

DESIGN & INNOVATION

The technical features incorporated in the FEATHER "F300" Series pneumatic rack & pinion quarter turn actuators, permits to have many benefit and versatility for easier valve automation.

RANGE & OPTIONS

The FEATHER "F300" Series pneumatic actuators are available in:

11 models / Spring return and double acting versions / Torque up to 2054 Nm

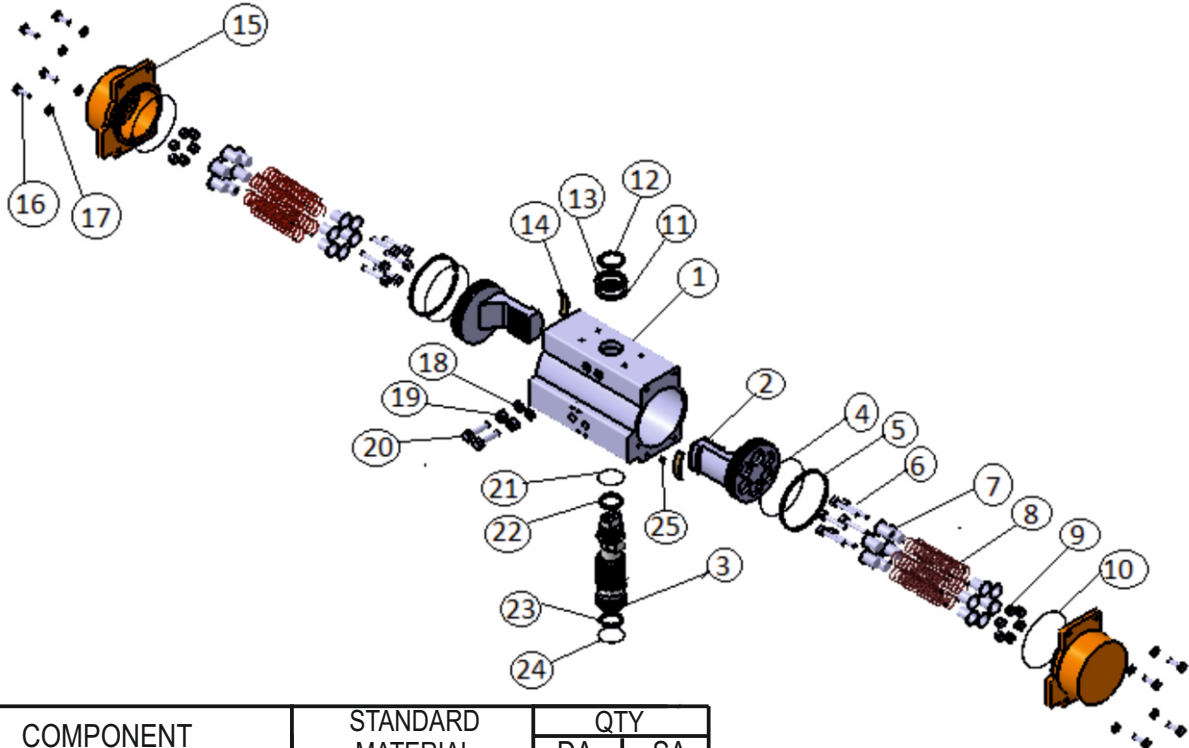
Availability of mounting as per ISO 5211 and square drive shaft connections for direct valve automation

PRODUCT QUALITY, TECHNOLOGY AND MATERIAL

The FEATHER "F300" Series pneumatic actuators have been designed and tested to obtain the highest cycling life and the most reliable performance with much reduced maintenance and service. The actuators are manufactured with the highest quality material, the most accurate material selections and the latest production technologies.

INTERNATIONAL STANDARD

The FEATHER "F300" Series pneumatic actuators, have been designed, manufactured and tested in full compliance with BS EN 15714 Part 3 standard.



