



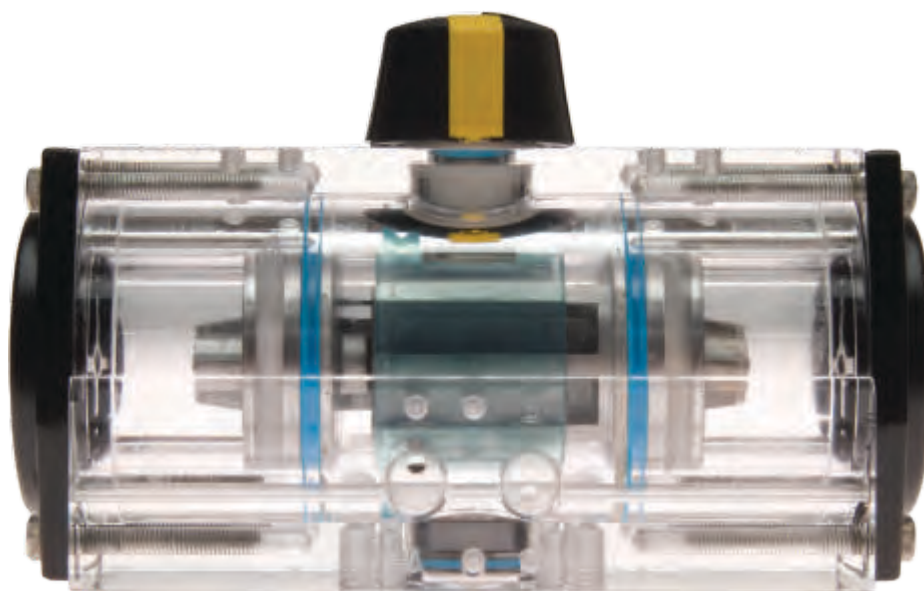
ROTEX
INFINITY ACTUATORS

STANDARD

FEATURES

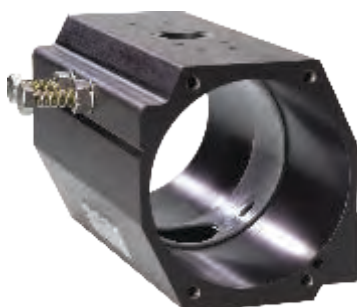
- Self energizing V-Seal piston ring.
- Double rack & pinion.
- High corrosion resistance.
- Pinion supported on polyacetal bearings.
- Maximum working pressure 120 psig. Optional 150 psig.
- No lubrication required.
- Temperature range -20 °F to +230 °F.
- Anodized body inside and out.
- Hard anodized pistons.
- ISO mounting for interchangeability.
- Anti-blowout pinion.
- Can be converted to spring return by just adding springs.
- Smooth burnished cylinder wall.

CONTINUING IT'S TRADITION OF CONSTANT INNOVATION AND ENGINEERING EXCELLENCE, ROTEX BRINGS...



'V' SEAL

- Unique 'V' seal.
- Low friction / Low air consumption.
- Long life, no lubrication needed.
- Low hysteresis / Excellent for control.



HARD ANODIZED BODY

- Di-aluminum Tri-oxide (AL₂O₃) Hard Finish.
- Superior Wear Resistance.
- Hard Finish on Body, Inside and Out.



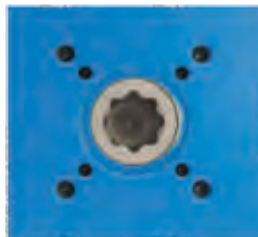
BI-DIRECTIONAL TRAVEL STOPS

- 10% Overtravel Both Directions.
- Strong bolts and seals for travel stops.
- Cast Travel Cam.

SPRING RETURN

FEATURES

- Versatile modular design.
- Ease of handling and greater safety while dismantling.
- Modular spring construction allows combination of springs to generate variety of torques.
- Lifetime guarantee on spring sets.
- Heavy-duty spring construction.
- Eliminates need of special tools and keys.



BEARING CONSTRUCTION

- Solid piston bearings.
- Solid top pinion bearing.
- Polyacetal bearings for smooth operation and long life.
- Internal piston rack guides.

ISO 5211 MOUNTING

- Valve mounting as per ISO 5211 with an additional drilling for one size higher pad.
- Standardization of mounting accessories.
- ISO ring for precise mounting.
- ISO star drive shaft for ease of mounting.

SPRING

- Springs epoxy coated for high corrosion resistance.
- Modular springs sets to suit various valve torque characteristics.
- Life time lubricated.

