

# ACTUATORS



## AUTO SEAL DIAPHRAGM VALVE ACTUATORS AND INSTRUMENTATION



### Technical Data

#### Operating Ranges

Temperatures .....-40°F to +180°F;  
-40°C to +82°C

Operating Pressure .....3-15, 6-30 & 20-60 PSI

Provides Leak Tight Sealing on Valve for Pressures up to  
500 PSI under the Valve Seat

#### Materials of Construction

##### Diaphragm Housing

36 & 60 sq. in. ....Pressed Steel Casing

140 sq. in. ....Cast Aluminum Casing

Yoke .....Ductile Iron

Diaphragm .....Buna N and Dacron®

Diaphragm Bolting .....Stainless Steel

#### Tests

Actuator Diaphragm .....1,000,000 plus cycles

### Features

- Fail Closed or Fail Open, Field Reversible
- Corrosion Resistant Paint with Stainless Steel Bolts & Nyloc Nuts
- Compact Design
- Completely Field Serviceable
- Larger Actuators, Piston Type and Specials on Request

### Options

- MVP Pneumatic Valve Positioner
- I/P Positioners and Transducers
- Integrated Limit Switches
- Air Filter Regulators
- Solenoid Valves and Gauges

## Surpassing All Others in Quality...

The Compact AutoSeal Actuator offers you Greater Performance at a Competitive Price with all the Features.

### INTRODUCING

A leader in quality cryogenic valves, CPC-CRYOLAB takes another step forward in its next generation of quality valve components: The AutoSeal valve actuator.

### BUILT IN EXTRA FEATURES

Featuring a compact, efficient design, the AutoSeal provides greater shutoff force and performance than most comparable models, yet is economically priced. Special features which make this actuator innovative are the multiple spring ranges that minimize actuator sizes, molded rolling diaphragm and the unique corrosion resistant stainless steel trim. You can select multiple working pressures and spring ranges without increasing the diaphragm casing size or weight loads.

### REDUCED SERVICE and MAINTENANCE COST

The 36 and 60 square inch actuators are field reversible. Using the same parts, you can quickly change from fail open to fail closed. In addition, interchangeable actuator sizes are available to meet varying operating conditions. Long service life is provided through closely guided low friction internal parts, corrosion resistant materials and other special design features.

### FAST DELIVERY

Standard AutoSeal actuators are stocked and ready for fast delivery from our world-wide distribution network or direct from the factory.

### A WIDE RANGE OF USES

- Process systems for the industrial gas, chemical, petrochemical, pharmaceutical, aerospace ground support and marine industry
- Tanks, trailers and ISO transport containers
- Packaged systems such as heat exchangers, purifiers, vaporizers and skidded equipment
- Alternative fuel systems for the automotive and transportation industry
- Anywhere liquids or gases are being used and controlled

### INSTALLATION

The AutoSeal line of diaphragm actuators installs easily onto the top actuator adapter flange. A yoke lock nut is supplied that threads down for a positive fit with full 360-degree positioning. The stem connection is simplified with a threaded adapter that is adjustable to many different stem lengths. Several size yokes are available to choose from with custom sizes available from the factory. An accessory mounting bracket is available when instrumentation hardware is ordered separately for field installation.

### INSTRUMENTATION OPTIONS

The AutoSeal line of actuators is well supported with a complete line of positioning and regulating hardware. The accessories can be field installed or factory equipped at time of order. Your ability to choose the process signals, to meet the design requirement, is easily done through the full range of AutoSeal accessories. The actuator yoke has threaded mounting holes and the mounting bracket is adjustable for all size valves. Complete technical bulletins are available for all accessories describing the mechanical, electrical and mounting of the hardware.

