

E & P Series *Pneumatic Actuators*

up to 40,000 in/lbs Output Torque

Description

The Assured Automation E-Series pneumatic actuators offer a simple and cost effective solution for your valve automation needs. For use on quarter turn (90 degree) ball valves, plug valves, dampers, and resilient seated butterfly valves.

Cost Effective for OEM Applications



Performance Specifications

Temperature Range:

-4°F to +175°F

Supply Pressure:

Direct Acting: 20 to 120 PSI

Spring Return: 40 to 120 PSI

Torque Output:

up to 40,000 in-lbs.

(at 80 PSI supply pressure)

Service Life:

up to 1 Million Cycles

Mounting/Shaft:

ISO 5211/Female

Product Features

- Up to 1 Million Cycles
- Double Acting and Spring Return models
- Direct mounting to ball and butterfly valves
Multiple ISO drillings on each actuator
NAMUR DVI/DVE 3845, DIN 3337, ISO 5211
- Namur Solenoid and Limit Switch Mounting
- Removable drive insert for diamond or square config.
- Visual Position Indicator (Open/Closed)

Materials

Housing: Anodized aluminum with dual component polyurethane coating

Mounting/Shaft: Zinc plated steel

Accessories

Solenoids:

Namur Mount

Voltages (12-24VDC, 24-220VAC)

Nema4, Nema7, Intrinsically Safe

Limit Switches:

Mechanical, Proximity, Asi, Fieldbus

Visual Open Close Indication

Positioners:

Pneumatic (3-15psi control)

Electropneumatic (4-20mA control)

**See Reverse Side for Additional Details
and Ordering Information**

E & P Series Pneumatic Actuators

Ordering Information

Model Number: E -

Type: _____
D = Direct Acting
S = Spring Return (Fail Closed)

Size: (see torque chart) _____
12 **100** **950**
25 **200** **1600**
40 **350**
65 **600**

Spring Set: (spring return models only) _____
for size 12
2

for sizes 25 - 1600
3
4 (standard)
5
6

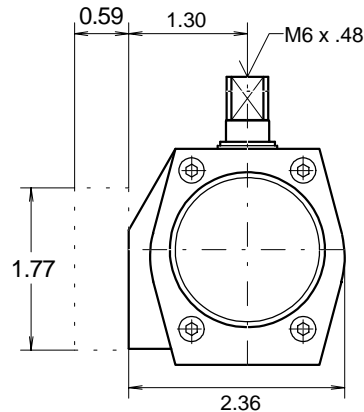
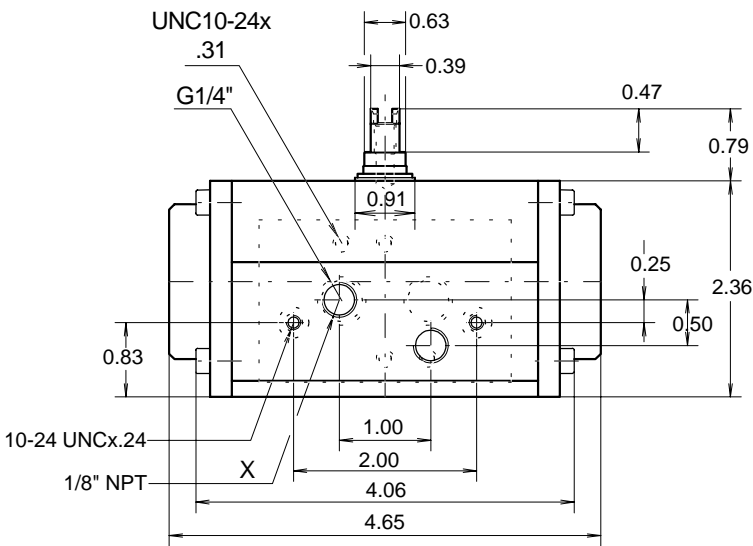
Model Number: P -

Type: _____
D = Direct Acting
S = Spring Return (Fail Closed)

