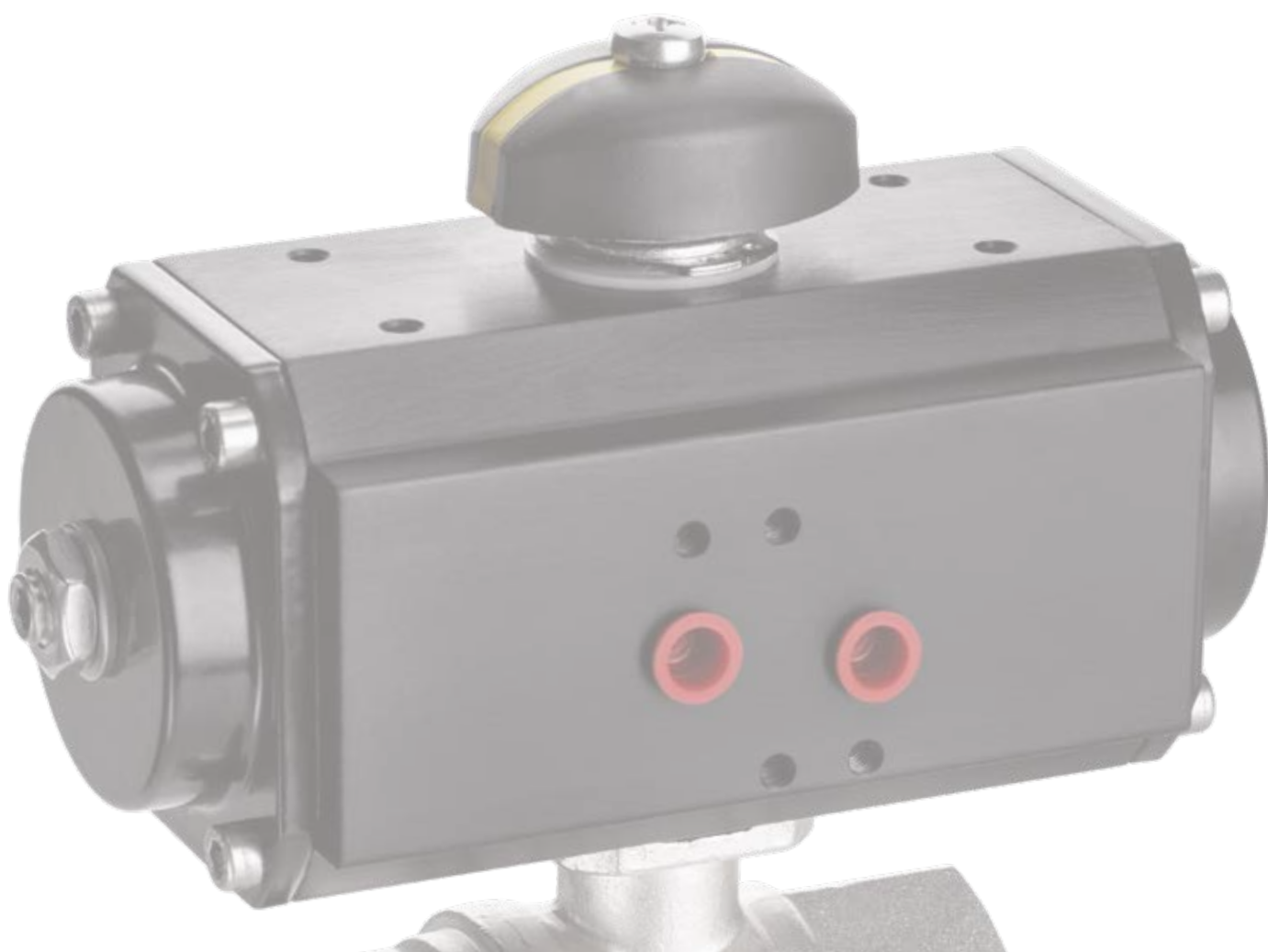




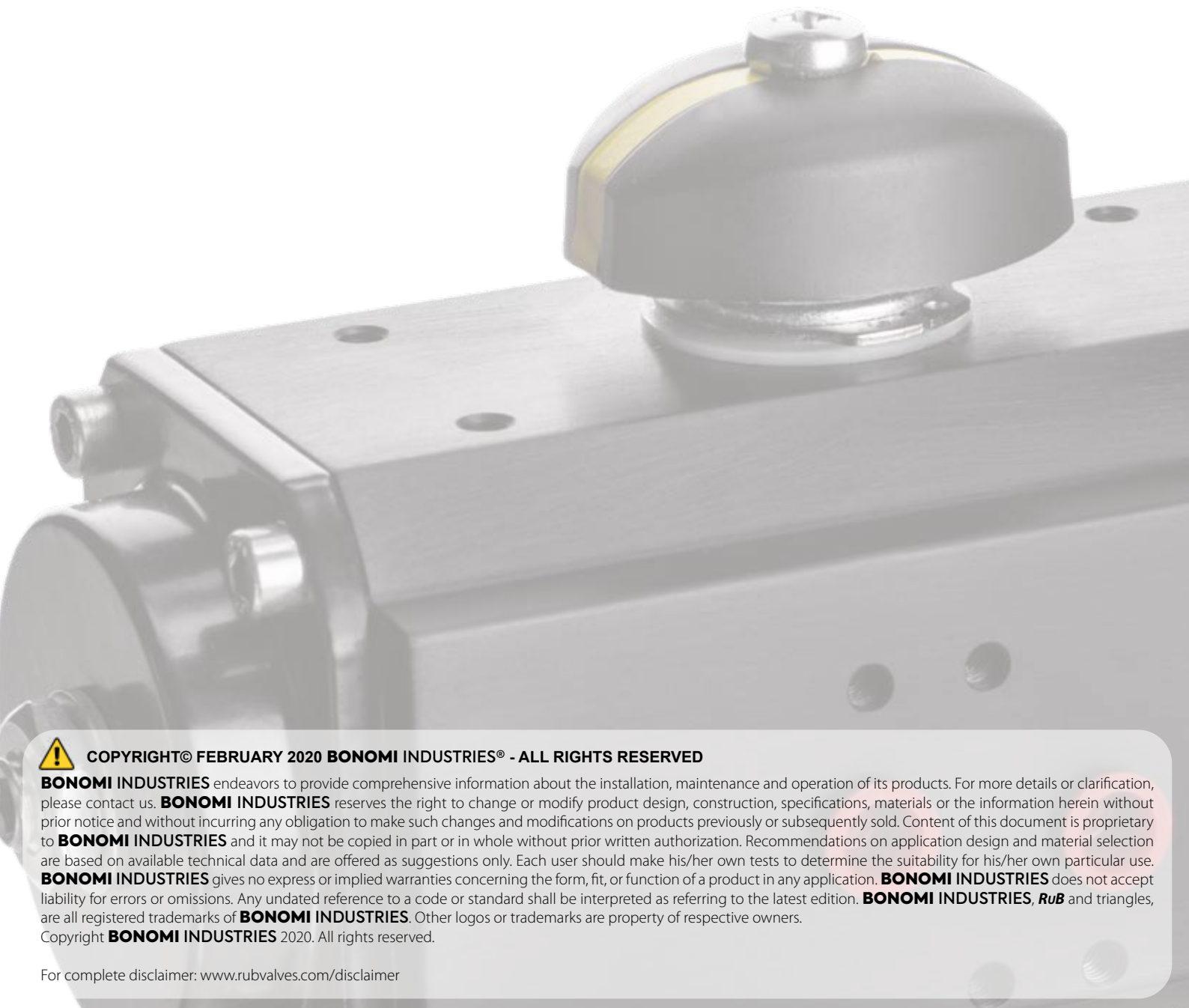
EVA

PNEUMATIC ACTUATOR



BONOMI INDUSTRIES SRL





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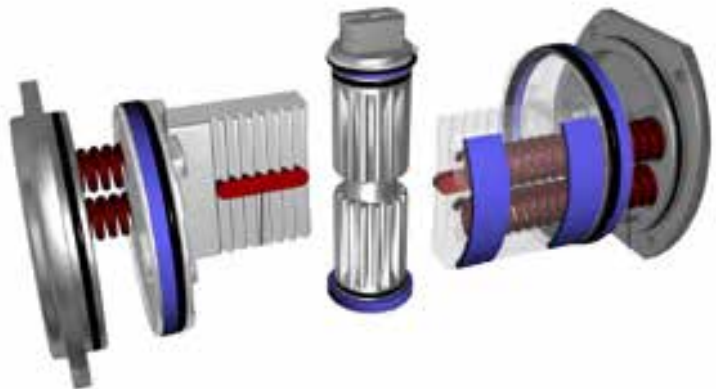
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The **EA actuators** series is designed for quarter turn applications on **RuB** ball valves in a compact and lightweight form.

They can be supplied single (spring return) or double acting with a wide range of output torques offering a **complete valve automation solution**.

EA actuator has a patented guide bar which keeps the rack and pinion gear teeth in perfect engagement in all directions of operations. The contact between the teeth is pure rolling contact – no rubbing or friction which means minimum wear and long cycle life.



Superior appearance and better corrosion resistance.

It has a dense jet black anodized finish which makes the EA line suitable for indoor and outdoor applications.

ISO 5211 direct mount on valve:

Direct fitting on any valve which follows ISO standard (like our S.64 2-way or S.76 3-way brass ball valves and our S.134 stainless steel ball valves). No brackets or couplings are required for mounting. Accept any microswitch, positioner, or solenoid valve which complies with NAMUR.





for 1/2" - 4" quarter turn valve

Technical features

- ISO 5211 direct mount on valve
- NAMUR pads for direct mount of solenoid and limit switch
- Pilot ring for perfect alignment of shaft and stem