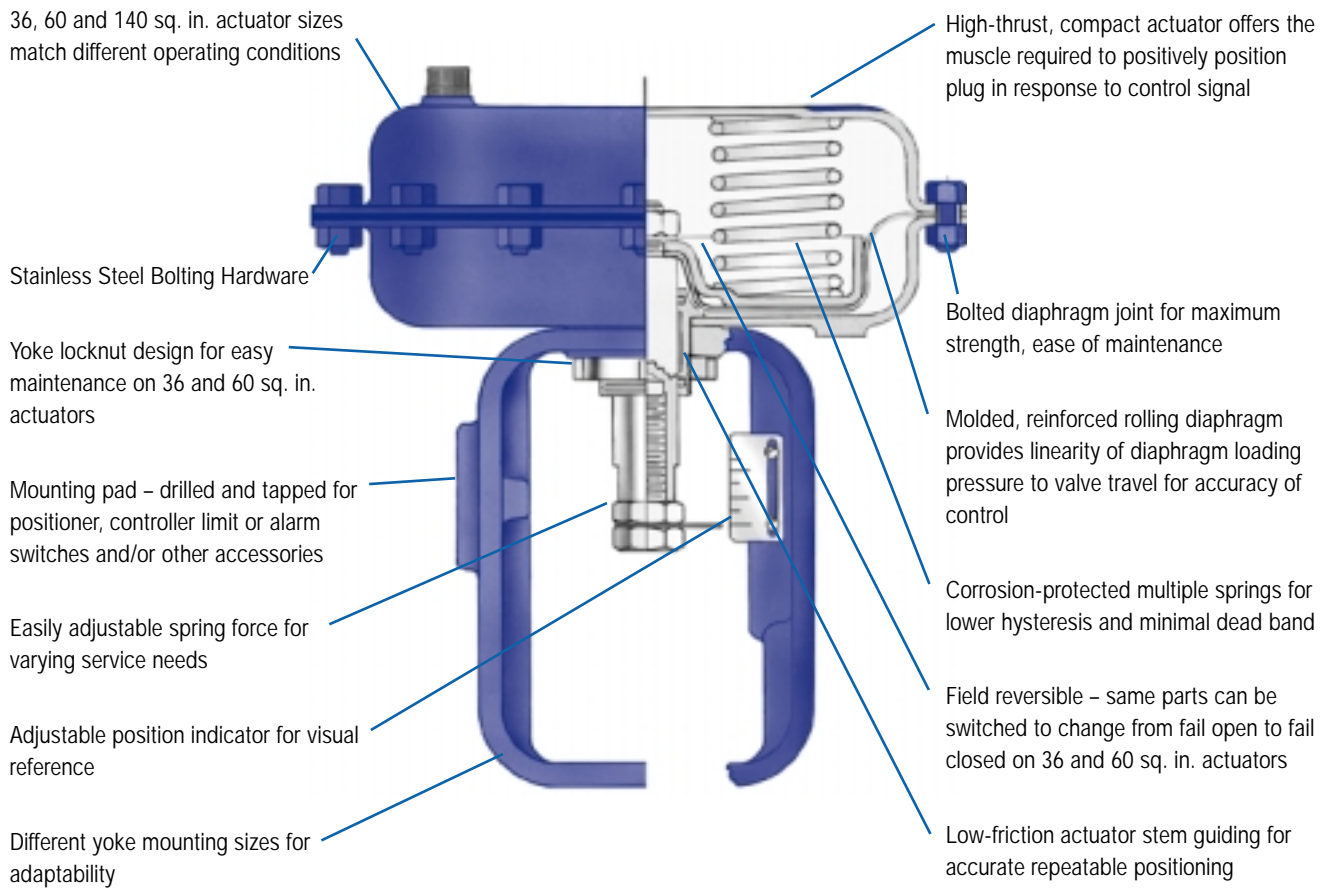
Standard NEMA 4 and NEMA 7 electrical components with AC and DC voltages and different current ranges are available and meet United States, Canadian and British electrical standards. Consult factory for your particular needs and special applications.

### AVAILABLE ACCESSORIES

- Pneumatic positioners
- Positioners with I/P integrated into housing
- I/P and E/P Transducers
- Limit switches integrated into positioner's housing
- Preset or adjustable regulators, stainless steel optional
- Single or multi gauge blocks for visual signals
- Solenoid valves – brass or stainless steel optional
- LVDT transmitters

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## Important Advantages



### SIGNAL RANGES AND WEIGHTS

Actuator Size	Valve Sizes							Actuator Weight
	1/2"	3/4"	1"	1-1/2"	2"	3"	4"	
36 sq. in.	3-15	3-15	3-15	3-15	-	-	-	11 lbs.
	6-30	6-30	6-30	6-30	6-30	-	-	
	20-60	20-60	20-60	20-60	20-60	20-60	-	
60 sq. in.	-	-	3-15	3-15	3-15	-	-	24 lbs.
	-	-	6-30	6-30	6-30	6-30	-	
	-	-	20-60	20-60	20-60	20-60	20-60	
140 sq. in.	-	-	-	-	3-15	3-15	3-15	58 lbs.
	-	-	-	-	6-30	6-30	6-30	
	-	-	-	-	20-60	20-60	20-60	

Spring ranges are determined by maximum allowable working pressure of valve and direction of flow. Please consult your Distributor or the factory, regarding your exact requirements.