DOUBLE ACTING TORQUE

TORQUE in - lb

<i>Air pressure</i> MODEL	40 psig	60 psig	80 psig	100 psig	120 psig
ECV 32 DA	32	49	65	82	98
ECV 40 DA	81	121	162	202	243
ECV 50 DA	115	173	231	290	347
ECV 63 DA	238	358	477	597	716
ECV 80 DA	387	581	775	967	1162
ECV 90 DA	590	885	1180	1475	1770
ECV 100 DA	835	1250	1670	2086	2504
ECV 110 DA	1035	1550	2070	2590	3105
ECV 125 DA	1425	2140	2850	3560	4270
ECV 150 DA	2385	3575	4765	5960	7150
ECV 175 DA	3495	5240	6995	8740	10490
ECV 200 DA	5665	8500	11330	14170	17005
ECV 250 DA	9210	13810	18420	23029	27600
ECV 300 DA	13250	19890	26510	33140	39770
ECV 350 DA	19560	29340	39120	48900	58700

TORQUE Nm (10Nm = 1 kgm)

<i>Air pressure</i> MODEL	3 bar	4 bar	5 bar	6 bar	7 bar
ECV 32 DA	4	5	7	8	10
ECV 40 DA	10	13	17	20	23
ECV 50 DA	15	19	25	29	33
ECV 63 DA	29	39	48	59	68
ECV 80 DA	48	64	80	96	112
ECV 90 DA	75	100	125	150	175
ECV 100 DA	102	136	170	204	238
ECV 110 DA	127	169	212	254	297
ECV 125 DA	175	233	292	350	408
ECV 150 DA	293	390	488	586	684
ECV 175 DA	429	573	716	860	1000
ECV 200 DA	696	928	1160	1390	1625
ECV 250 DA	1130	1510	1890	2265	2640
ECV 300 DA	1630	2170	2715	3260	3800
ECV 350 DA	2190	2920	3650	4380	5110