- Extruded aluminum body hard anodized cylinder bore rock hard and glass smooth
- Nickel plated steel shaft
- Stainless steel fasteners
- High tensile long life return springs
- Visual position indicator
- Indoor or outdoor installation
- Single massive travel stop on one end eliminates need of balancing stop on both ends (EA sizes 2~7)
- Fast field conversion between double acting and spring return, fail open or fail closed
- Minimum ambient temperature while actuator is at rest: -35°C (-31°F)

Service limits

Imperial system			Metric system		
	Min	Max		Min	Max
Pressure (PSI)	40	150	Pressure (Bar)	3	10
Temperature (°F)	0	175	Temperature (°C)	-20	80

Accessories

- Limit switch box
- Solenoid valves
- Visual position indicator
- Link kit
- Springs



Limit switch box



Solenoid valve



Visual position indicator



Link kit



Springs

How to order

EA **4** - **2** **SX** **A**

Springs to Close/Open

Blank = Spring to close
A = Spring to open

N° of Springs

Blank = Double acting actuators (size 1 not available with springs)
From S2 to S12 = Spring return for actuator sizes from 2 to 4
From S4 to S8 = Spring return for actuator sizes from 5 to 7*

***NOTE: for sizes from 5 to 7, springs in excess of 4 are internal springs (see example EA4-6S8).**

Actuator sizes - Square:

1 = F03 - SQUARE 9
2 = F03/F05 - SQUARE 9
2A = F03/F05 - SQUARE 11 (only metric version)
2B = F04 - SQUARE 11 (only metric version)
3 = F05/F07 - SQUARE 14
4 = F05/F07 - SQUARE 14
5 = F05/F07 - SQUARE 17
6 = F07 - SQUARE 17
7 = F07/F10 - SQUARE 22

Type of threads:

