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# ACTUATION

## "Apollo" PNEUMATIC RACK & PINION ACTUATORS

Designed and manufactured for the ultimate durability and reliability, Apollo pneumatic rack & pinion actuators provide outstanding service life.

Apollo rack & pinion actuators have **replaceable insert drive adapters** in all but the largest models, and many units have dual ISO 5211 "F" series bolt patterns. The numerous actuator drive and bolt pattern combinations allow **direct mounting of several valve styles**.



#### FEATURES

- Body: Cast aluminum, yellow chromate powder coat finish
- End Caps: Die cast aluminum, yellow chromate powder coat finish
- Pistons: Hard anodized die cast aluminum
- Pinion: Aluminum alloy, hard coat anodized finish
- Drive Inserts: Extruded aluminum, hard-coat anodized finish
- Preloaded Concentric Springs: Spring steel, electrophoretic finish

#### BENEFITS

- Compact rack & pinion design
- Designed for use on a variety of valve types: Ball Valves, Butterfly Valves, Plug Valves
- Applicable to damper and door openers
- Both double-acting and spring-return units
- Double-acting torque outputs from 220 to 6028 in-lb with an 80 psi air supply
- Removable/replaceable drive inserts
- Pre-loaded spring assemblies

- Bushings: Polyoxymethylene (POM)
- O-Ring Seals:
- Standard Temp. (-4° to 180° F): Buna-N High Temp. (-4° to 250° F): Fluorocarbon Low Temp. (-40° to 180° F): Silicone
- Fasteners: Stainless or alloy steel, Delta®-Tone coated
- ISO 5211 valve mounting
- NAMUR (VDI/VDE 3845) accessory mounts
- ATEX classification II, 2 GD, zones 1 or 2 (gases) and 21 or 22 (dust)
- Anti-blowout pinion design
- Maximum pressure rating: 116 psig (8 bar)
- Compatible media: clean, dry air, filtered non-corrosive gas or light hydraulic oil
- Pre-lubricated for the life of the actuator
- Chromate corrosion protection on all aluminum components
- Each unit is serialized
- 5 Year "Apollo®" warranty

## "Apollo" ELECTRIC ACTUATORS

Designed to be rugged and easily installed, Apollo AE Series electric actuators deliver the most desirable features and performance in their class. All sizes now CSA listed as standard\*.

#### FIVE OUTPUT TORQUES, ONE HOUSING

• Torque Values: 200, 400, 600, 800 and 1,000 in-lb

#### • Housing: Anodized die cast aluminum

- Long service life
- Fiberglass reinforced nylon cover 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
- NEMA 4, 4X
- 5 Year Apollo warranty

#### EASY TO USE

- Two separate 1/2" NPT conduit entrances for easier wiring and signal separation
- 12-position pre-wired terminal strip includes standard connections for remote open/closed position indicators; lots of room for wiring options
- Unrestricted mounting orientation
- Built-in thermal overload protection in all AC motor actuators
- Limit switches have an 11 amp rating at 115 VAC
- High visibility valve position indicator standard on all models

#### MANY STANDARD FEATURES

- 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 models feature a 25% duty cycle below 100°F (24AC - 20% 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.
- Reversible rotation

#### BROAD TEMPERATURE RANGE

- Operates from -40  $^{\circ}\text{F}$  (when equipped with 15 watt heater and thermostat) to 150  $^{\circ}\text{F}$ 

#### AVAILABLE OPTIONS

- 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



### NAMUR MOUNT SOLENOID

WITH TRANSITION PLATE



**OSHA** LOCKOUT DEVICE



Apollo Actuation

**STONEL QUARTZ** LIMIT SWITCHES



VRC POSITIONERS



**PROXIMITY VALVE POSITION** MONITORING SYSTEMS



MONITEUR LIMIT SWITCHES



**PMV** POSITIONERS



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Apollo Actuator Wizard HELPING YOU TO FIND THE BEST ACTUATOR FOR YOUR NEEDS

**ACTUATION** W I Z A R D

Helping you to find the best actuator assembly for your needs based on valve type, media conditions and actuator requirements.

actuatorwizard.apollovalves.com



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