Drive (mm)
					Open	Close				
PNEUMATIC ACTUATORS: SPRING RETURN										
530150	SR50	8.9	90°	8	0.6	0.6	1/8	0.12	F03/F05	9
530163	SR63	15.9	90°	8	0.7	0.9	1/4	0.23	F03/F05	11
530175	SR75	32.8	90°	8	0.7	1.0	1/4	0.31	F05/F07	14
530185	SR85	49.3	90°	8	0.7	1.3	1/4	0.49	F05/F07	17
530190	SR100	77.7	90°	8	1.1	1.3	1/4	0.9	F05/F07/F10	17
530195	SR115	134	90°	8	1.2	1.6	1/4	1.4	F07/F10	22
530196	SR125	166	90°	8	1.3	2.3	1/4	1.9	F07/F10	22
530197	SR145	240	90°	8	1.4	2	1/4	2.5	F10/F12	27
PNEUMATIC ACTUATORS: DOUBLE ACTING										
530032	DA32	7.6	90°	8	0.5	0.5	1/8	0.04	F03	9
530050	DA50	18.5	90°	8	0.6	0.6	1/8	0.12	F03/F05	9
530063	DA63	33	90°	8	0.6	0.7	1/4	0.23	F03/F05	11
530075	DA75	70.2	90°	8	0.6	0.7	1/4	0.31	F05/F07	14
530085	DA85	106.9	90°	8	0.6	0.9	1/4	0.49	F05/F07	17
530090	DA100	166.4	90°	8	0.6	0.9	1/4	0.9	F05/F07/F10	17
530095	DA115	274.5	90°	8	0.9	1.1	1/4	1.4	F07/F10	22

* Reference torque charts for detailed specifications

Double Acting Torque Charts

Double Acting (DA) Torque Ratings (inch lbs) English Units

STOCK NUMBER	SIZE	AIR SUPPLY (PSI)							
		36	43	58	72	80	87	100	116
530032	DA32	-	-	44	56	61	67	78	88
530050	DA50	67	81	109	135	150	164	190	218
530063	DA63	122	146	195	243	267	292	341	390
530075	DA75	259	311	414	518	570	622	725	828
530085	DA85	394	473	631	788	867	947	1105	1260
530090	DA100	613	826	982	1228	1351	1474	1720	1963
530095	DA115	1013	1215	1261	2026	2229	2432	2835	3239

Double Acting (DA) Torque Ratings (Nm) Metric Units

STOCK NUMBER	SIZE	AIR SUPPLY (BAR)					
		3	4	5	6	7	8
530032	DA32	-	5.0	6.3	7.6	8.8	10
530050	DA50	9.2	12.3	15.4	18.5	21.5	24.6
530063	DA63	16.5	22	27.5	33	38.5	44
530075	DA75	35.1	46.8	58.5	70.2	81.9	93.6
530085	DA85	53.4	71.2	89	106.9	124.7	142.4
530090	DA100	83.2	110.9	138.6	166.4	194.1	221.8
530095	DA115	137.2	183	228.7	274.5	320.2	366

Double Acting Actuator Weights

	DA Actuator Weights						
Size	32	50	63	75	85	100	115
Lbs.	1.2	2.5	3.6	6.4	9.3	12.8	20.3
Kg.	0.6	1.2	1.6	2.9	4.2	5.8	9.2

Spring Return Torque Charts

Spring Return (SR) Torque Ratings (inch lbs) English Units

STOCK NUMBER	SIZE	AIR SUPPLY (PSI)								SPRINGS TORQUE	
		72		80		87		100			
		0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
530150	SR50	85	51	98	56	112	78	139	105	85	51
530163	SR63	136	92	185	116	234	140	282	189	141	107
530175	SR75	333	186	385	238	436	290	540	391	333	186
530185	SR85	510	279	589	358	668	436	825	594	510	279
530190	SR100	785	443	908	565	1031	688	1277	933	785	443
530195	SR115	1244	782	1447	985	1650	1188	2055	1593	1244	782
530196	SR125	1725	941	1992	1208	2258	1474	2791	2007	1725	941
530197	SR145	2357	1375	2739	1757	3125	2143	3902	2920	2500	1518
0° = closed position, extended springs						90° = open position, compressed springs					