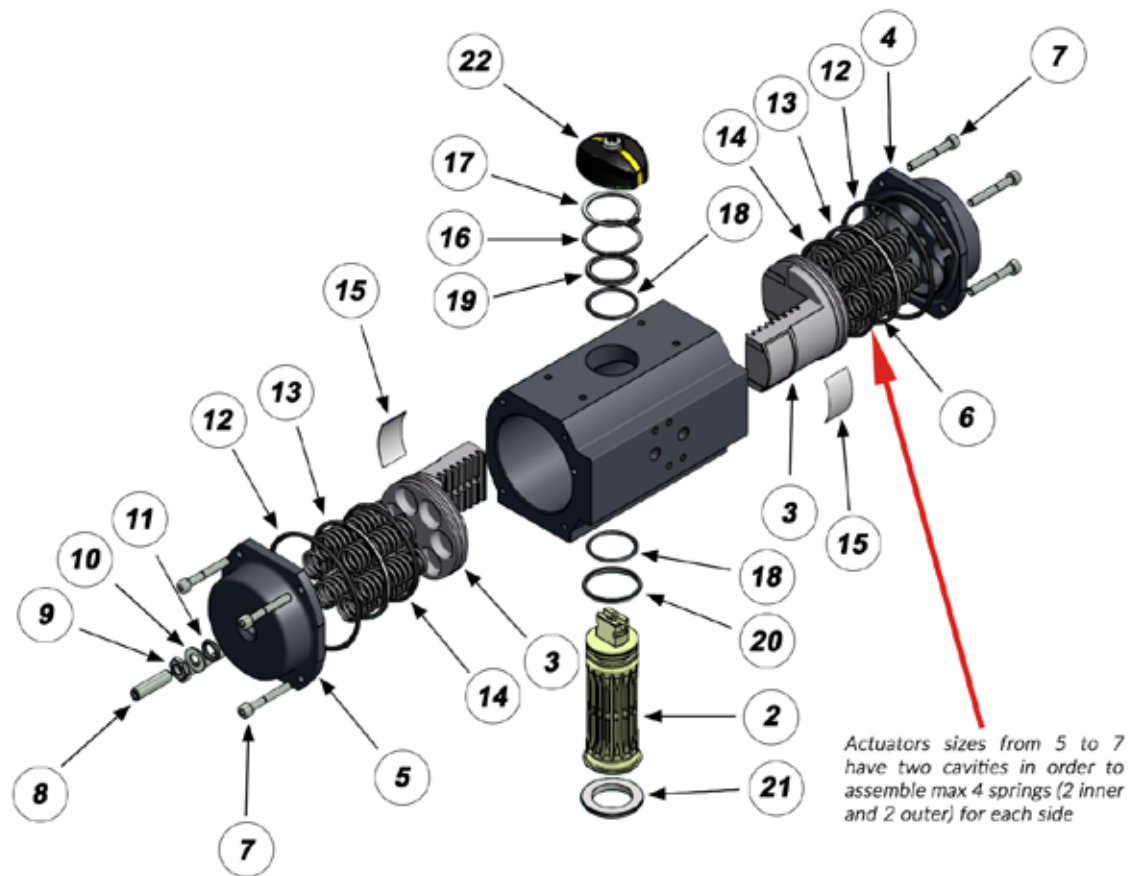
2 = Metric Threads
4 = Imperial Threads (except top of stem - K dimension - is M6)

Example

EA4-6S8 is an EA actuator with imperial threads,
size 6 with 8 springs to close (4 external springs and 4 internal springs)

EA2-4 is an EA actuator with metric threads,
size 4, with no springs

Construction and materials:



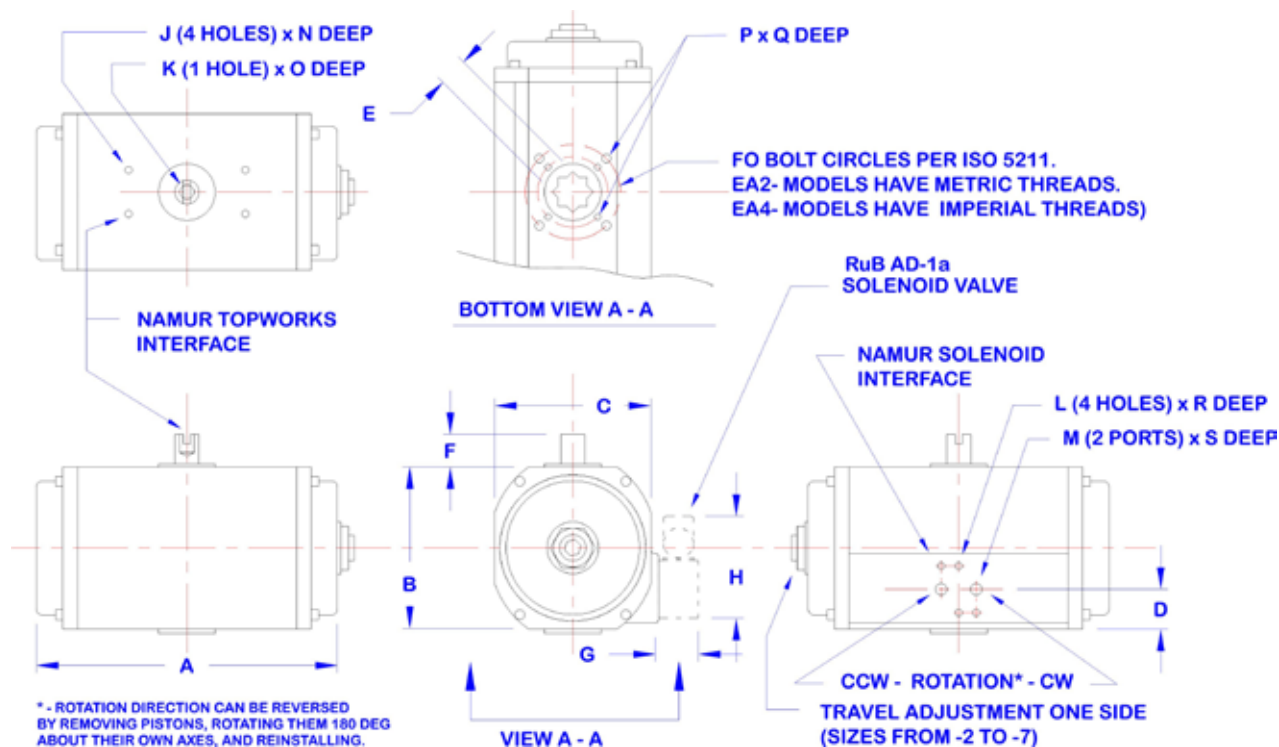
Bill of materials

EA-4 is shown. Smaller sizes have similar construction except EA-1 that has Nylon endcaps and pistons