SPRING RETURN TORQUE



TORQUE in-lb

SIZE	SET NO.	SPRING MIN	SPRING MAX	40 psig		60 psig		80 psig		100 psig	
				Air min.	Air max.	Air min.	Air max.	Air min.	Air max.	Air min.	Air max.
ECV 32 SR	6	18	28	4	14	21	31	37	47	54	63
	7	22	34		11	15	27	31	43	48	60
	8	27	41		6	8	22	24	39	40	55
ECV 40 SR	6	45	69	12	35	53	76	93	116	134	157
	7	55	82		26	39	67	79	107	120	148
	8	67	101		14	21	55	61	95	102	136
ECV 50 SR	6	65	97	18	50	76	108	134	166	192	224
	7	78	116		37	57	95	115	153	173	211
	8	95	142		20	31	78	89	136	147	194
ECV 63 SR	6	133	201	38	105	157	224	277	344	396	463
	7	161	242		78	115	197	235	316	354	436
	8	196	295		42	63	162	182	281	301	401
ECV 80 SR	11	147	219	168	240	361	434	555	628	749	822
	16	192	286	101	196	295	389	489	583	682	777
	18	205	306	82	182	275	376	469	570	663	764
	20	230	344	43	157	237	351	430	544	624	738
	24	275	411		112	170	306	364	500	558	693
	26	320	478		67	103	261	297	455	491	648
ECV 90 SR	11	224	334	256	366	550	661	845	956	1140	1250
	16	292	436	153	297	448	592	743	887	1038	1182
	18	312	466	123	278	418	572	713	867	1008	1162
	20	350	522	67	239	362	534	657	829	952	1120
	24	419	625		171	260	466	554	761	849	1055
	26	487	727		102	157	397	452	692	747	987
ECV 100 SR	11	316	472	362	518	779	935	1196	1352	1614	1770
	16	413	617	217	421	634	838	1051	1256	1469	1673
	18	441	659	175	393	592	810	1009	1228	1427	1645
	20	495	738	95	338	513	756	930	1170	1347	1590
	24	592	884		242	368	659	785	1076	1202	1494
	26	689	1029		145	223	562	640	980	1057	1397
ECV 110 SR	11	394	588	448	642	966	1160	1484	1678	2003	2197
	16	513	766	269	523	788	1041	1306	1559	1824	2077
	18	546	818	218	490	736	1008	1254	1526	1772	2044
	20	615	920	116	420	634	939	1150	1450	1670	1975
	24	734	1099		301	455	819	973	1338	1491	1856
	26	854	1278		182	276	700	794	1218	1312	1736
ECV 125 SR	11	541	808	616	883	1329	1596	2041	2308	2754	3020
	16	705	1054	371	719	1083	1432	1795	2144	2508	2857
	18	751	1124	300	674	1013	1386	1725	2098	2437	2811
	20	840	1260	159	578	872	1290	1580	2003	2296	2716
	24	1010	1511		414	626	1127	1338	1839	2051	2552
	26	1174	1757		251	380	963	1092	1675	1805	2388
ECV 150 SR	33	854	1276	1107	1529	2299	2721	3491	3913	4683	5105
	54	1202	1809	575	1182	1767	2374	2959	3566	4151	4758
	57	1237	1879	504	1147	1696	2339	2888	3531	4081	4723
	67	1430	2170	213	950	1405	2145	2590	3330	3790	4530
	79	1813	2723		571	852	1763	2045	2955	3237	4147
	80	1917	2894		467	682	1659	1874	2851	3066	4043
ECV 175 SR	33	1250	1904	1592	2246	3341	3994	5089	5743	6837	7491
	54	1732	2671	825	1764	2574	3513	4322	5261	6070	7009
	57	1762	2749	747	1734	2496	3482	4244	5231	5992	6979
	67	2048	3182	313	1447	2062	3196	3810	4944	5558	6692
	79	2628	4035		868	1209	2616	2958	4365	4706	6113
	80	2756	4262		740	982	2488	2731	4237	4479	5985
ECV 200 SR	33	2170	3211	2458	3498	5292	6333	8126	9167	10961	12001
	54	3113	4584	1084	2555	3919	5389	6753	8224	9588	11058
	57	3183	4730	939	2485	3773	5320	6607	8154	9442	10988
	67	3570	5350	320	2095	3150	4930	5988	7764	8822	10600
	79	4620	6840		1048	1663	3883	4497	6717	7331	9552
	80	4900	7258		769	1244	3603	4079	6437	6913	9272
ECV 250 SR	33	3018	5062	4149	6194	8755	10799	13360	15405	17966	20011
	54	4283	7188	2023	4928	6629	9534	11235	14140	15840	18745
	57	4423	7431	1780	4788	6386	9394	10991	14000	15597	18606
	67	5140	8610	600	4068	5205	8674	9810	13280	14410	17885
	79	6445	10809		2766	3008	7372	7613	11978	12219	16584
	80	6855	11494		2356	2323	6962	6929	11568	11535	16174
ECV 300 SR	33	5101	7480	5777	8156	12406	14786	19036	21415	26665	28044
	54	7315	10695	2565	5943	9192	12572	15821	19201	22450	25830
	57	7683	11197	2061	5575	8690	12204	15319	18833	21948	25462
	67	8780	12834	424	4477	7053	11106	13682	17735	20311	24364
	79	10953	16036	-	-	3850	8933	10479	15562	17109	22191
	80	11705	17112	-	-	2775	8181	9404	14811	16033	21440
ECV 350 SR	33	6801	9973	7703	10875	16542	19714	25381	28553	34220	37392
	54	9753	14260	3417	7924	12256	16762	21095	25601	29933	34440
	57	10244	14929	2748	7433	11586	16272	20425	25111	29264	33949
	67	11707	17112	565	5970	9404	14808	18243	23647	27081	32486
	79	14605	21381	-	-	5134	11911	13973	20749	22812	29588
	80	15607	22816	-	-	3700	10909	12538	19748	21377	28586

60psi Air Supply Standard Stock Actuator
 80psi Air Supply Standard Stock Actuator

Specifications are subject to change without notice

SPRING RETURN TORQUE



TORQUE IN Nm (10 Nm = 1 Kgm)