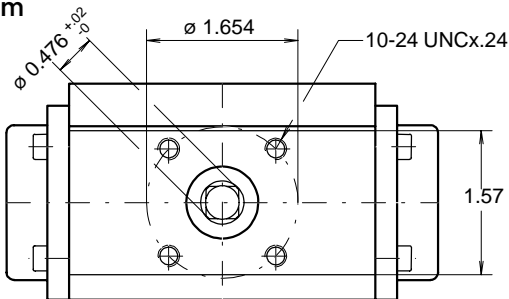
Size: (see torque chart) _____
2500
4000

Spring Set: (spring return models only) _____
8
10
12 (standard)
14

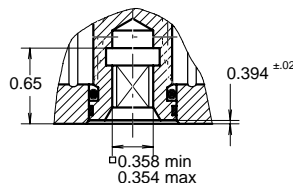
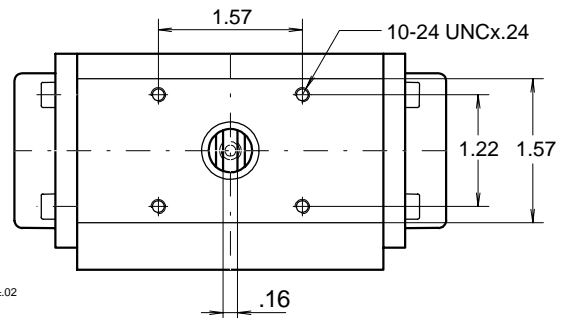
Dimensions: Size 12



Bottom



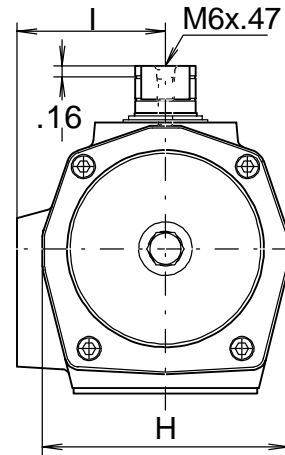
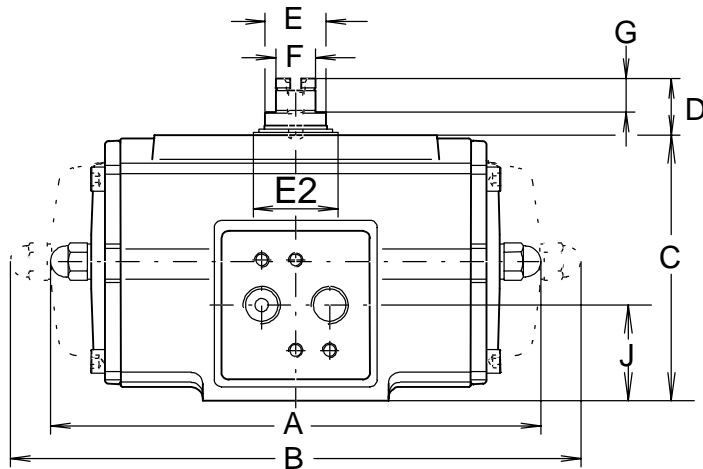
Top



Note: Dotted image represents optional NAMUR solenoid interface block

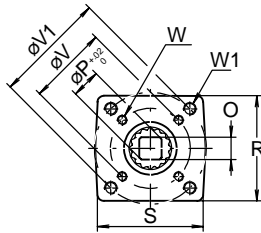
E & P Series Pneumatic Actuators

Dimensions: Sizes 25 to 4000

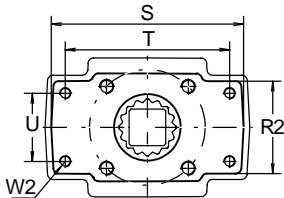


Flange and Square Drive (to ISO 5211)