Item	Description	Q.ty	Material
1	Body	1	Anod, aluminum
2	Shaft	1	Steel - zinc plated
3	Piston	2	Aluminum
4	End-cap	1	Anod, aluminum
5	End-cap (stop bolt)	1	Anod, aluminum
6	Spring	12 Max	Cr-Si steel
7	Cap bolt	8	St steel
8	Stop bolt	1	Hi tensile steel
9	Stop bolt nut	1	Hi tensile steel
10	Washer	1	Polyethylene
11	O-Ring (end stop)	1	NBR
12	O-Ring (end cover)	2	NBR
13	Piston ring	2	POM**
14	Piston ring	2	NBR
15	Wear pad	2	POM**
16	Shaft washer	1	Polyethylene
17	Snap ring	1	Steel
18	O-Ring (drive shaft)	2	NBR
19	Shaft bearing upper	1	POM**
20	Shaft bearing lower	1	POM**
21	Alignment ring	1	POM**
22	Indicator	1	Nylon

** Polyoxymethylene commonly "Delrin"

Dimensions:



Size	Metric system - mm																		
	F0	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S
1	F03	103	45	51	22,5	9	20	26	67	M5	M6	M5	G1/8	5	12	M5	8	8	7
2	F03/05	150	70	70	23	9	20	26	67	M5	M6	M5	G1/8	8	12	M5 / M6	8 / 10	8	10
2A	F03/05	150	70	70	23	11	20	26	67	M5	M6	M5	G1/8	8	12	M5 / M6	8 / 10	8	10
2B	F04	150	70	70	23	11	20	26	67	M5	M6	M5	G1/8	8	12	M5 / M6	8 / 10	8	10
3	F05/07	187	87	91	34,5	14	20	26	67	M5	M6	M5	G1/8	8	12	M6 / M8	10 / 13	8	10
4	F05/07	206	118	113	29,5	14	20	26	67	M5	M6	M5	G1/8	8	12	M6 / M8	10 / 13	8	10
5	F05/07	194	118,5	121	29,5	17	20	26	67	M5	M6	M5	G1/4	5	12	M6 / M8	10 / 10	8	12
6	F07/10	218	140,5	136,5	29,5	17	20	26	67	M5	M6	M5	G1/4	5	12	M8 / M10	10 / 16	8	12
7	F07/10	266	166,5	156	30	22	20	26	67	M5	M6	M5	G1/4	5	12	M8 / M10	13 / 16	8	12

Size	Imperial system - inch																		
	F0	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S
1	F03	4,06	1,77	2,01	0,89	0,35	0,79	1,02	2,64	10-32	M6	10-32	1/8 NPT	0,20	0,47	10-32	0,31	0,31	0,28
2	F03/05	5,91	2,76	2,76	0,91	0,35	0,79	1,02	2,64	10-32	M6	10-32	1/8 NPT	0,31	0,47	10-32 / 1/4"-20	0,31 / 0,39	0,31	0,39
3	F05/07	7,36	3,43	3,58	1,36	0,55	0,79	1,02	2,64	10-32	M6	10-32	1/8 NPT	0,31	0,47	1/4"-20 / 5/16"-18	0,39 / 0,51	0,31	0,39
4	F05/07	8,11	4,65	4,45	1,16	0,55	0,79	1,02	2,64	10-32	M6	10-32	1/8 NPT	0,31	0,47	1/4"-20 / 5/16"-18	0,39 / 0,51	0,31	0,39
5	F05/07	7,64	4,67	4,76	1,16	0,67	0,79	1,02	2,64	10-32	M6	10-32	1/4 NPT	0,20	0,47	1/4"-20 / 5/16"-18	0,47 / 0,47	0,31	0,50
6	F07/10	8,58	5,53	5,37	1,16	0,67	0,79	1,02	2,64	10-32	M6	10-32	1/4 NPT	0,20	0,47	5/16"-18 / 3/8"-16	0,51 / 0,63	0,31	0,50
7	F07/10	10,47	6,56	6,14	1,18	0,87	0,79	1,02	2,64	10-32	M6	10-32	1/4 NPT	0,20	0,47	5/16"-18 / 3/8"-16	0,51 / 0,63	0,31	0,50

Torque rating charts for EA2 actuators - METRIC threads

Double acting - torque in N.m									
		Air pressure supply (bar)							
EA2-	Springs	3	4	5	6	7	8	9	10
1	0	4,4	5,8	7,3	8,7	10,2	11,6	13,1	14,5
2-2A	0	11,8	15,8	19,7	23,7	27,6	31,6	35,5	39,5
3	0	25,4	33,8	42,3	50,7	59,2	67,6	76,1	84,5
4	0	50,7	67,6	84,5	101,5	118,4	135,3	152,2	169,1
5	0	61,3	81,7	102,1	122,5	142,9	163,3	183,8	204,2
6	0	101,0	134,6	168,3	201,9	235,6	269,2	302,9	336,5
7	0	187,1	249,5	311,8	374,2	436,5	498,9	561,3	623,6

