

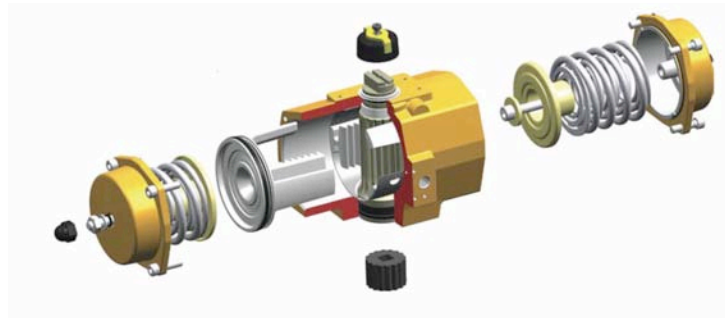
AUTOMATION PNEUMATIC ACTUATORS

Pneumatic Actuators

Apollo® Rack & Pinion

Designed and manufactured for the ultimate in durability and reliability, the new Apollo® Pneumatic Rack & Pinion Actuators provide outstanding service life.

Apollo Actuation's new Rack & Pinion actuator reintroduces the replaceable insert drive adapters in all but the largest models. Many units retain dual "F" series bolt patterns and this combination of features will facilitate direct mounting of several valve styles.



FEATURES

- **Cast Aluminum Body**
Yellow chromate coated
polyester powder coat finish
- **Die Cast Aluminum End Caps**
Yellow chromate coated
polyester powder coat finish
- **Die Cast Aluminum Pistons**
Yellow chromate coated
- **Aluminum Alloy Pinion**
7075-T6 hard-coat anodized finish
- **Drive Inserts**
Extruded aluminum
Hard-coat anodized finish
- **Preloaded Concentric Springs**
Deltatone® coated
- **Piston Guides**
Molybdenum disulfide filled
polyamide
- **Bushings**
Polyoxymethylene (POM)
- **O-Ring Seals**
Standard Temp. (-4°F to 180°F): Buna-N
High Temp. (-4°F to 250°F): Fluorocarbon
Low Temp. (-40°F to 180°F): Silicone
- **Capscrews, Nuts & Other Hardware**
304 stainless steel

APOLLO® PNEUMATIC ACTUATOR NUMBERING SYSTEM

AX - **XXXX** - **X** - **XX** - **X** - **X**

Action	Size	Seal Option	Spring Set	Limit Stop	Insert
D - Double Action	0012*	N - Nitrile	A-00 (DA)	0 - None** (Std. on sizes 0012, 2500, & 4000)	A - STD
S - Spring Return	0025	(Normal temp range, -4° to 175°F)	01	1 - Single Adjustable Limit Stop (For sizes 0025 thru 1600 only)	B - Without
K - Kit	0040	H - Fluorocarbon (High temp range, -4° to 250°F)	02	2 - Dual Adjustable Limit Stops (For sizes 0025 thru 1600 only)	
	0065	L - Silicone (Low temp range, -40° to 175°F)	03		
	0100		04		
	0150		05		
	0200		06		
	0350		07		
	0600		08		
	0950		10		
	1600		12		
	2500*		14		
	4000*				

* Units with no adapters option

** Optional double stroke adjustment plate is available for 2500 & 4000 (see price list) **Notes:** Add suffix "F" for fail open units

Automation Product AE Series

Apollo® AE Series Electric Actuators

Ruggedly built and designed for easy installation, new Apollo® AE Series electric actuators deliver the most standard features and performance in their class – for a surprisingly low price. Five output torques, one housing 200, 400, 600, 800 and 1,000 inch-pounds.

FEATURES

- Long service life
- Newly developed anodized die cast aluminum housing
- Fiberglass reinforced nylon cover with UV stabilizers resists corrosion
- Nitrile gasket and seals cover all penetration points in housing and cover
- Precision cut and heat treated alloy spur gears
- Permanently lubricated enclosed gear train
- Stainless steel push-and-turn manual override shaft, position indicator shaft and female output
- ISO 5211 F07 drive output reduces inventory of mounting kits
- 115 AC, 220 AC and 24 AC -- All AC models feature a 25% duty cycle below 100° F
- 12 and 24 DC -- All DC voltage models provide 100% duty cycle for 1 hour after which DC motor is reduced to 80% duty cycle
- Operates from -40° F (when equipped with heater and thermostat) to 150° F
- Actuators can be ordered with one, two or three additional limit switches
- For low temperatures: actuators can be equipped with a thermostatically controlled heater element
- Motor brake is necessary when mounting actuator to a butterfly valve



AE	-	X	-	X	XXX
Torque		Voltage		Options	
200		1 – 115 vac		0 – Standard	
400		2 – 24 vac		A – One extra switch & cam	
600		3 – 220 vac		B – Two extra switches & cams	
800		4 – 12 vdc		C – Three extra switches and cams	
1000		5 – 24 vdc		D – Heater and Thermostat (15 watt)	
Enter all digits of Torque Value				F – Motor Brake (115 VAC & 24 VAC Only)	
				P - Positioner 4-20 mA	
				T - Transmitter 4-20 mA	

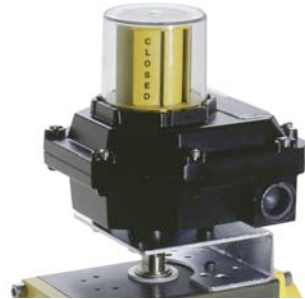
AUTOMATION ACCESSORY PRODUCTS

Actuator Accessories

Valve Position Monitors,
Solenoids, and Positioners

VALVE POSITION MONITORS

Here's the ultimate in valve monitoring: Position monitors feature a high visibility, color-coded indicator to display valve position. All monitors are designed to correspond to the latest NAMUR standard for actuator/position monitoring units. Plated steel or stainless steel mounting kits are available to provide a pre-engineered mounting solution for maximizing position monitor performance and direct mounting to actuators. Other brands also available. See our Actuator Catalog for details.



SOLENOIDS

Apollo® actuators can be supplied with solenoids manufactured by AVC (Automatic Valve Company). Our 3/4 way, field convertible, direct mount (NAMUR pattern) solenoid valves feature a variety of interchangeable integrated molded coils. They're compatible with both spring return and double acting actuators.



POSITIONERS

Apollo valve positioners are excellent tools for increasing the gain of your valve package, often reducing your actuator size due to your increased ability to accurately control higher air deliveries, and the flexibility to add options and accessories to complete your control package's performance.

Their simple design makes PMV positioners (shown here) easy to understand, calibrate and repair. Rugged construction provides operation in a variety of tough applications. Compact size minimizes space requirements. A complete package means the user can select the right positioner for his application. A bright indicator makes it easy for operators to visually check the valve position. Spool valve design requires very little maintenance. The electro-pneumatic unit eliminates the need for an extra product and additional connections. PMV positioners are proven products recognized for providing years of reliable service. Other brands are also available from your Apollo distributor.



Apollo offers both pneumatic and electro-pneumatic positioners as standard. Pneumatic positioners may be used on either double acting or spring return actuators. The anodized aluminum housing provides excellent product integrity and good corrosion resistance. Options include special coatings, stainless steel housings and a variety of accessory items which can help you meet your most demanding control applications. See our Actuator Catalog for complete details.