

# PNEUMATIC AND ELECTRIC ACTUATORS

## Actuators for Valve and Damper Automation



ACT-SR03



ACT-TD01-110VAC



ACT-MI02-110VAC

The W.E. Anderson **Series ACT Actuators** are available in either pneumatic or electric models. The wide range of torques and voltages means there is an actuator for almost any application. The standard ISO 5211 mounting configuration makes installation to any valve or damper quick and simple.

W.E. Anderson pneumatic ACT models are a compact rack-and-pinion design with a symmetrical structure that ensures fast and steady action, high precision and high output power. The corrosion resistant anodized aluminum body is designed to withstand the harsh and abusive industrial environments and provide reliable service. We offer double acting and spring return models in a variety of sizes to fit any application.

W.E. Anderson electric ACT models are available in two-position or modulating configurations and NEMA 4X or NEMA 7 rated enclosures. All electric actuators utilize a high grade powder coated aluminum enclosure with visual indicators. The two-position models come standard with two auxiliary switches, and modulating models offer an output for position monitoring. Certain models are equipped with manual overrides allowing the operator to cycle the valve manually for installation or maintenance checks.

### BENEFITS/FEATURES

- ISO 5211 Mounting configuration for easy installation
- Pneumatic actuators offer corrosion resistance anodized finish
- NAMUR mounting configuration on pneumatic actuators
- Two-position electric actuators include auxiliary limit switches
- Modulating electric actuators offer an output for position monitoring

### APPLICATIONS

- Designed for quarter turn valve or damper control

### SPECIFICATIONS

#### Pneumatic "DA" and "SR" Series

**Type:** DA series is double-acting and SR series is spring return (rack and pinion).  
**Normal Supply Pressure:** DA: 40 to 115 psi (2.7 to 7.9 bar); SR: 80 psi (5.5 bar).  
**Maximum Supply Pressure:** 120 psi (8.6 bar).

**Air Connections:** DA01: 1/8" female NPT; DA02 to DA14: 1/4" female NPT; SR02 to SR14: 1/4" female NPT.

**Housing Material:** Anodized aluminum body and epoxy coated aluminum end caps.

**Temperature Limits:** -40 to 176°F (-40 to 80°C).

**Accessory Mounting:** NAMUR standard.

#### Electric "TD" and "MD" Series

**Power Requirements:** 110 VAC, 220 VAC, 24 VAC or 24 VDC (MD models not available in 24 VDC).

**Power Consumption:** See manual.

**Cycle Time (per 90°):** TD01: 4 s; MD01: 10 s; TD02 and MD02: 20 s; TD03 and MD03: 30 s; TD04 and MD04: 30 s; TD05 and MD05: 30 s; TD06 and MD06: 45 s; TD07 and MD07: 45 s.