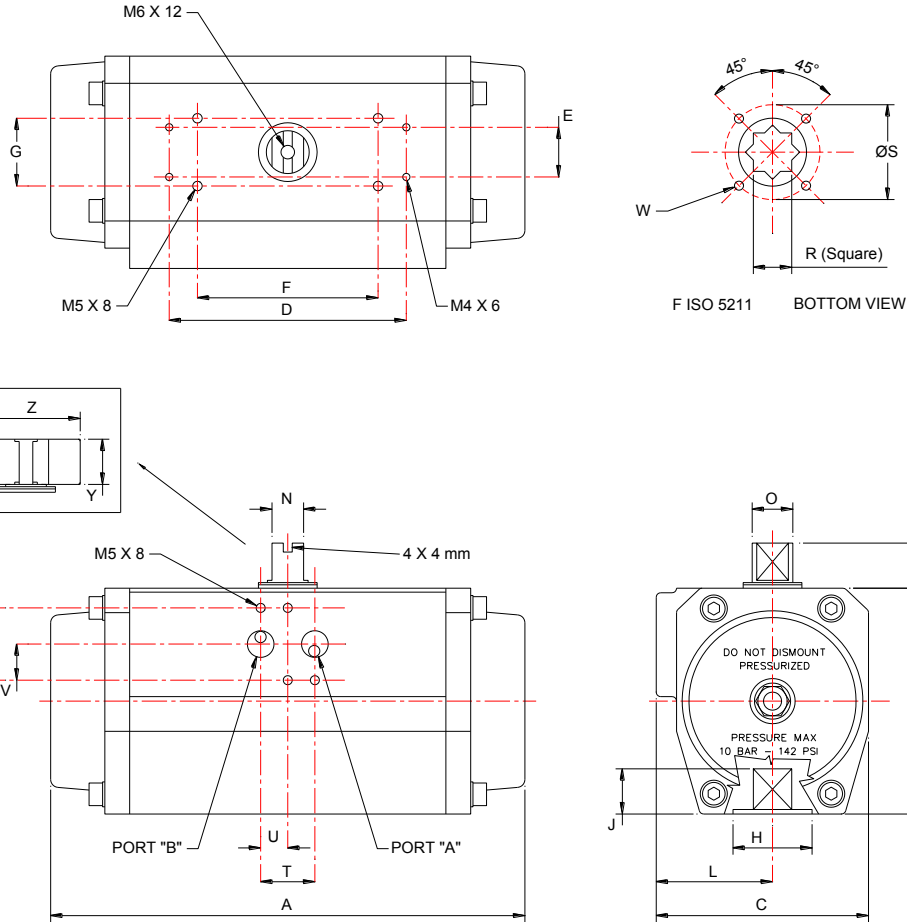
Spring Return (SR) Torque Ratings (Nm) Metric Units

STOCK NUMBER	SIZE	AIR SUPPLY (BAR)								SPRINGS TORQUE	
		5		6		7		8			
		0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
530150	SR50	9.6	5.8	12.7	8.9	15.7	11.9	18.8	15	9.6	5.8
530163	SR63	15.4	10.4	20.9	15.9	26.4	21.4	31.9	26.9	17.1	12.1
530175	SR75	37.6	21.1	49.3	32.8	61.0	44.5	72.7	56.2	37.6	21.1
530185	SR85	57.6	31.5	75.4	49.3	93.2	67.1	111	84.9	57.6	31.5
530190	SR100	88.7	50	116	77.7	144	105	171	133	88.7	50
530195	SR115	140	88	186	134	231	179	277	225	140	88
530196	SR125	194	106	254	166	315	226	375	286	194	106
530197	SR145	264	154	350	240	437	327	524	414	280	170
0° = closed position, extended springs						90° = open position, compressed springs					

