

## Product Specification for 21 series Actuator

**Actuator Type: Series 21 Rack & Pinion actuator-Double acting and spring return**

### Dual Rack and Pinion Design:

- Dual rack and pinion design offers double acting and fail safe operations in same body. Reverse rotation can be accomplished by simply inverting the pistons.
- Wide actuator base design option can be adapted to mount valve designs requiring wider than EN ISO 5211 drilling.

### Alloy Steel Shaft:

- High strength alloy steel shaft with electro-less nickel plating protection for maximum wear and corrosion resistance.

### Shaft Insert:

- Unique output shaft insert can be selected from a variety of standard sizes, including double D, ISO square, and round and keyed, or can be custom designed to fit any output shaft configuration.

### Extruded Aluminum Body:

- Hard anodized extruded aluminum body with honed internal surface for strength, high cycle life, and low frictional resistance.

### Spring Cartridges:

- Modular pre-loaded spring cartridges with metal spring guides for use in both high and low temperature applications.

### Travel Stops:

- Two external travel stops permit adjustments of +/-5 degree.
- Travel stops are located on end caps on size 045 only.

### Position Indicator:

- Unique position indicator can be indexed to show alternate positions. Top of actuator has a NAMUR slot to engage with all popular sensor and positioners.

### Actuator Mounting:

- Manufactured in full compliance with the latest requirements of EN ISO 5211, with provisions for mounting solenoid valves and accessories, comply with NAMUR VDI/VDE 3845.



### Rack & Pinion actuators models (DA & Spring return):

- 045,055,065,075,085,100,115,125,150,175,200

### Torque Output from 40psi to 120psi (3 Bar to 8 Bar):

- 80-16815 Lb.-inch {9-1900 Nm}

### Design:

- **Valve mounting** - ISO 5211
- **Accessories mounting** - NAMUR VDI/VDE 3845

### Testing:

- AWWA-C-540

### Approvals & Certifications:

- IP68
- CE Certification
- ATEX
- SIL

### Special Applications:

- Low temperature
- High temperature

### Travel stops Arrangement:

- $\pm 5^\circ$  both directions on  $90^\circ$  stroke
- $-5^\circ$  to  $95^\circ$  - in one direction (optional)

**Material of Construction:**

- **BODY:** ASTM B221 6063 – T6 – Hard Anodized
- **PISTON:** LM24 - (BS-1460)
- **END CAPS:** LM24 – (BS-1460)
- **PINION:** EN8/EN 19 – Electroless Nickel Plated
- **'O' RING:** NITRILE/ SILICON/ VITON
- **PISTON PAD:** STANYL TW-371
- **PISTON BAND:** STANYL TW-371
- **PISTON BEARINGS:** STANYL TW-371
- **HARDWARE:** SS304

**Temperature Range:**

- **For Standard Temp. : NBR:** -4°F to 176°F (- 20°C to 80°C)
- **For High Temp. : VITON:** -4°F to 302°F (- 20°C to 150°C)
- **For Low Temp. : SILICON:** -40°F to 302°F (- 40°C to 150°C)