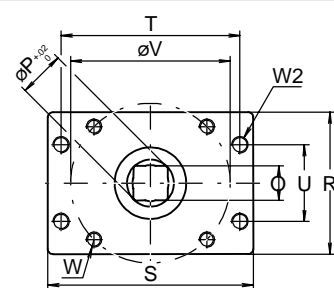
E25-E950



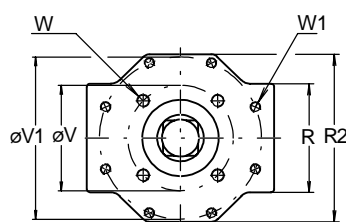
E1600



P2500

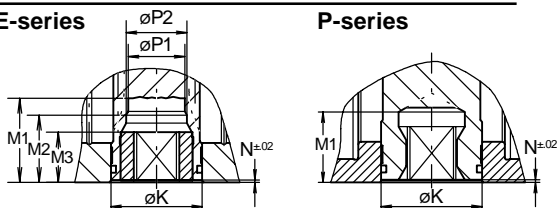


P4000



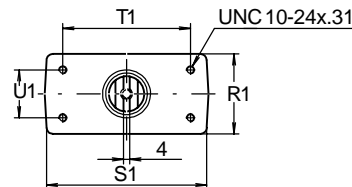
E-series

P-series

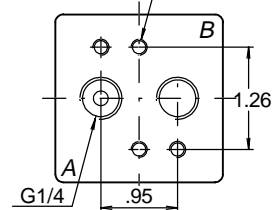


Top and Solenoid Flange (to VDE/VDI 3845 NAMUR)

Top



Solenoid Flange UNC 10-24x.31



Dim. in mm.	Actuators E-series									P-series	
	E 25	E 40	E 65	E100	E200	E 350	E600	E950	E1600	P2500	P4000
A DA	6.26	7.09	7.83	8.70	11.14	12.01	15.24	16.69	20.31	14.88	19.76
B SR	6.77	8.03	9.80	10.51	14.17	15.24	18.78	20.35	25.08	22.44	32.83
C	3.15	3.66	4.13	4.65	5.63	7.13	8.66	10.20	11.69	14.02	14.96
D	0.79	0.79	0.79	0.79	0.79	0.79	1.18	1.18	1.18	1.18	1.18
E	0.63	0.87	0.87	0.87	1.42	1.42	2.17	2.17	2.52	2.17	2.52
E2	0.91	1.18	1.18	1.18	1.77	1.77	2.56	2.56	2.95	2.56	3.15
F	0.39	0.55	0.55	0.55	0.75	0.75	1.42	1.42	1.42	1.42	1.42
G	0.47	0.47	0.47	0.47	0.47	0.47	0.39	0.39	0.39	0.39	0.39
H	2.91	3.39	3.86	4.25	5.04	6.81	8.15	9.09	10.43	13.78	14.96
I	1.81	2.09	2.26	2.48	2.87	3.71	4.45	4.96	5.59	7.28	7.87
J	1.26	1.32	1.54	1.59	1.99	2.85	3.33	4.15	4.74	7.01	7.48
K	0.94	1.30	1.30	1.50	2.17	2.17	2.68	2.95	3.74	3.35	4.72
M1	1.36	1.36	1.36	1.36	1.97	1.97	2.05	2.52	3.23	2.60	3.03
M2	-	-	-	1.06	1.46	1.46	-	-	-	-	-
M3	0.669	0.669	0.669	0.787	1.161	1.161	1.161	1.949	2.303	-	-
N	0.04	0.04	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.12	0.06
O max.	0.437	0.556	0.556	0.753	0.871	1.068	1.068	1.424	1.817	1.817	2.173
O min.	0.433	0.551	0.551	0.748	0.866	1.063	1.063	1.417	1.811	1.811	2.165
P	0.555	0.713	0.713	0.992	1.110	1.425	1.425	1.898	2.370	2.370	2.843
P1	0.555	0.713	0.831	0.909	1.303	1.303	1.437	1.909	2.382	-	-
P2	-	-	-	0.988	1.264	1.264	-	-	-	-	-
R	2.05	2.56	2.76	2.76	3.54	4.49	4.88	5.12	6.06	6.69	6.69
R1	1.97	1.97	1.97	2.36	2.36	2.36	3.54	3.54	4.92	6.30	6.30
R2	-	-	-	-	-	-	-	-	5.20	-	10.31
S	2.05	2.56	2.76	2.76	3.54	4.49	4.88	5.59	11.02	11.42	11.42
S1	3.94	3.94	3.94	3.94	3.94	3.94	6.69	6.69	8.27	9.65	9.65
T	-	-	-	-	-	-	-	-	9.236	9.236	-
T1	3.150	3.150	3.150	3.150	3.150	3.150	5.118	5.118	5.118	5.118	5.118
U	-	-	-	-	-	-	-	-	3.827	3.827	-
U1	1.181	1.181	1.181	1.181	1.181	1.181	1.181	1.181	1.181	1.181	1.181
V	-	1.969	1.969	1.969	2.756	2.756	4.016	4.016	6.496	6.496	6.496
V1	1.969	2.756	2.756	2.756	4.016	4.016	4.921	5.512	-	-	10.000
W	-	1/4"- 20x.39	1/4"- 20x.39	1/4"- 20x.39	5/16"- 18x.39	5/16"- 18x.39	3/8"- 16x.63	3/8"- 16x.63	3/4"- 10x1.14	3/4"- 10x1.14	3/4"- 10x1.14
W1	1/4"- 20x.39	5/16"- 18x.39	5/16"- 18x.39	5/16"- 18x.39	3/8"- 16x.63	3/8"- 16x.63	1/2"- 13x.79	5/8"- 11x.98	-	-	5/8"- 11x.98
W2	-	-	-	-	-	-	-	-	5/8"- 11x.98	5/8"- 11x.98	-