Spring Return Actuator Weights

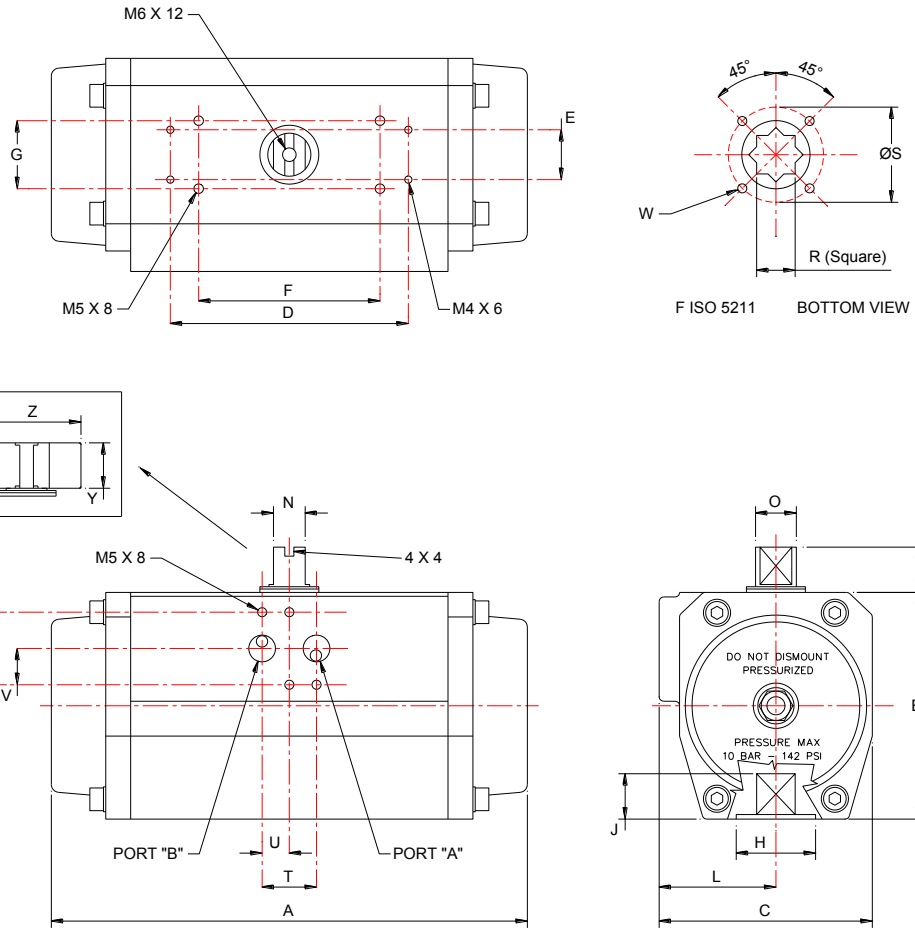
Size	SR Actuator Weights							
	50	63	75	85	100	115	125	145
Lbs.	2.8	4.2	7.3	10.4	14.7	22.3	30.5	41.1
Kg.	1.3	1.9	3.3	4.8	6.7	10.1	13.8	18.7

Dimensions Sizes 50-145 (inches)