Spring return - torque in N.m																									
	Springs			spring stroke		air stroke - start										air stroke - end									
						Air pressure supply (bar)										Air pressure supply (bar)									
EA2-	total	outer	inner	start	end	3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10				
2-2A	2			2,62	1,34	10,5	14,4	18,4	22,3	26,3	30,2	34,2	38,1	9,2	13,2	17,1	21,1	25,0	28,9	32,9	36,8				
	3			3,93	2,01	9,8	13,8	17,7	21,7	25,6	29,6	33,5	37,4	7,9	11,9	15,8	19,7	23,7	27,6	31,6	35,5				
	4			5,24	2,68	9,2	13,1	17,0	21,0	24,9	28,9	32,8	36,8	6,6	10,5	14,5	18,4	22,4	26,3	30,3	34,2				
	5			6,55	3,35	8,5	12,4	16,4	20,3	24,3	28,2	32,2	36,1	5,3	9,2	13,2	17,1	21,1	25,0	29,0	32,9				
	6			7,86	4,02	7,8	11,8	15,7	19,7	23,6	27,5	31,5	35,4	4,0	7,9	11,9	15,8	19,8	23,7	27,6	31,6				
	7			9,17	4,69		11,1	15,0	19,0	22,9	26,9	30,8	34,8		6,6	10,6	14,5	18,4	22,4	26,3	30,3				
	8			10,48	5,36		10,4	14,4	18,3	22,3	26,2	30,1	34,1		5,3	9,2	13,2	17,1	21,1	25,0	29,0				
	9			11,79	6,03			13,7	17,6	21,6	25,5	29,5	33,4			7,9	11,9	15,8	19,8	23,7	27,7				
	10			13,1	6,7			13,0	17,0	20,9	24,9	28,8	32,8			6,6	10,6	14,5	18,5	22,4	26,4				
	11			14,41	7,37				16,3	20,2	24,2	28,1	32,1				9,3	13,2	17,2	21,1	25,0				
	12			15,72	8,04				15,6	19,6	23,5	27,5	31,4				8,0	11,9	15,8	19,8	23,7				
	3	2			5,44	3	22,4	30,8	39,3	47,7	56,2	64,6	73,1	81,5	19,9	28,4	36,8	45,3	53,7	62,2	70,7	79,1			
3				8,16	4,5	20,9	29,3	37,8	46,2	54,7	63,1	71,6	80,0	17,2	25,7	34,1	42,6	51,0	59,5	67,9	76,4				
4				10,88	6	19,4	27,8	36,3	44,7	53,2	61,6	70,1	78,5	14,5	22,9	31,4	39,8	48,3	56,8	65,2	73,7				
5				13,6	7,5	17,9	26,3	34,8	43,2	51,7	60,1	68,6	77,0	11,8	20,2	28,7	37,1	45,6	54,0	62,5	70,9				
6				16,32	9	16,4	24,8	33,3	41,7	50,2	58,6	67,1	75,5	9,0	17,5	26,0	34,4	42,9	51,3	59,8	68,2				
7				19,04	10,5		23,3	31,8	40,2	48,7	57,1	65,6	74,0		14,8	23,2	31,7	40,1	48,6	57,1	65,5				
8				21,76	12		21,8	30,3	38,7	47,2	55,6	64,1	72,5		12,1	20,5	29,0	37,4	45,9	54,3	62,8				
9				24,48	13,5			28,8	37,2	45,7	54,1	62,6	71,0			17,8	26,2	34,7	43,2	51,6	60,1				
10				27,2	15			27,3	35,7	44,2	52,6	61,1	69,5			15,1	23,5	32,0	40,4	48,9	57,3				
11				29,92	16,5				34,2	42,7	51,1	59,6	68,0				20,8	29,3	37,7	46,2	54,6				
12				32,64	18				32,7	41,2	49,6	58,1	66,5				18,1	26,5	35,0	43,5	51,9				
4		2			10,24	6,68	44,0	61,0	77,9	94,8	111,7	128,6	145,5	162,4	40,5	57,4	74,3	91,2	108,1	125,0	141,9	158,9			
	3			15,36	10,02	40,7	57,6	74,5	91,4	108,3	125,3	142,2	159,1	35,4	52,3	69,2	86,1	103,0	119,9	136,8	153,7				
	4			20,48	13,36	37,4	54,3	71,2	88,1	105,0	121,9	138,8	155,7	30,2	47,2	64,1	81,0	97,9	114,8	131,7	148,6				
	5			25,6	16,7	34,0	50,9	67,8	84,8	101,7	118,6	135,5	152,4	25,1	42,0	58,9	75,9	92,8	109,7	126,6	143,5				
	6			30,72	20,04	30,7	47,6	64,5	81,4	98,3	115,2	132,1	149,1	20,0	36,9	53,8	70,7	87,6	104,6	121,5	138,4				
	7			35,84	23,38		44,3	61,2	78,1	95,0	111,9	128,8	145,7		31,8	48,7	65,6	82,5	99,4	116,3	133,3				
	8			40,96	26,72		40,9	57,8	74,7	91,6	108,6	125,5	142,4		26,7	43,6	60,5	77,4	94,3	111,2	128,1				
	9			46,08	30,06			54,5	71,4	88,3	105,2	122,1	139,0			38,5	55,4	72,3	89,2	106,1	123,0				
	10			51,2	33,4			51,1	68,1	85,0	101,9	118,8	135,7			33,3	50,3	67,2	84,1	101,0	117,9				
	11			56,32	36,74				64,7	81,6	98,5	115,4	132,4				45,1	62,0	79,0	95,9	112,8				
	12			61,44	40,08				61,4	78,3	95,2	112,1	129,0				40,0	56,9	73,8	90,7	107,7				
	5	4	4	0		52,4	28,8	32,5	52,9	73,3	93,7	114,1	134,5	155,0	175,4	8,9	29,3	49,7	70,1	90,5	110,9	131,4	151,8		
5		4	1		58,95	32,4		49,3	69,7	90,1	110,5	130,9	151,4	171,8		22,7	43,1	63,6	84,0	104,4	124,8	145,2			
6		4	2		65,5	36		45,7	66,1	86,5	106,9	127,3	147,8	168,2		16,2	36,6	57,0	77,4	97,8	118,3	138,7			
7		4	3		72,05	39,6			62,5	82,9	103,3	123,7	144,2	164,6			30,0	50,5	70,9	91,3	111,7	132,1			
6	4	4	4		78,6	43,2			58,9	79,3	99,7	120,1	140,6	161,0			23,5	43,9	64,3	84,7	105,2	125,6			
	4	4	0		86,8	47,7	53,3	86,9	120,6	154,2	187,9	221,5	255,2	288,8	14,2	47,8	81,5	115,1	148,8	182,4	216,1	249,7			
	5	4	1		97,65	53,675		80,9	114,6	148,3	181,9	215,6	249,2	282,9		37,0	70,6	104,3	137,9	171,6	205,2	238,9			
	6	4	2		108,5	59,65		75,0	108,6	142,3	175,9	209,6	243,2	276,9		26,1	59,8	93,4	127,1	160,7	194,4	228,0			
7	4	4	3		119,35	65,625			102,6	136,3	170,0	203,6	237,3	270,9			48,9	82,6	116,2	149,9	183,5	217,2			
	4	4	4		130,2	71,6			96,7	130,3	164,0	197,6	231,3	264,9			38,1	71,7	105,4	139,0	172,7	206,3			
	4	4	0		160,8	88,4	98,7	161,1	223,4	285,8	348,1	410,5	472,9	535,2	26,3	88,7	151,0	213,4	275,7	338,1	400,5	462,8			
	5	4	1		180,9	99,45		150,0	212,4	274,7	337,1	399,5	461,8	524,2		68,6	130,9	193,3	255,6	318,0	380,4	442,7			
8	4	4	2		201	110,5		139,0	201,3	263,7	326,0	388,4	450,8	513,1		48,5	110,8	173,2	235,5	297,9	360,3	422,6			
	7	4	3		221,1	121,55			190,3	252,6	315,0	377,4	439,7	502,1			90,7	153,1	215,4	277,8	340,2	402,5			
	8	4	4		241,2	132,6			179,2	241,6	303,9	366,3	428,7	491,0			70,6	133,0	195,3	257,7	320,1	382,4			