SIZE	SET NO.	SPRING MIN.	SPRING MAX.	3 bar		4 bar		5 bar		6 bar	
				Air min.	Air max.	Air min.	Air max.	Air min.	Air max.	Air min.	Air max.
ECV 32 SR	6	2	3	0.8	1.9	2.1	3.2	3.5	4.6	4.8	5.9
	7	3	4	0.1	1.5	1.4	2.8	2.8	4.2	4.1	5.5
	8	3	5		0.9	0.6	2.3	1.9	3.6	3.3	5.0
ECV 40 SR	5	5	7	2.5	5.0	5.8	8.4	9.2	11.7	12.5	15.0
	6	5	8	2.0	4.7	5.3	8.0	8.7	11.3	12.0	14.7
	7	6	10		3.6	3.7	7.0	7.1	10.3	10.4	13.6
ECV 50 SR	8	8	12		2.2	1.6	5.6	5.0	8.9	8.3	12.2
	5	7	10	3.8	7.2	8.6	12.0	13.3	16.7	18.1	21.5
	6	8	11	3.0	6.7	7.8	11.5	12.5	16.2	17.3	21.0
ECV 63 SR	7	9	13		5.2	5.6	10.0	10.3	14.7	15.1	19.5
	8	11	16		3.2	2.6	8.0	7.3	12.7	12.1	17.5
	5	15	22	7	15	17	25	27	34	37	44
ECV 80 SR	6	15	23	6	14	16	24	26	34	36	43
	7	19	28		11	11	21	21	30	31	40
	8	23	34		7	5	17	15	26	25	36
ECV 90 SR	11	17	25	22	31	38	47	54	62	70	78
	16	22	33	15	26	30	41	46	57	62	73
	18	24	35	12	24	28	40	44	56	60	72
ECV 100 SR	20	26	39	8	21	23	36	39	52	55	68
	24	32	47		16	16	32	32	48	48	64
	26	37	55		11	8	27	24	42	40	58
ECV 110 SR	11	26	39	34	47	58	71	82	95	106	119
	16	34	50	22	39	46	63	70	87	95	111
	18	36	54	19	36	43	61	67	85	91	109
ECV 125 SR	20	40	60	12	32	36	56	60	80	84	104
	24	48	72		24	25	48	49	72	73	97
	26	56	84		16	13	40	37	65	61	89
ECV 150 SR	11	37	55	48	66	82	100	116	134	151	169
	16	48	71	31	55	65	89	100	123	134	157
	18	51	76	26	52	61	86	95	120	129	154
ECV 175 SR	20	57	85	17	45	51	79	85	113	119	147
	24	68	102		34	35	68	69	103	103	137
	26	80	119		23	18	57	52	91	86	126
ECV 200 SR	11	45	68	60	82	102	124	144	167	187	209
	16	59	88	39	68	81	111	124	153	166	196
	18	63	94	33	64	75	107	118	149	160	192
ECV 250 SR	20	71	106	21	56	63	98	106	141	148	183
	24	85	127		43	43	85	85	127	128	170
	26	99	148		29	22	71	65	114	107	156
ECV 300 SR	11	62	93	82	113	140	171	199	229	257	288
	16	81	122	53	94	112	152	170	210	229	269
	18	87	130	45	88	104	147	162	205	220	264
ECV 350 SR	20	97	146	29	77	87	135	145	194	204	252
	24	117	174		59	59	117	117	175	176	234
	26	136	203		40	31	98	89	156	147	215
ECV 400 SR	33	99	147	146	194	243	292	341	390	439	487
	54	139	209	84	154	182	252	280	350	377	447
	57	143	217	76	150	174	248	271	346	369	443
ECV 450 SR	67	165	250	42	127	140	225	237	323	335	420
	79	209	314		84	76	181	174	279	272	377
	80	221	334		72	57	169	154	267	252	365
ECV 500 SR	33	144	220	210	285	353	429	496	572	640	715
	54	200	308	121	230	265	373	408	516	551	660
	57	203	317	112	226	256	370	399	513	542	656
ECV 600 SR	67	236	367	62	193	205	336	348	479	492	622
	79	303	466		126	107	270	250	413	394	556
	80	318	492		112	81	255	224	398	367	541
ECV 700 SR	33	251	371	326	446	558	678	790	911	1023	1143
	54	359	529	167	337	400	569	632	802	864	1034
	57	367	546	151	329	383	561	615	794	847	1026
ECV 800 SR	67	412	617	79	284	311	516	543	748	775	980
	79	533	790		163	139	396	371	628	604	860
	80	566	838		131	91	363	323	595	555	828
ECV 900 SR	33	348	584	548	784	925	1161	1302	1539	1680	1916
	54	495	830	302	638	680	1015	1057	1392	1434	1770
	57	511	858	274	622	652	999	1029	1376	1406	1754
ECV 1000 SR	67	593	994	137	538	515	915	892	1293	1270	1670
	79	744	1248		388	262	765	639	1143	1016	1520
	80	791	1327		341	182	718	560	1095	937	1473
ECV 1200 SR	33	557	831	798	1073	1341	1616	1885	2159	2428	2702
	54	791	1181	449	839	992	1382	1535	1925	2078	2468
	57	822	1228	402	807	945	1350	1488	1894	2031	2437
ECV 1400 SR	67	948	1416	212	680	755	1223	1298	1766	1841	2309
	79	1189	1776		440	397	984	940	1527	1483	2070
	80	1265	1889		364	283	908	827	1451	1370	1994
ECV 1600 SR	33	785	1152	1021	1387	1745	2112	2470	2836	3194	3560
	54	1126	1646	526	1047	1250	1771	1975	2495	2699	3219
	57	1183	1724	449	990	1173	1714	1897	2438	2622	3163
ECV 1800 SR	67	1352	1976	197	821	921	1545	1645	2269	2370	2994
	79	1686	2469			428	1211	1152	1935	1877	2659
	80	1802	2634			263	1095	987	1819	1711	2543

