

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.

FEATURES/BENEFITS

- 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 to 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 to 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.



SERIES ACT | W.E. ANDERSON™ BY DWYER

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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 |
| AFR4 | Air filter regulator 0 to 120 psi |
| VB-01 | Volume booster |
| SN-5A | 5/2 NAMUR 110 VAC solenoid |
| SN-3A | 3/2 NAMUR 110 VAC solenoid |

| 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° |
| 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 |