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## How To Order

FWAA 36 1 C A S X

### BASIC MODEL CALL OUT

AutoSeal Actuator

### DIAPHRAGM SIZE

- 36 - 36 sq. in.
- 60 - 60 sq. in.
- 14 - 140 sq. in.

### YOKE HOLE SIZE

- 1 - 1-1/4"
- 2 - 2-1/8"
- 0 - 2-1/4"

### FAIL POSITION

- C - Closed
- O - Open

### OPTIONS

- X - Actuator Only
- H - Instrumentation Mounted on Actuator (Specify)

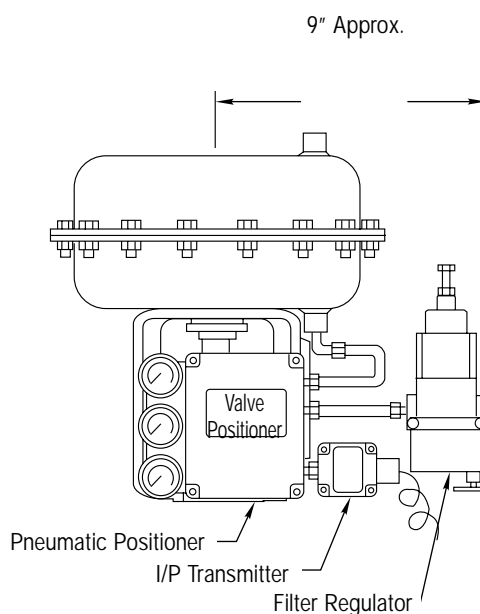
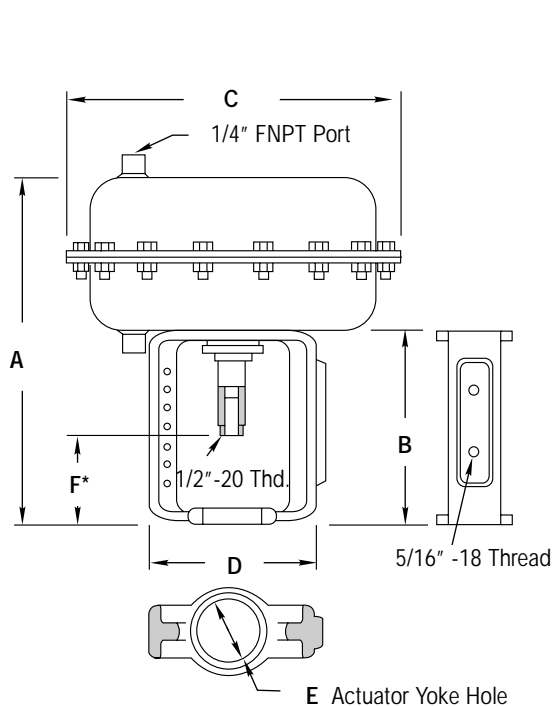
### SPRING ARRANGEMENT

- S - Single Spring Set
- N - Nested Spring Set

### SPRING RANGE

- A - 3 to 15 PSI
- B - 6 to 30 PSI
- C - 20 to 60 PSI

## Dimensions



Instrumentation shown for reference only. NIS

### ACTUATOR DIMENSIONS

AutoSeal Actuator	Weight (lbs.)	A	B	C	D	E	Fail Open F*	Fail Closed F*
36 sq. in.	11	9-3/4"	6-1/2"	9-1/4"	5-11/16"	1-1/4"—2-1/8"	4-1/2"	3-5/8"
60 sq. in.	24	11-3/4"	6-1/2"	11-3/4"	5-11/16"	1-1/4"—2-1/8"	4-5/8"	3"
140 sq. in.	58	21-15/16"	12-3/8"	16-1/2"	5-1/4"	2-1/4"	8"	5-1/4"

Yokes with 1-1/4" and 2-1/4" diameter, yoke hole has only one 5/16" -18 side mounting hole.