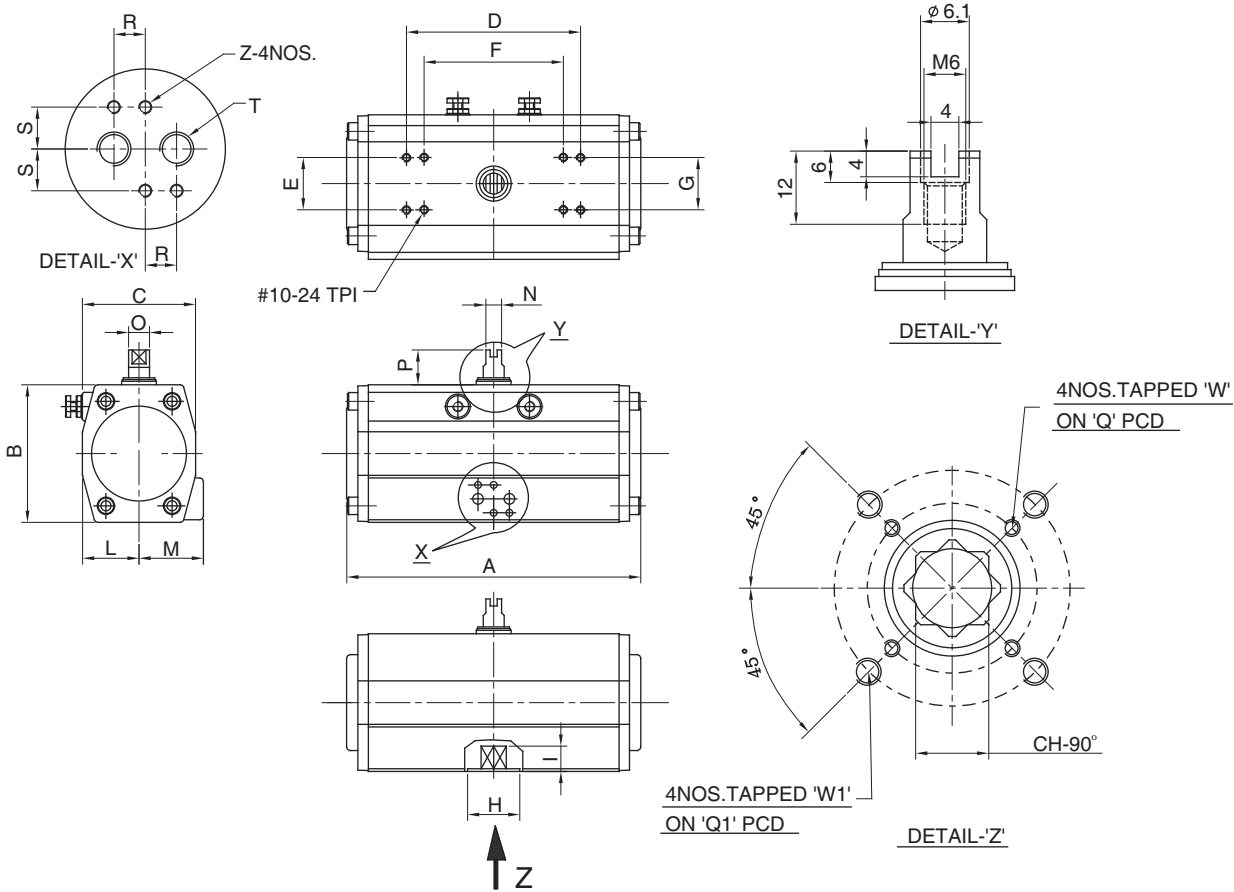
60psi Air Supply Standard Stock Actuator