E & P Series Pneumatic Actuators

Torque Specifications - Spring Return

Actuator Model (springset)	Air Stroke Supply Air Pressure										Spring Stroke	
	40		60		80		100		120		Start	End
	Start	End	Start	End	Start	End	Start	End	Start	End		
ES12 (2)	-	-	48	23	80	55	112	87	143	119	64	41
ES25 (3)	49	8	107	66	166	126	225	185	284	243	94	58
(4)	-	-	85	31	144	90	202	149	261	208	125	78
(5)	-	-	-	-	121	54	180	113	239	172	156	98
(6)	-	-	-	-	99	18	157	77	216	136	188	117
ES40 (3)	90	15	201	126	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	407	255	351	220
ES65 (3)	129	10	297	178	466	347	634	515	802	683	279	175
(4)	-	-	230	72	398	240	566	408	735	576	372	234
(5)	-	-	-	-	331	133	499	301	667	469	465	292
(6)	-	-	-	-	264	26	432	195	601	363	558	351
ES100 (3)	211	43	459	293	709	542	958	790	1,206	1,039	388	242
(4)	-	-	366	143	615	392	863	641	1,112	889	516	323
(5)	-	-	-	-	522	244	771	492	1,019	741	646	403
(6)	-	-	-	-	429	95	678	344	927	593	775	484
ES200 (3)	448	73	994	620	1,539	1,165	2,085	1,711	2,630	2,256	868	543
(4)	-	-	786	287	1,332	833	1,878	1,378	2,423	1,924	1,157	723
(5)	-	-	-	-	1,124	500	1,670	1,045	2,216	1,592	1,447	904
(6)	-	-	-	-	916	167	1,462	713	2,008	1,259	1,736	1,085
ES350 (3)	727	96	1,675	1,044	2,623	1,991	3,571	2,939	4,519	3,887	1,537	988
(4)	-	-	1,297	454	2,245	1,403	3,192	2,351	4,140	3,299	2,049	1,316
(5)	-	-	-	-	1,867	813	2,815	1,762	3,762	2,710	2,561	1,645
(6)	-	-	-	-	1,488	225	2,436	1,173	3,384	2,121	3,074	1,975
ES600 (3)	1,298	193	2,908	1,804	4,520	3,415	6,131	5,026	7,742	6,637	2,584	1,623
(4)	-	-	2,287	813	3,898	2,425	5,509	4,036	7,120	5,647	3,447	2,165
(5)	-	-	-	-	3,276	1,435	4,887	3,046	6,498	4,656	4,308	2,706
(6)	-	-	-	-	2,654	444	4,265	2,055	5,876	3,666	5,170	3,247
ES950 (3)	1,986	305	4,391	2,709	6,796	5,114	9,200	7,519	11,605	9,924	3,844	2,381
(4)	-	-	3,478	1,237	5,883	3,641	8,289	6,046	10,694	8,451	5,126	3,175
(5)	-	-	-	-	4,972	2,168	7,376	4,573	9,781	6,978	6,407	3,968
(6)	-	-	-	-	4,059	696	6,464	3,100	8,869	5,505	7,688	4,762
ES1600 (3)	3,245	579	7,220	4,554	11,195	8,530	15,171	12,505	19,147	16,481	6,289	3,970