Torque rating charts for EA4 actuators - IMPERIAL threads

Double acting - torque In-lb										
EA4-	Springs	Air pressure supply (PSI)								
		40	50	60	70	80	90	100	110	120
1	0	35	44	53	62	71	80	89	98	106
2	0	96	120	144	168	193	217	241	265	289
3	0	206	258	309	361	413	464	516	567	619
4	0	413	516	619	722	825	928	1032	1135	1238
5	0	498	623	747	872	996	1121	1246	1370	1495
6	0	821	1027	1232	1437	1642	1848	2053	2258	2464
7	0	1522	1902	2283	2663	3044	3424	3804	4185	4565

Spring return - torque in in-lb																								
EA4-	Springs		spring stroke		air stroke - start Air pressure supply (PSI)												air stroke - end Air pressure supply (PSI)							
	total	outer	inner	start	end	40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120	
2	2			23	12	84	108	133	157	181	205	229	253	277	73	97	121	145	169	193	218	242	266	
	3			35	18	78	103	127	151	175	199	223	247	271	62	86	110	134	158	182	206	230	254	
	4			46	24	73	97	121	145	169	193	217	241	265	50	74	98	122	146	170	194	218	242	
	5			58	30	67	91	115	139	163	187	211	235	259	38	62	86	111	135	159	183	207	231	
	6			70	36		85	109	133	157	181	205	229	253	51	75	99	123	147	171	195	219	243	
	7			81	41		79	103	127	151	175	199	223	247	39	63	87	111	135	160	184	208	232	
	8			93	47			97	121	145	169	193	217	241		52	76	100	124	148	172	196	220	
	9			104	53				115	139	163	187	211	235			64	88	112	136	160	185	209	
	10			116	59				109	133	157	181	205	230			53	77	101	125	149	173	197	
	11			127	65					127	151	175	200	224				65	89	113	137	161	185	
	12			139	71						145	170	194	218					78	102	126	150	174	
	3	2			48	27	180	231	283	334	386	438	489	541	592	156	210	261	313	364	416	468	519	571
3				72	40	166	218	270	321	373	424	476	528	579	134	186	237	289	340	392	444	495	547	
4				96	53	153	205	256	308	360	411	463	514	566	110	162	213	265	316	368	419	471	523	
5				120	66	140	192	243	295	346	398	449	501	553	86	138	189	241	292	344	395	447	499	
6				144	80		178	230	281	333	385	436	488	539	113	165	217	268	320	371	423	475	527	
7				168	93		165	217	268	320	371	423	474	526	89	141	193	244	296	347	399	450	502	
8				193	106			203	255	306	358	410	461	513		117	169	220	272	323	375	426	478	
9				217	119				242	293	345	396	448	499			144	196	248	299	351	402	454	
10				241	133				226	280	331	383	435	486			120	172	224	275	327	378	430	
11				265	146					267	318	370	421	473				148	199	251	303	354	406	
12				289	159						305	356	408	460					175	227	279	330	382	
4		2			91	59	354	457	560	663	766	869	972	1076	1179	322	425	528	631	735	838	941	1044	1147
	3			136	89	324	427	530	633	737	840	943	1046	1149	277	380	483	586	689	792	895	999	1102	
	4			181	118	294	398	501	604	707	810	913	1016	1120	231	335	438	541	644	747	850	953	1057	
	5			227	146	265	368	471	574	677	781	884	987	1090	186	289	392	496	599	702	805	908	1011	
	6			272	177		338	442	545	648	751	854	957	1061		244	347	450	553	657	760	863	966	
	7			317	207		309	412	515	618	722	825	928	1031		199	302	405	508	611	714	818	921	
	8			362	236			382	486	589	692	795	898	1001			257	360	463	566	669	772	875	
	9			408	266				456	559	662	766	869	972				314	418	521	624	727	830	
	10			453	296				427	530	633	736	839	942			269	372	475	579	682	785	888	
	11			498	325					500	603	706	810	913					327	430	533	636	740	
	12			544	355						574	677	780	883						385	488	591	694	
	5	4	4	0	464	255		368	493	617	742	866	991	1115	1240		159	284	408	533	657	782	907	1031
5		4	1	522	287			461	585	710	834	959	1083	1208			226	350	475	599	724	849	973	
6		4	2	580	319			429	553	678	803	927	1052	1176			168	292	417	541	666	791	915	
7		4	3	637	350				522	646	771	895	1020	1144				234	359	484	608	733	857	
6	4	4	4	695	382					614	738	863	988	1112					301	426	550	675	799	
	4	4	0	798	422		604	810	1015	1220	1426	1631	1836	2042		259	464	669	874	1080	1285	1490	1696	
	5	4	1	864	475			757	962	1168	1373	1578	1783	1989			368	573	778	984	1189	1394	1600	
	6	4	2	960	528			704	909	1115	1320	1525	1731	1936			272	477	682	888	1093	1298	1504	
7	4	4	3	1056	581				856	1062	1267	1472	1678	1883				381	586	792	997	1202	1408	
	4	4	4	1152	634				804	1009	1214	1420	1625	1830				285	490	696	901	1106	1312	
	4	4	0	1423	762		1120	1500	1881	2261	2642	3022	3403	3783		479	860	1240	1621	2001	2382	2762	3143	
	5	4	1	1601	880		1022	1403	1783	2164	2544	2924	3305	3685		302	682	1063	1443	1823	2204	2584	2965	
8	4	4	2	1778	978			1305	1685	2066	2446	2827	3207	3588			504	885	1265	1646	2026	2406	2787	
	4	4	3	1956	1075			1207	1588	1968	2349	2729	3109	3490			326	707	1087	1468	1848	2229	2609	
	4	4	4	2134	1173				1490	1870	2251	2631	3012	3392				529	909	1290	1670	2051	2431	

Quick pick chart for EA2 (Metric threads) pneumatic actuators assembled on s64, s76, s72 and s73 RuB ball valves

For service with pipeline ΔP lower than the maximum limits shown below, and for media having friction characteristics similar to clean water or moist/lubricated gases the following actuator selections can be used.