80psi Air Supply Standard Stock Actuator

Specifications are subject to change without notice

DIMENSIONAL DETAILS

DOUBLE ACTING / SPRING RETURN



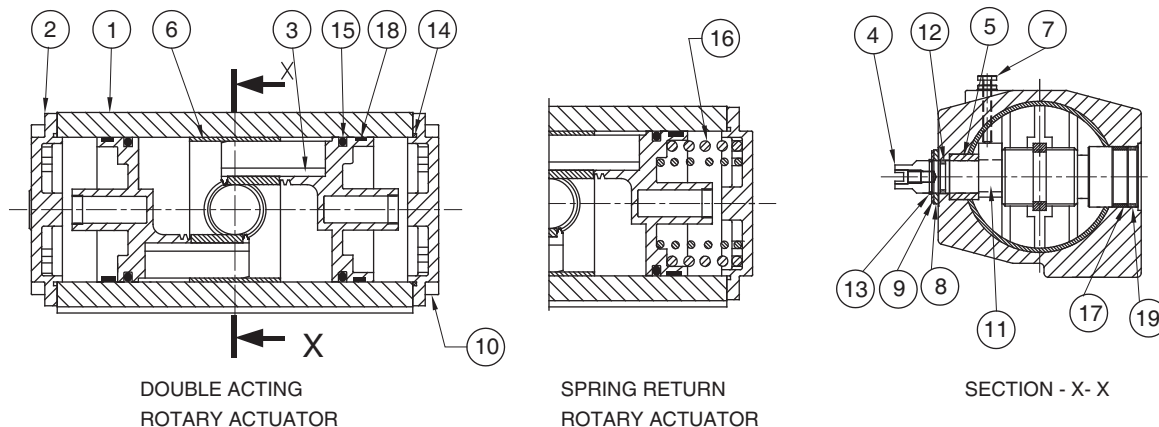
ACTUATOR MODEL	ECV32	ECV40	ECV50	ECV63	ECV80	ECV90	ECV100	ECV110	ECV125	ECV150	ECV175	ECV200	ECV250	ECV300	ECV350
A	5.4	5.56	6.65	7.75	8.25	9.17	10.7	11.6	13.3	14.4	19.5	21.6	27.2	24.7	30.35
B	1.92	3.11	3.11	3.7	4.29	5.51	5.51	5.9	5.9	7.08	7.08	9.64	9.64	14.56	14.56
C	2.2	2.56	2.56	3.15	3.78	4.81	4.81	5.59	5.59	6.85	6.85	10.4	10.4	14.68	14.68
D	--	--	--	--	--	--	--	5.12	5.12	5.12	5.12	5.12	5.12	5.12	5.12
E	--	--	--	--	--	--	--	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
F	1.96	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	--	--	--	--
G	0.99	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	--	--	--	--
H	0.94	1.18	1.18	1.26	1.58	1.58	1.89	1.89	2.37	2.56	3.55	3.55	4.81	3.55	4.81
I	0.43	0.56	0.56	0.67	0.75	0.75	0.99	0.99	0.99	1.14	1.14	1.58	1.89	1.89	2.24
L	1.00	1.28	1.28	1.58	1.89	2.40	2.40	2.80	2.80	3.43	3.43	5.20	5.20	7.34	7.34
M	1.22	1.54	1.54	1.83	2.15	2.52	2.52	2.92	2.92	3.55	3.55	6.18	6.18	8.2	8.2
N	0.31	0.31	0.51	0.59	0.59	0.59	0.99	0.59	0.99	0.99	1.81	2.16	2.16	2.16	2.16
O	0.39	0.39	0.67	0.79	0.79	0.79	1.18	0.79	1.18	1.18	1.97	2.36	2.36	2.36	2.36
P	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	1.18	1.18	1.18	1.18
ISO FLANGE	F03	F03	F03	F05	F05	F05	F07	F07	F07	F10	F10	F10	--	--	--
Q	1.42	1.42	1.42	1.97	1.97	1.97	2.76	2.76	2.76	4.02	4.02	4.02	--	--	--
Q1	--	1.97	1.97	2.76	2.76	2.76	4.02	4.02	4.02	4.92	4.92	5.51	6.5	6.5	6.5
R	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.79	0.79	0.79	0.79	0.79
S	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.89	0.89	0.89	0.89	0.89
T-NPT	1/8	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	3/8	1/2	1/2	1/2	1/2
CH-90°	0.36	0.44	0.44	0.56	0.67	0.67	0.87	0.87	0.87	1.07	1.07	1.42	1.81	1.81	2.16
W (UNC)	10-24	10-24	10-24	1/4-20	1/4-20	1/4-20	5/16-18	5/16-18	5/16-18	3/8-16	3/8-16	3/8-16	--	--	--
W1 (UNC)	--	1/4-20	1/4-20	5/16-18	5/16-18	5/16-18	3/8-16	3/8-16	3/8-16	1/2-13	1/2-13	5/8-11	3/4-10	3/4-10	3/4-10
Z	10-24	10-24	10-24	10-24	10-24	10-24	10-24	10-24	10-24	10-24	1/4-20	1/4-20	1/4-20	1/4-20	1/4-20

* ECV176 has same overall dimensions as ECV175 except has 1/4" Namur solenoid mounting.

* ECV201 has same overall dimensions as ECV200 except has F10/ F12/ 27mm lower mounting.

