

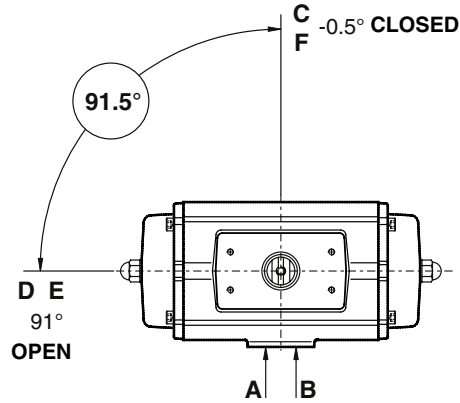
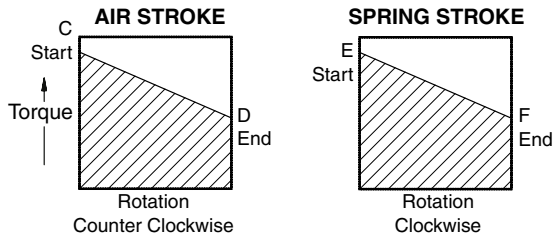
Data sheet

Sheet No.: A1.104.02 Rev. B
Date: January 2010

SPRING RETURN ACTUATOR TORQUE (In.lb.)

90°

SINGLE ACTING TORQUE



Note

- Emerson Process Management recommends that the valve manufacturer supply the maximum required torque values (Including any adjustments or suggested safety factors for valve service conditions or application). Additionally, the valve manufacturer must identify at which position(s) and direction(s) of rotation (Counter Clock Wise or Clock Wise) these maximum requirements occur.
- If in doubt, or you require any assistance with sizing actuators, do not hesitate to contact your nearest Emerson's Valve Automation Division representative.
- Pressure on port "A" opens the actuator*
- The actuator is shown in closed position* (* code A, data sheet A1.504)

Actuator Type	Springset nr.	Air Stroke (lb/in)										Spring Stroke (lb/in)	
		SUPPLY PRESSURE (in PSI)											
		40		60		80		100		120		E	F
PS 2500	6	6881	4278	12875	10273	18869	16267	24863	22261	30858	28255	7013	4401
	8	5251	1781	11245	7775	17239	13769	23233	19764	29228	25758	9351	5868
	10	-	-	9615	5278	15609	11272	21603	17266	27597	23260	11689	7335
	12	-	-	7985	2780	13979	8774	19973	14768	25967	20763	14026	8803
	14	-	-	-	-	12349	6277	18343	12271	24337	18265	16364	10270
PS 4000	6	11701	7310	21862	17472	32024	27633	42185	37795	52347	47956	11835	7429
	8	8949	3096	19111	13257	29272	23419	39434	33580	49595	43742	15780	9905
	10	-	-	16359	9042	26521	19204	36682	29365	46844	39527	19725	12381
	12	-	-	13608	4828	23770	14989	33931	25150	44093	35312	23670	14857
	14	-	-	-	-	21018	10774	31180	20936	41341	31097	27615	17333

Actuator Type	Springset nr.	Air Stroke (lb/in)										Spring Stroke (lb/in)	
		SUPPLY PRESSURE (in PSI)											
		40		60		80		100		120		E	F
ES 12	2	-	-	48	24	80	55	111	87	143	119	63	40
	3	71	44	130	103	189	162	248	221	306	280	62	39
ES 25	2	48	8	107	67	166	126	225	185	284	244	94	59
	3	-	-	85	31	144	90	203	149	262	208	125	78
	4	-	-	-	-	121	54	180	113	239	172	156	98
	5	-	-	-	-	99	18	158	77	217	136	188	117
ES 40	2	133	82	243	193	354	303	464	414	575	524	117	73
	3	91	15	201	125	312	236	422	346	533	457	176	110
	4	-	-	159	58	270	169	380	279	491	390	234	146
	5	-	-	-	-	228	101	338	212	449	322	293	183
	6	-	-	-	-	185	34	296	144	406	255	351	220
	ES 65	2	196	117	365	285	533	454	701	622	870	790	186
3		129	10	297	178	466	347	634	515	802	683	279	176
4		-	-	230	71	398	240	567	408	735	576	372	234
5		-	-	-	-	331	133	500	301	668	470	465	292
6		-	-	-	-	264	26	432	194	601	363	558	351
ES 100		2	303	192	552	441	801	690	1050	939	1299	1188	258
	3	211	44	460	293	709	542	958	791	1206	1039	387	242
	4	-	-	367	144	616	393	865	642	1114	891	516	323
	5	-	-	-	-	523	245	772	494	1021	743	646	403
	6	-	-	-	-	430	96	679	345	928	594	775	484
	ES 150	2	485	297	884	696	1283	1094	1681	1493	2080	1892	423
3		337	54	735	453	1134	852	1533	1250	1931	1649	634	388
4		-	-	587	210	985	609	1384	1007	1783	1406	845	517
5		-	-	-	-	837	366	1235	764	1634	1163	1056	647
6		-	-	-	-	688	123	1087	522	1485	920	1268	776
ES 200		2	656	406	1202	952	1747	1498	2293	2043	2838	2589	579
	3	448	74	994	619	1539	1165	2085	1710	2631	2256	868	542
	4	-	-	786	287	1332	832	1877	1378	2423	1924	1158	723
	5	-	-	-	-	1124	500	1669	1045	2215	1591	1447	904
	6	-	-	-	-	916	167	1462	713	2007	1258	1736	1085
	ES 350	2	1105	684	2053	1632	3001	2580	3949	3528	4897	4476	1025
3		727	95	1675	1043	2623	1991	3571	2939	4519	3887	1537	987
4		-	-	1297	455	2245	1403	3193	2351	4141	3299	2049	1317
5		-	-	-	-	1866	814	2814	1762	3762	2710	2561	1646
6		-	-	-	-	1488	225	2436	1173	3384	2121	3074	1975
ES 600		2	1920	1183	3531	2794	5142	4405	6753	6016	8364	7628	1723
	3	1298	193	2909	1804	4520	3415	6131	5026	7742	6637	2585	1624
	4	-	-	2287	814	3898	2425	5509	4036	7120	5647	3446	2165
	5	-	-	-	-	3276	1434	4887	3046	6498	4657	4308	2706
	6	-	-	-	-	2654	444	4265	2055	5876	3666	5169	3247
	ES 950	2	2898	1777	5303	4182	7708	6587	10113	8992	12518	11397	2563
3		1986	304	4391	2709	6796	5114	9201	7519	11606	9924	3844	2381
4		-	-	3479	1236	5884	3641	8288	6046	10693	8451	5125	3175
5		-	-	-	-	4971	2168	7376	4573	9781	6978	6407	3968
6		-	-	-	-	4059	695	6464	3100	8869	5505	7688	4762
ES 1600		2	4765	2988	8741	6964	12716	10939	16692	14915	20668	18890	4193
	3	3244	578	7220	4554	11196	8530	15171	12505	19147	16481	6289	3970
	4	-	-	5699	2145	9675	6120	13650	10096	17626	14071	8385	5293
	5	-	-	-	-	8154	3711	12129	7686	16105	11662	10481	6616
	6	-	-	-	-	6633	1301	10608	5277	14584	9252	12578	7939



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Updated data sheets can be obtained from our website www.El-O-Matic.com or from your nearest Valve Automation Center **USA:** +1 813 319 0266 **Europe:** +31 74 256 10 10 **Asia-Pacific:** +65 6501 4600



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