For higher pipeline pressures or more difficult media the selection must be made using the valve torque charts found on each valve data sheet, and the actuator torque rating chart found on the following page.

For assistance in actuator selection please contact **BONOMI INDUSTRIES** at the following email address: sales@rubvalves.com or your **BONOMI INDUSTRIES** distributor.

Linkage kit selection table

s64 LT	
Valve size	Actuator size
1" ~ 1-1/4"	EA2 -1 -2 -2A -3 -4
1-1/2" ~ 2"	LK- 1 1 - 3 3
	LK- 4 4 6 6

s64	
Valve size	Actuator size
1/2" ~ 1"	EA2 -1 -2 -2A -3 -4 -5 -6 -7
1-1/4" ~ 1-1/2"	LK- 1 1 - 3 3 - - -
2"	LK- 4 6 6 13 7 -
2-1/2" ~ 4"	LK- 4 4 4 14 5 21
	LK- 15 15 22

s72, s73, s76	
Valve size	Actuator size
1/2" ~ 1"	EA2 -1 -2 -2A -3 -4
	LK- 1 1 - 3 3

		Air pressure supply (bar)																			
VALVE	ΔP Media (Bar)	3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10	Spring-to-Open Actuators EA2-			
s64 LT		Double Acting Actuators EA2-																			
	6	1	1	1	1	1	1	1	1	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	
1-1/4"	6	1	1	1	1	1	1	1	1	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	
1-1/2"	6	2A	2A	2A	2A	2A	2A	2A	2A	2A56	2A56	2A56	2A56	2A56	2A56	2A56	2A56	2A56	2A56	2A56	
2"	6	2A	2A	2A	2A	2A	2A	2A	2A	3s4	2A58	2A58	2A58	2A58	2A58	2A58	2A58	2A58	2A58	2A58	
1"	16 Max	1	1	1	1	1	1	1	1	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	
1-1/4"	16 Max	1	1	1	1	1	1	1	1	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	
1-1/2"	16 Max	2A	2A	2A	2A	2A	2A	2A	2A	3s4	3s4	2A59	2A59	2A59	2A59	2A59	2A59	2A59	2A59	2A59	
2"	16 Max	3	2A	2A	2A	2A	2A	2A	2A	3s6	3s6	3s6	2A512	2A512	2A512	2A512	2A512	2A512	2A512	2A512	

		Air pressure supply (bar)																							
VALVE	ΔP* Media (Bar)	3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10	Spring-to-Open Actuators EA2-							
s64		Double Acting Actuators EA2-								Spring-to-Close Actuators EA2-															
1/2"	15	1	1	1	1	1	1	1	1	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3
3/4"	15	1	1	1	1	1	1	1	1	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4
1"	15	2	2	1	1	1	1	1	1	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s7	2s7	2s7	2s7	2s7	2s7	2s7	2s7
1-1/4"	15	2A	2A	2A	2A	2A	2A	2A	2A	3s6	3s6	3s6	2As12	2As12	2As12	2As12	2As12	3s5	3s5	2As11	2As11	2As11	2As11	2As11	2As11
1-1/2"	15	3	3	3	3	3	2A	2A	2A	4s4	4s4	3s9	3s9	3s9	3s9	3s9	3s9	4s5	4s5	3s10	3s10	3s10	3s10	3s10	3s10
2"	15	4	3	3	3	3	3	3	3	4s5	4s5	4s5	3s11	3s11	3s11	3s11	3s11	4s6	4s6	3s12	3s12	3s12	3s12	3s12	3s12
2-1/2"	15	5	5	5	5	5	5	5	5	7s4	5s4	5s4	5s4	5s4	5s4	5s4	5s4	7s4	5s4	5s4	5s4	5s4	5s4	5s4	5s4
3"	15	7	6	5	5	5	5	5	5	7s4	7s4	7s4	6s7	6s7	6s7	6s7	7s4	7s4	6s7	6s7	6s7	6s7	6s7	6s7	
4"	15	7	7	7	6	6	6	6	5	7s7	7s7	7s7	7s7	7s7	7s7	7s7	7s7	7s7	7s7	7s7	7s7	7s7	7s7	7s7	

* Selections apply for valves used with ΔP up to 15 Bar Max. For ΔP over 15 Bar and up to 40 Bar (30 Bar for sizes over 2"), please consult **BONOMI INDUSTRIES** for sizing recommendations.

VALVE	ΔP* Media (Bar)	Air pressure supply (bar)															
		3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10
s72, s73		Double Acting Actuators EA2-								Spring-to-Close Actuators EA2-							
1/2"	15	2	2	2	2	2	2	1	1	4s4	3s7	3s7	3s7	3s7	3s7	3s7	3s7
3/4"	15	3	2	2	2	2	2	1	1	4s4	4s4	3s9	3s9	3s9	3s9	3s9	3s9
1"	15	4	3	3	3	3	3	2	2			4s9	4s9	4s9	4s9	4s9	4s9

* Selections apply for valves used with ΔP up to 16 Bar Max. For ΔP over 16 Bar and up to 20 Bar, please consult **BONOMI INDUSTRIES** for sizing recommendations.

* Selections apply for valves used with ΔP up to 16 Bar Max. For ΔP over 16 Bar and up to 20 Bar, please consult **BONOMI INDUSTRIES** for sizing recommendations.

VALVE	Δp Media (Bar)	Air pressure supply (bar)																							
		Double Acting Actuators EA2-								Spring-to-Close Actuators EA2-								Spring-to-Open Actuators EA2-							
s76		3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10
1/2"	15	1	1	1	1	1	1	1	1	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
3/4"	15	1	1	1	1	1	1	1	1	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256
1"	15	2	1	1	1	1	1	1	1	257	257	257	257	257	257	257	257	257	257	257	257	257	257	257	257

Red font = selection driven by valve stem size

Quick pick chart for EA4 (Imperial threads) pneumatic actuators assembled on s64, s76, s134, s72 and s73 RuB ball valves

For service with pipeline ΔP lower than the maximum limits shown below, and for media having friction characteristics similar to clean water or moist/lubricated gases the following actuator selections can be used.