**Duty Rating:** 85%.

**Enclosure Rating:** NEMA 4X (IP67).

**Housing Material:** Powder coated aluminum.

**Temperature Limits:** -22 to 140°F (-30 to 60°C).

**Electrical Connection:** 1/2" female NPT.

**Modulating Input:** 4-20 mA.

**Standard Features:** Manual override, position indicator, and TD models come with two limit switches.

#### Electric "TI" and "MI" Series

**Power Requirements:** 110 VAC, 220 VAC, 24 VAC or 24 VDC.

**Power Consumption:** See instruction manual.

**Cycle Time (per 90°):** See instruction manual.

**Duty Rating:** See instruction manual.

**Enclosure Rating:** NEMA 7.

**Housing Material:** Powder coated aluminum.

**Temperature Limits:** -40 to 140°F (-40 to 60°C).

**Electrical Connection:** 1/2" female NPT.

**Modulating Input:** 4-20 mA.

**Standard Features:** Position indicator and two limit switches.

### MODEL CHART

Pneumatic Model	Description	Electric Model	Description
ACT-DA01	Double acting pneumatic actuator, 98 in-lb	ACT-TD01-110VAC	Electric two-position, 177 in-lb, 110 VAC
ACT-DA02	Double acting pneumatic actuator, 207 in-lb	ACT-TD02-110VAC	Electric two-position, 442 in-lb, 110 VAC
ACT-DA03	Double acting pneumatic actuator, 365 in-lb	ACT-TD03-110VAC	Electric two-position, 885 in-lb, 110 VAC
ACT-DA04	Double acting pneumatic actuator, 603 in-lb	ACT-TD04-110VAC	Electric two-position, 1770 in-lb, 110 VAC
ACT-DA05	Double acting pneumatic actuator, 792 in-lb	ACT-TD05-110VAC	Electric two-position, 3540 in-lb, 110 VAC
ACT-DA06	Double acting pneumatic actuator, 1135 in-lb	ACT-TD06-110VAC	Electric two-position, 8850 in-lb, 110 VAC
ACT-DA07	Double acting pneumatic actuator, 1690 in-lb	ACT-MD01-110VAC	Electric modulating, 265 in-lb, 110 VAC
ACT-DA08	Double acting pneumatic actuator, 2993 in-lb	ACT-MD02-110VAC	Electric modulating, 442 in-lb, 110 VAC
ACT-DA09	Double acting pneumatic actuator, 4506 in-lb	ACT-MD03-110VAC	Electric modulating, 885 in-lb, 110 VAC
ACT-DA10	Double acting pneumatic actuator, 6866 in-lb	ACT-MD04-110VAC	Electric modulating, 1770 in-lb, 110 VAC
ACT-DA11	Double acting pneumatic actuator, 11065 in-lb	ACT-MD05-110VAC	Electric modulating, 3540 in-lb, 110 VAC
ACT-DA12	Double acting pneumatic actuator, 15207 in-lb	ACT-MD06-110VAC	Electric modulating, 8850 in-lb, 110 VAC
ACT-DA13	Double acting pneumatic actuator, 23834 in-lb	ACT-TI01-110VAC	EXP electric two-position, 100 in-lb, 110 VAC
ACT-DA14	Double acting pneumatic actuator, 33516 in-lb	ACT-TI02-110VAC	EXP electric two-position, 200 in-lb, 110 VAC
ACT-SR02	Spring return pneumatic actuator, 95 in-lb	ACT-TI03-110VAC	EXP electric two-position, 300 in-lb, 110 VAC
ACT-SR03	Spring return pneumatic actuator, 176 in-lb	ACT-TI04-110VAC	EXP electric two-position, 400 in-lb, 110 VAC
ACT-SR04	Spring return pneumatic actuator, 274 in-lb	ACT-TI05-110VAC	EXP electric two-position, 675 in-lb, 110 VAC
ACT-SR05	Spring return pneumatic actuator, 381 in-lb	ACT-TI06-110VAC	EXP electric two-position, 1000 in-lb, 110 VAC
ACT-SR06	Spring return pneumatic actuator, 536 in-lb	ACT-TI07-110VAC	EXP electric two-position, 1500 in-lb, 110 VAC
ACT-SR07	Spring return pneumatic actuator, 815 in-lb	ACT-TI08-110VAC	EXP electric two-position, 2000 in-lb, 110 VAC
ACT-SR08	Spring return pneumatic actuator, 1411 in-lb	ACT-TI09-110VAC	EXP electric two-position, 3840 in-lb, 110 VAC
ACT-SR09	Spring return pneumatic actuator, 2460 in-lb	ACT-TI10-110VAC	EXP electric two-position, 5000 in-lb, 110 VAC
ACT-SR10	Spring return pneumatic actuator, 3733 in-lb	ACT-TI11-110VAC	EXP electric two-position, 7020 in-lb, 110 VAC
ACT-SR11	Spring return pneumatic actuator, 6166 in-lb	ACT-MI01-110VAC	EXP electric modulating, 100 in-lb, 110 VAC
ACT-SR12	Spring return pneumatic actuator, 5253 in-lb	ACT-MI02-110VAC	EXP electric modulating, 200 in-lb, 110 VAC
ACT-SR13	Spring return pneumatic actuator, 7923 in-lb	ACT-MI03-110VAC	EXP electric modulating, 300 in-lb, 110 VAC
ACT-SR14	Spring return pneumatic actuator, 9546 in-lb	ACT-MI04-110VAC	EXP electric modulating, 400 in-lb, 110 VAC
		ACT-MI05-110VAC	EXP electric modulating, 675 in-lb, 110 VAC
		ACT-MI06-110VAC	EXP electric modulating, 1000 in-lb, 110 VAC
		ACT-MI07-110VAC	EXP electric modulating, 1500 in-lb, 110 VAC
		ACT-MI08-110VAC	EXP electric modulating, 2000 in-lb, 110 VAC
		ACT-MI09-110VAC	EXP electric modulating, 3840 in-lb, 110 VAC
		ACT-MI10-110VAC	EXP electric modulating, 5000 in-lb, 110 VAC
		ACT-MI11-110VAC	EXP electric modulating, 7020 in-lb, 110 VAC