(4)	-	-	5,699	2,145	9,675	6,120	13,650	10,095	17,625	14,071	8,385	5,293
(5)	-	-	-	-	8,153	3,710	12,129	7,686	16,105	11,662	10,481	6,616
(6)	-	-	-	-	6,633	1,301	10,609	5,277	14,583	9,252	12,578	7,939
PS2500 (8)	5,251	1,781	11,245	7,775	17,239	13,769	23,233	19,763	29,227	25,758	9,351	5,868
(10)	-	-	9,615	5,277	15,609	11,272	21,603	17,266	27,597	23,260	11,689	7,335
(12)	-	-	7,985	2,780	13,979	8,774	19,973	14,768	25,967	20,763	14,026	8,803
(14)	-	-	-	-	12,349	6,277	18,343	12,271	24,337	18,265	16,364	10,270
PS4000 (8)	8,949	3,096	19,111	13,257	29,272	23,418	39,434	33,580	49,595	43,741	15,780	9,905
(10)	-	-	16,359	9,042	26,521	19,204	36,682	29,365	46,844	39,527	19,725	12,381
(12)	-	-	13,608	4,827	23,770	14,989	33,931	25,150	44,092	35,312	23,670	14,857
(14)	-	-	-	-	21,018	10,774	31,180	20,936	41,341	31,097	27,615	17,333

Torque Specifications - Direct Acting

Actuator Model	Air Stroke Supply Air Pressure (psi)												
	30	35	40	45	50	55	60	70	75	80	90	100	120
ED12	43.9	51.4	58.9	66.4	73.9	81.4	88.9	104	111	119	134	149	179
ED25	81.4	95.3	109	123	137	151	165	193	206	220	248	276	332
ED40	153	179	205	231	257	283	309	361	387	413	466	518	622
ED65	233	272	312	352	392	431	471	551	590	630	709	789	948
ED100	344	402	461	520	578	637	696	813	872	930	1048	1165	1400
ED200	754	883	1,011	1,140	1,269	1,398	1,527	1,784	1,913	2,042	1,199	1,557	3,072
ED350	1,310	1,534	1,757	1,981	2,205	2,428	2,652	3,100	3,323	3,547	3,994	4,442	5,337
ED600	2,226	2,606	2,986	3,366	3,747	4,127	4,507	5,267	5,647	6,028	6,788	7,548	9,069
ED950	3,323	3,890	4,458	5,025	5,593	6,160	6,728	7,862	8,430	8,997	10,132	11,267	13,537
ED1600	5,493	6,431	7,369	8,307	9,245	10,183	11,121	12,998	13,936	14,874	16,750	18,626	22,379
PD2500	8,774	10,273	11,825	13,270	14,768	16,267	17,847	20,858	22,363	23,869	26,880	29,891	35,912
PD4000	14,874	17,414	19,962	22,495	25,035	27,576	30,127	35,210	37,751	40,293	45,375	50,458	60,623

Document: R Series Electric Actuators - Revised 07.07.05



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