For higher pipeline pressures or more difficult media the selection must be made using the valve torque charts found on each valve data sheet, and the actuator torque rating chart found on the following page.

VALVE	s64 LT	ΔP* Media (PSI)	Air pressure supply (PSI)																Spring-to-Open Actuators EA4-	Spring-to-Open Actuators EA4-
			40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120
1"		90	1	1	1	1	1	1	1	1	1	252	252	252	252	252	252	252	252	252
1-1/4"		90	1	1	1	1	1	1	1	1	1	253	253	253	253	253	253	253	253	253
1-1/2"		90	3	3	3	3	3	3	3	3	3	353	353	353	353	353	353	353	353	353
2"		90	3	3	3	3	3	3	3	3	3	354	354	354	354	354	354	354	354	354
230 Max			1	1	1	1	1	1	1	1	1	254	254	254	254	254	254	254	254	254
1-1/4"		230 Max	1	1	1	1	1	1	1	1	1	254	254	254	254	254	254	254	254	254
1-1/2"		230 Max	3	3	3	3	3	3	3	3	3	354	354	354	354	354	354	354	354	354
2"		230 Max	3	3	3	3	3	3	3	3	3	453	356	356	356	356	356	356	356	356

VALVE	s64	ΔP* Media (PSI)	Air pressure supply (PSI)																Spring-to-Open Actuators EA4-	Spring-to-Open Actuators EA4-
			40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120
1/2"		200	1	1	1	1	1	1	1	1	1	252	252	252	252	252	252	252	252	252
3/4"		200	2	1	1	1	1	1	1	1	1	253	253	253	253	253	253	253	253	253
1"		200	2	2	2	2	2	2	2	2	2	254	254	254	254	254	254	254	254	254
1-1/4"		200	3	3	3	3	3	3	3	3	3	453	356	356	356	356	356	356	356	356
1-1/2"		200	4	3	3	3	3	3	3	3	3	454	454	359	359	359	359	359	359	359
2"		200	4	4	4	4	4	4	4	4	4	455	455	455	455	455	455	455	455	455
2-1/2"		200	5	5	5	5	5	5	5	5	5	654	554	554	554	554	554	554	554	554
3"		200	7	6	6	6	6	6	6	6	6	754	754	657	657	657	657	657	657	657
4"		200	7	7	7	7	7	7	7	7	7	757	757	757	757	757	757	757	757	757

* Selections apply for valves used with ΔP up to 200 PSI Max. For ΔP over 200 PSI and up to 600 PSI (450 PSI for sizes over 2"), please consult **BONOMI INDUSTRIES** for sizing recommendations.

Note: s74 available up to 1" size.

VALVE	s134	ΔP* Media (PSI)	Air pressure supply (PSI)																Spring-to-Open Actuators EA4-	Spring-to-Open Actuators EA4-
			40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120
1/2"		200	2	2	2	2	2	2	2	2	2	254	254	254	254	254	254	254	254	254
3/4"		200	2	2	2	2	2	2	2	2	2	354	257	257	257	257	257	257	257	257
1"		200	3	3	3	3	3	3	3	3	3	354	354	354	354	354	354	354	354	354
1-1/4"		200	3	3	3	3	3	3	3	3	3	453	356	356	356	356	356	356	356	356
1-1/2"		200	4	3	3	3	3	3	3	3	3	454	454	358	358	358	358	358	358	358
2"		200	4	4	4	4	4	4	4	4	4	456	456	456	456	456	456	456	456	456

* Selections apply for valves used with ΔP up to 200 PSI Max. For ΔP over 200 PSI and up to 1000 PSI, please consult **BONOMI INDUSTRIES** for sizing recommendations.

VALVE	s72, s73	ΔP* Media (PSI)	Air pressure supply (PSI)																Spring-to-Open Actuators EA4-	Spring-to-Open Actuators EA4-
			40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120
1/2"		230	2	2	2	2	2	2	2	2	2	454	357	357	357	357	357	357	357	357
3/4"		230	3	2	2	2	2	2	2	2	2	454	454	359	359	359	359	359	359	359
1"		230	4	4	4	4	4	4	4	4	4	459	459	459	459	459	459	459	459	459

* Selections apply for valves used with ΔP up to 230 PSI Max. For ΔP over 230 PSI and up to 300 PSI, please consult **BONOMI INDUSTRIES** for sizing recommendations.

VALVE	s76	ΔP* Media (PSI)	Air pressure supply (PSI)																Spring-to-Open Actuators EA4-	Spring-to-Open Actuators EA4-
			40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120
1/2"		200	1	1	1	1	1	1	1	1	1	256	256	256	256	256	256	256	256	256
3/4"		200	2	1	1	1	1	1	1	1	1	256	256	256	256	256	256	256	256	256
1"		200	2	1	1	1	1	1	1	1	1	257	257	257	257	257	257	257	257	257

Red font = selection driven by valve stem size

Linkage kit selection table

s64 LT		
Valve size		Actuator size
		EA2 -1 -2 -2A -3
1" ~ 1-1/4"	LK-	8 8 9 9
1-1/2" ~ 2"	LK-	4 4 6 6

s64		
Valve size		Actuator size
		EA2 -1 -2 -3 -4 -5 -6 -7
1/2" ~ 1"	LK-	8 8 9 9 - - -
1-1/4" ~ 1-1/2"	LK-	10 10 16 16 23 23
2-1/2" ~ 4"	LK-	18 18 24 24

s134		
Valve size		Actuator size
		EA2 -1 -2 -3 -4 -5 -6 -7
1/2" ~ 3/4"	LK-	8 8 9 9 - - -
1" ~ 1-1/2"	LK-	11 11 19 20 -
2"	LK-	10 10 16 16 23 23

s72, s73, s76		
Valve size		Actuator size
		EA2 -1 -2 -3 -4
1/2" ~ 1"	LK-	8 8 9 9

Ask for additional information on the whole range of **BONOMI INDUSTRIES** products and accessories. Consult with your supplier for special applications. For assistance in actuator selection please contact **BONOMI INDUSTRIES** at the following email address: sales@rubvalves.com or your **BONOMI INDUSTRIES** distributor.



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