Sr. No.	COMPONENT	STANDARD MATERIAL	QTY	
			DA	SA
1	BODY	AL 6063T6	1	1
2	PISTON	AL LM6	2	2
3	PINION	AL HE30	1	1
4	PISTON ' O ' RING	NITRILE	2	2
5	PISTON BAND LARGE	GRAPHITE	2	2
6	CARTRIDGE BOLT	SS304	-	12
7	CARTRIDGE	MILD STEEL	-	24
8	SPRING	CARBON STEEL	-	12
9	CARTRIDGE BOLT NUT	SS304	-	12
10	END CAP ' O ' RING	NITRILE	2	2
11	WASHER	NYLON	1	1
12	EXTERNAL CIRCLIP	MILD STEEL	1	1
13	WASHER	SS304	1	1
14	PISTON BAND SMALL	GRAPHITE	2	2
15	END CAP	AL LM6	2	2
16	END CAP BOLT	SS304	8	8
17	END CAP BOLT WASHER	SS304	8	8
18	STOPPER BOLT WASHER	SS304	2	2
19	STOPPER BOLT NUT	SS304	2	2
20	STOPPER BOLT	SS304	2	2
21	PINION UPPER ' O ' RING	NITRILE	1	1
22	PINION UPPER BAND	PTFE	1	1
23	PINION LOWER BAND	PTFE	1	1
24	PINION LOWER ' O ' RING	NITRILE	1	1
25	PLUG	NITRILE	2	2

Double Acting Output Torque (N-m)						
MODEL	3	4	5.5	6	7	8
S1053	14	19	26	28	33	37
S2067	22	30	41	45	52	60
S3076	34	45	62	67	78	90
M1085	48	64	88	96	112	128
M2100	75	100	137	150	175	199
M3115	132	176	242	264	308	352
B1125	156	208	286	312	364	416
B2160	298	397	546	596	695	795
B3175	458	611	840	917	1070	1222
L1200	699	931	1281	1397	1630	1863
L2215	770	1027	1412	1540	1797	2054

TECHNICAL FEATURES:-

1. Hard Anodized Body

Extruded aluminum body with hard anodization applied internally and externally for a complete corrosion protection, a lower friction coefficient and an increased surface hardness for the longest wearing resistance.

2. Pistons Design

Dual piston rack and pinion design for compact construction, symmetric mounting position, high-cycle life and fast operation, reverse rotation can be accomplished in the field by simply inverting the pistons.

3. Two Independent External Travel Stop Adjustments

As a standard, travel stops allowing adjustment for -5° to $+5^{\circ}$ on the close position, and for $+5^{\circ}$ to -5° on the open position. This allows accurate valve alignment.

4. Universal And Anti-blowout Drive Shaft

Special design feature of pinion and body ensures anti blow out of pinion under pressure.

5. Position Indication

As standard actuators are supplied with a position indicator for a visual indication of actuator/valve position.

6. Modular Preloaded Spring

Spring cartridge design in high grade coated steel for simple range versatility, greater safety and corrosion resistance.

7. Fully Machined Teeth

On piston racks and pinion shaft for accurate positioning, low backlash and maximum engagement resulting in overall efficient operation.

8. Fasteners

Stainless steel fasteners are used as a standard which ensures the wide suitability for any service condition.