MATERIAL OF CONSTRUCTION

CROSS SECTION DRAWING



PART LIST

POS.	DESCRIPTION	QTY	MATERIAL	POS.	DESCRIPTION	QTY.	MATERIAL
1	BODY	1	ALUMINUM	11	CAM INSERT	1	STEEL
2	COVER	2	ALUMINUM	12	PINION SEAL	1	POLYETHYLENE
3	PISTON WITH RACK	2	ALUMINUM	13	EXTERNAL CIRCLIP	1	SPRING STEEL
4	PINION	1	STEEL / EN	14	COVER SEAL	2	NBR
5	PINION BEARING	1	POLYACETAL	15	PISTON SEAL	2	POLYETHYLENE
6	PISTON BEARINGS	1	POLYACETAL	16	SPRING	*	SPRING STEEL GR3
7	STROKE ADJ.SCREW	1	HIGH TENSILE STEEL	17	SLIDE RING	1	POLYACETAL
8	WASHER	1	POLYACETAL	18	PISTON BEARING	2	POLYACETAL
9	WASHER	1	SS304	19	PINION SEAL	1	POLYETHYLENE
10	SOC. HEAD CAP SCREW	8	SS304				

* THE NUMBER OF SPRINGS VARY WITH SIZE OF THE ACTUATOR & THE SPRING SET SELECTED.

ORDERING CODE

MODEL		a	b	c	d
DOUBLE ACTING	SPRING RETURN	SPRING SET	DRIVE	ROTATION	PROTECTION
ECV32DA	ECV32SR	From Torque Chart	Square	90 CCW	Epoxy coated
ECV40DA	ECV40SR		Double	90 CW	Electroless Nickel
ECV50DA	ECV50SR			180 CCW	
ECV63DA	ECV63SR			180 CW	
ECV80DA	ECV80SR				
ECV90DA	ECV90SR				
ECV100DA	ECV100SR				
ECV110DA	ECV110SR				
ECV125DA	ECV125SR				
ECV150DA	ECV150SR				
ECV175DA	ECV175SR				
ECV200DA	ECV200SR				
ECV250DA	ECV250SR				
ECV300DA	ECV300SR				
ECV350DA	ECV350SR				

e		f	
PINION MATERIAL	CODE	SEALS	CODE
Steel (EN8)	※	PE	※
SS304	8	EPDM	E
SS316	8M	VITON	AV

d	
PROTECTION	CODE
Epoxy coated	※
Electroless Nickel	EN

※ Default
 CW : Clockwise
 CCW : Counter Clockwise
 * Refer specsheet for details

ORDERING EXAMPLE

ECV 63DA.
 Double acting actuator.
 ECV 63 SR-7.
 Spring return actuator model ECV - 63
 with spring set 7.

ECV 63DA - EN 8.
 Double acting actuator Electroless nickel plated body

TECHNICAL INFORMATION

AIR SUPPLY REQUIREMENT

AIR SUPPLY REQUIREMENT @ 14.7 PSIA, 68°F FOR 90° STROKE		
MODEL	PISTON INWARD STROKE inch ³	PISTON OUTWARD STROKE inch ³
ECV 32	7.3	5.5
ECV 40	9.2	6.7
ECV 50	15.9	11.0
ECV 63	22.7	17.1
ECV 80	47.8	25.1
ECV 90	69.9	42.3
ECV 100	83.3	56.4
ECV 110	114.6	72.3
ECV 125	137.3	103.5
ECV 150	243.3	168.5
ECV 175	334.0	288.1
ECV 200	720.8	416.8
ECV 250	842.8	625.2
ECV 300	1930.0	999.0
ECV 350	2268.0	1575.0

WEIGHT

MODEL	WEIGHT in lbs	
	DOUBLE ACTING	SPRING RETURN
ECV 32	2	3
ECV 40	3	4
ECV 50	4	5
ECV 63	6	7
ECV 80	8	9
ECV 90	11	15
ECV 100	16	20
ECV 110	19	24
ECV 125	22	26
ECV 150	26	35
ECV 175	35	46
ECV 200	61	84
ECV 250	105	143
ECV 300	130	198
ECV 350	156	242

For Double Acting the total Air requirement is sum of inward & outward stroke. For Spring Return air requirement, use outward stroke only.

SPRING SET CODE

Indicates the quantity of springs needed in an actuator.