Size	A	B	C	D	E	F	G	H	J	L	N	O	P	R	T	U	V	X	Y	Z	Ports (NPT)	F ISO 5211	S	W
50	5.5	2.6	3.0	—	—	3.15	1.18	1.0	0.4	1.63	0.31	0.47	0.79	0.35	0.94	0.47	0.63	1.26	0.8	1.4	1/8	F03 F05	1.42 1.97	M5 X 8 M6 X 9
63	6.1	3.3	3.4	—	—	3.15	1.18	1.2	0.5	1.89	0.31	0.47	0.79	0.43	0.94	0.47	0.63	1.26	0.8	1.4	1/4	F03 F05	1.42 1.97	M5 X 8 M6 X 9
75	8.3	3.9	3.7	4.13	0.87	3.15	1.18	1.4	0.6	2.03	0.55	0.71	0.79	0.55	0.94	0.47	0.63	1.26	0.8	1.7	1/4	F05 F07	1.97 2.76	M6 X 9 M8 X 12
85	9.1	4.3	4.1	4.13	0.87	3.15	1.18	1.6	0.8	2.17	0.55	0.71	0.79	0.67	0.94	0.47	0.63	1.26	0.8	1.7	1/4	F05 F07	1.97 2.76	M6 X 9 M8 X 12
100	11.0	4.9	4.7	4.13	0.87	3.15	1.18	2.2	0.8	2.56	0.55	0.71	0.79	0.67	0.94	0.47	0.63	1.26	0.8	1.7	1/4	F05 F07 F10	1.97 2.76 4.02	M6 X 9 M8 X 12 M10 X 15
115	12.2	5.6	5.3	5.47	0.87	5.12	1.18	2.2	1.0	2.78	1.06	1.42	1.18	0.87	0.94	0.47	0.63	1.26	0.8	2.7	1/4	F07 F10	2.76 4.02	M8 X 12 M10 X 15
125	14.3	6.1	5.6	5.47	0.87	5.12	1.18	2.2	1.0	2.81	1.06	1.42	1.18	0.87	0.94	0.47	0.63	1.26	0.8	2.7	1/4	F07 F10	2.76 4.02	M8 X 12 M10 X 15
145	15.4	6.9	6.4	5.47	0.87	5.12	1.18	2.8	1.2	3.27	1.06	1.42	1.18	1.06	0.94	0.47	0.63	1.26	0.8	2.7	1/4	F10 F12	4.02 4.92	M10 X 15 M12 X 18

Dimensions Sizes 50-145 (mm)



Size	A	B	C	D	E	F	G	H	J	L	N	O	P	R	T	U	V	X	Y	Z	Ports (NPT)	F ISO 5211	S	W
50	139	67	75	-	-	80	30	25	10	41.5	8	12	20	9	24	12	16	32	20	35	1/8	F03 F05	1.42 1.97	M5 X 8 M6 X 9
63	155.5	83	86	-	-	80	30	30	13	48	8	12	20	11	24	12	16	32	20	35	1/4	F03 F05	36 50	M5 X 8 M6 X 9
75	210	100	94	105	22	80	30	35	16	51.5	14	18	20	14	24	12	16	32	20	42	1/4	F05 F07	50 70	M6 X 9 M8 X 12
85	230	110	104	105	22	80	30	40	20	55	14	18	20	17	24	12	16	32	20	42	1/4	F05 F07	50 70	M6 X 9 M8 X 12
100	280	125	120	105	22	80	30	55	20	65	14	18	20	17	24	12	16	32	20	42	1/4	F05 F07 F10	50 70 102	M6 X 9 M8 X 12 M10 X 15
115	310	142	134	139	22	130	30	55	25	70.5	27	36	30	22	24	12	16	32	20	68	1/4	F07 F10	70 102	M8 X 12 M10 X 15
125	362	155	141	139	22	130	30	55	25	71.5	27	36	30	22	24	12	16	32	20	68	1/4	F07 F10	70 102	M8 X 12 M10 X 15
145	390	175	163	139	22	130	30	70	30	83	27	36	30	27	24	12	16	32	20	68	1/4	F10 F12	102 125	M10 X 15 M12 X 18

Dimensions Size 32 (inches (mm))

Size 32	
A	4.61 (117)
B	1.77 (45)
C	1.89 (48)
F	1.97 (50)
G	0.98 (25)
J	0.39 (10)
L	1.00 (25.5)
M	0.89 (22.5)
N	0.31 (8)
O	0.47 (12)
P	0.79 (20)
R	0.35 (9)
T	1.26 (32)
U	0.63 (16)
V	0.47 (12)
X	0.94 (24)
Y	0.79 (20)

Z	1.38 (35)
Ports A & B	1/8 NPT
F ISO 5211	F03
S	1.42 (36)
W	M5 X 8
H	0.98 (25)