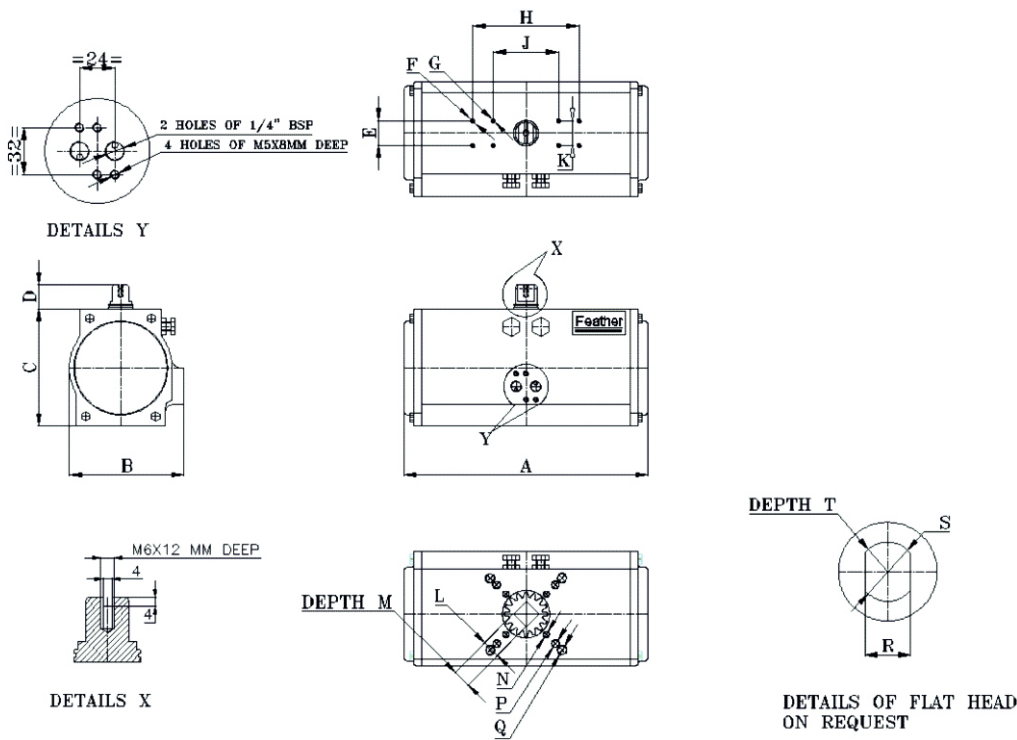
9. Supply Pressure

For Double Acting and Spring Return actuators the maximum supply pressure is up to 8 bar (116 PSI), the minimum supply pressure is 3 bar (43 PSI).

10. Full Compliance

To specifications ISO 5211, DIN 3337 and VDI/VDE 3845 providing the product interchangeability and the easiest valve automation and accessories installation.

Single Acting Output Torque (N-m)															
MODEL	SPRINGS	AIR SUPPLY PRESSURE (BAR)												SPRING TORQUE	
		3		4		5.5		6		7		8			
		PB	PE	PB	PE	PB	PE	PB	PE	PB	PE	PB	PE	SB	SE
S1053	6	9	7	14	11	21	18	-	-	-	-	-	-	7	5
	8	-	-	12	9	19	16	22	18	26	23	-	-	10	6
	10	-	-	-	-	18	14	20	16	25	21	29	25	12	8
	12	-	-	-	-	16	11	18	13	23	18	28	23	15	10
S2067	6	16	11	23	19	34	30	-	-	-	-	-	-	11	7
	8	-	-	21	15	32	26	36	30	43	37	-	-	15	9
	10	-	-	-	-	30	22	34	26	41	33	49	41	19	11
	12	-	-	-	-	28	19	31	22	39	30	46	37	22	13
S3076	6	20	11	31	22	48	39	-	-	-	-	-	-	22	14
	8	-	-	26	15	43	32	49	37	60	49	-	-	30	19
	10	-	-	-	-	38	24	44	30	55	41	66	52	37	23
	12	-	-	-	-	34	17	39	22	51	34	62	45	45	28
M1085	6	34	26	50	42	74	66	-	-	-	-	-	-	22	14
	8	-	-	46	34	70	58	78	66	94	82	-	-	30	19
	10	-	-	-	-	65	51	73	59	89	75	105	91	37	23
	12	-	-	-	-	60	43	68	51	84	67	100	83	45	28
M2100	6	46	29	71	54	108	91	-	-	-	-	-	-	46	29
	8	-	-	61	39	99	76	111	89	136	114	-	-	61	38
	10	-	-	-	-	89	61	102	73	127	98	151	123	76	48
	12	-	-	-	-	80	46	92	58	117	83	142	108	91	58
M3115	6	86	58	130	102	196	168	-	-	-	-	-	-	74	46
	8	-	-	114	77	180	143	202	165	246	209	-	-	99	62
	10	-	-	-	-	165	118	187	140	231	184	275	228	124	77
	12	-	-	-	-	149	94	171	116	215	160	259	204	148	93
B1125	6	100	68	152	120	230	198	-	-	-	-	-	-	87	56
	8	-	-	134	91	212	169	238	195	290	247	-	-	116	74
	10	-	-	-	-	193	140	219	166	271	218	323	270	146	93
	12	-	-	-	-	175	111	201	137	252	189	304	241	175	111
B2160	6	186	121	286	221	435	370	-	-	-	-	-	-	177	112
	8	-	-	248	162	397	311	447	361	546	460	-	-	235	149
	10	-	-	-	-	360	252	410	302	509	401	608	500	294	186
	12	-	-	-	-	323	193	373	243	472	342	571	441	353	223
B3175	6	276	181	432	337	666	571	-	-	-	-	-	-	258	172
	8	-	-	369	242	602	476	680	554	836	709	-	-	343	229
	10	-	-	-	-	539	380	617	458	772	614	928	770	429	287
	12	-	-	-	-	475	285	553	363	709	519	865	674	515	344
L1200	6	420	284	658	522	1014	878	-	-	-	-	-	-	386	263
	8	-	-	560	379	917	735	1035	854	1273	1091	-	-	514	351
	10	-	-	-	-	819	592	938	711	1175	949	1413	1186	643	438
	12	-	-	-	-	722	449	840	568	1078	806	1315	1043	771	526
L2215	6	460	300	720	570	1116	965	-	-	-	-	-	-	427	291
	8	-	-	616	414	1000	807	1140	938	1401	1200	-	-	589	388
	10	-	-	-	-	900	650	1032	780	1290	1040	1555	1303	711	485
	12	-	-	-	-	800	490	930	620	1180	884	1448	1145	854	582