FOR ECV32 - ECV63

SPRING SET	INNER SPRING	OUTER SPRING
5	0	2
6	2	1
7	1	2
8	2	2

FOR ECV80 - ECV125

SPRING SET	INNER SPRING	MIDDLE SPRING	OUTER SPRING
11	2	0	1
16	2	1	1
18	1	2	1
20	2	0	2
24	2	1	2
26	2	2	2

FOR ECV150 - ECV350

SPRING SET	INNER SPRING	MIDDLE SPRING	MID· OUTER SPRING	OUTER SPRING
33	0	1	1	1
54	1	1	2	1
57	2	2	1	1
67	2	2	0	2
79	1	2	2	2
80	2	2	2	2

ROTARY ACTUATOR CORROSION PROTECTION

Epoxy Coated Body

Special Aluminum alloy (6351T6) used as a base metal.

Hard anodizing of Aluminum results in better corrosion protection, surface hardness and superior wear resistance.

50µm thickness of controlled oxidized surface of the Aluminum alloy comprised primarily of Aluminum Trioxide (Al_2O_3) crystals along with Magnesium and Tungsten oxides, make the surface chemically inert and extremely hard (in excess of 45° Rc).

The treated layer can not be peeled off, providing an extremely stable surface treatment. Surface withstands most environments including saline environment.

Two part system deposited on the prepared (Hard anodized) aluminum body by spray technique, produces a 30µ- 40µ thick layer (only external surfaces). Epoxy coating helps in protecting the actuator from extremely corrosive environments. Standard finish for acidic or Alkaline environment. Also suitable for environments such as ammonia, ammonia liquor etc. Rotex guarantees 200 hrs. of service salt spray test.



Electroless Nickel Plated Pinion

All pinions are electroless nickel plated as a standard surface treatment given to the pinion shaft. Excellent for most applications including corrosive environments. The material of pinion is EN8 steel. The coating is 8µ minimum.



Epoxy Coated Springs

Rotex offers high grade steel springs, epoxy coated. Rotex springs are large diameter, nested one inside the other. We offer a wide selection of interchangeable spring ranges. Rotex springs can be matched to any air supply or valve application.



ROTARY ACTUATOR STANDARD FEATURES AND OPTIONS

V-Seal Features

Self Energized:

The exclusive double lip seal design of the Rotex V-Seal provides for dynamic sealing at pressures of up to 150 psig and temperatures up to 230° F. Lower friction and less hysteresis make the Infinity actuator great for control applications.

Wear Compensating:

The V-Seal's wear compensation feature eliminates the "set" taken by traditional o-rings.

Long Life:

Rotex V-Seal actuators are guaranteed for 3 years or 3 million cycles. The V-Seals cover a greater temperature range and have better chemical resistance than traditional o-rings.

Rotex V-Seals can have a small allowable air consumption, based on application.



Cylinder Burnishing

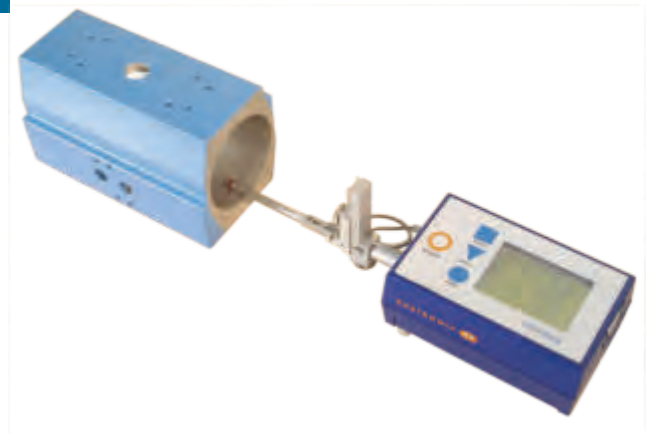
The Rotex Infinity cylinders are burnished with carbide roller tooling on the CNC machine. This ensures an extremely long life of the piston seal.

Bore Finish:

Ra = Minimum 0.4μ

Rp = Maximum 1.0μ

Rotex roller burnishes the actuator cylinders to ensure a hard, smooth surface finish. Burnishing is a cold rolling process that allows Rotex to improve surface finish without removing metal : any peaks on the inside bore are compressed to a smooth mirror finish.



Electroless Nickel Treatment: 'EN'

Nickel is deposited on the anodized surfaces via a nickel bath immersion process, (not to be confused with electroplating process). This immersion process creates a chemical reaction between the hard anodized aluminum and the nickel, sealing the actuator from chemical attack. Now the actuator has a hard uniform sealed surface which makes it suitable for chemical wash down areas, or environments where painting and powder coating are not effective. Ammonia, Potassium, Sodium, and Hydrochloric applications are all well suited for the ROTEX EN nickel actuator.



The Rotex V-Seal, superior bearing support, with the added benefits of a nickel immersion process, all add up to a very long lasting and cost effective product. ROTEX 3X Infinity!

Infinity3x



ROTEX
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