**Note:** Optional voltages available for the electric actuators. Change the -110 VAC to -220 VAC, 24 VDC or 24 VAC. The ACT-MD is not available with 24 VAC.

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MODEL CHART - DOUBLE ACTING ACTUATOR TORQUE									
Model	Double Acting Pneumatic Actuator Output Torque (in-lb)								
	Air Pressure								
	40 psi	50 psi	60 psi	70 psi	80 psi	90 psi	100 psi	110 psi	115 psi
ACT-DA01	49	61	74	86	98	110	123	135	142
ACT-DA02	104	130	155	181	207	233	259	285	300
ACT-DA03	182	228	274	319	365	411	456	502	529
ACT-DA04	302	377	453	528	603	679	754	830	875
ACT-DA05	396	495	594	693	792	891	990	1089	1148
ACT-DA06	567	709	851	993	1135	1277	1419	1561	1646
ACT-DA07	845	1056	1267	1478	1690	1901	2112	2323	2450
ACT-DA08	1497	1871	2245	2619	2993	3367	3742	4116	4340
ACT-DA09	2253	2816	3379	3942	4506	5069	5632	6195	6533
ACT-DA10	3433	4291	5149	6008	6866	7724	8582	9440	9955
ACT-DA11	5532	6916	8299	9682	11065	12448	13831	15214	16044
ACT-DA12	7603	9504	11405	13306	15207	17107	19008	20909	22050
ACT-DA13	11917	14896	17875	20855	23834	26813	29792	32772	34559
ACT-DA14	16758	20948	25137	29327	33516	37706	41896	46085	48599

ACCESSORIES	
Models	Description
SN-3A	3/2 NAMUR 110 VAC solenoid
SN-5A	5/2 NAMUR 110 VAC solenoid
VB-01	Volume booster

MODEL CHART - SPRING RETURN ACTUATOR TORQUE																			
Model	Spring Sets	Torque List of Spring Return Pneumatic Actuator (in-lb)																	
		Spring Torque		Air Pressure				70 psi		80 psi		90 psi		100 psi		110 psi		115 psi	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
		ACT-SR02	10	69.9	95.5	111.4	85.8	137.3	111.7	163.2	137.6	189.1	163.5	215	189.4	230.6	204.9		
ACT-SR03	10	120	176	199	143	245	189	291	235	336	280	382	326	409	353				
ACT-SR04	10	180	274	348	254	424	330	499	405	575	481	650	556	695	601				
ACT-SR05	10	263	381	430	312	529	411	628	510	727	609	826	708	885	767				
ACT-SR06	10	385	536	608	458	750	599	891	741	1033	883	1175	1025	1260	1110				
ACT-SR07	10	695	815	783	663	994	874	1206	1085	1417	1297	1628	1508	1755	1635				
ACT-SR08	10	937	1411	1682	1208	2056	1583	2430	1957	2804	2331	3178	2705	3403	2930				
ACT-SR09	10	1640	2460	2303	1483	2866	2046	3429	2609	3992	3173	4556	3736	4894	4074				
ACT-SR10	10	2529	3733	3479	2274	4337	3133	5195	3991	6053	4849	6911	5707	7426	6222				
ACT-SR11	10	4104	6166	5578	3516	6961	4899	8344	6282	9727	7665	11111	9048	11940	9878				
ACT-SR12	10	5253	8258	8052	5048	9953	6948	11854	8849	13755	10750	15656	12651	16796	13791				
ACT-SR13	10	7923	14103	12932	6752	15911	9731	18890	12710	21869	15690	24849	18669	26636	20456				
ACT-SR14	10	9546	18350	19781	10977	23970	15167	28160	19357	32349	23546	36539	27736	39053	30249				