DIMENSIONS IN MM FOR ACTUATOR

SR NO	PARAMETER	MODEL TYPE	S1053	S2067	S3076	M1085	M2100	M3115	B1125	B2160	B3175	L1200	L2215	
1	A	DA	210	222	244	271	297	299	304	331	437	486	510.5	
2	A	SA	210	222	244	271	297	373	415	486	597	680	730.5	
3	B	DA/SA	71	84.5	93.5	105.5	122	140.5	150.5	195.5	210	237.5	264	
4	C	DA/SA	79.1	96.4	111	119.2	141	143.8	154.3	196	215	248	253	
5	D	DA/SA	20	20	20	20	20	30	30	30	30	30	30	
6	E	DA/SA	NA	NA	NA	NA	NA	30	30	NA	NA	NA	NA	
7	F	DA/SA	NA	NA	NA	NA	NA	M5x8MM	M5x8MM	NA	NA	NA	NA	
8	G	DA/SA	M5x8MM	M5x8MM	M5x8MM	M5x8MM	M5x8MM	M5x8MM	M5x8MM	M5x8MM	M5x8MM	M5x8MM	M5x8MM	
9	H	DA/SA	NA	NA	NA	NA	NA	130	130	NA	NA	NA	NA	
10	J	DA/SA	80	80	80	80	80	80	80	130	130	130	130	
11	K	DA/SA	30	30	30	30	30	30	30	30	30	30	30	
12	L	DA/SA	11/14	11/14	11/14	14/17	14/17	17/22	22/27	22/27	22/27	36/46	36/46	
13	DEPTH M	DA/SA	12/16	12/16	12/16	16/19	16/19	19/24	24/29	24/29	24/29	38/48	38/48	
14	N	DA/SA	50xM6x9 (F05)				70xM8x12 (F07)			102xM10x15 (F10)			125xM12x18 (F12)	
15	P	DA/SA	70xM8x12 (F07)				102xM10x15 (F10)			125xM12x18 (F12)			165xM20x30 (F16)	
16	Q	DA/SA	NA	NA	NA	NA	NA	125xM12x18 (F12)	NA	NA	NA	NA	NA	

DETAILS OF FLAT HEAD ON REQUEST

17	R	DA/SA	11	11	11	14	17	22	22	22	27	36	36
18	S	DA/SA	14.1	14.1	14.1	18.1	22.2	28.2	28.2	28.2	36.2	48.2	48.2
19	DEPTH T	DA/SA	19	19	19	25	30	39	39	39	48	64	64

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WORKS

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