

DESCRIPTION

The Model EVA-1 is a small, electronically controlled, valve actuator developed specifically to fit 1/4 inch to 1 inch Research Control® Valves. Its accurate positioning and compact size make it especially suited to flow control in research and small process applications. The unit features:

- Microprocessor-controlled, linear stepper motor
- 4-20 mA analog input
- Position 4-20 mA analog output (optional)
- Choice of 12 speeds
- Up to 40 pounds of stem thrust
- Accurate and repeatable positioning
- Adjustable split range
- Quick and simple zero and span input and output adjustments
- Adjustable stroke from 0.1875" to 0.5625"
- User adjustable direct or reverse action
- RS-232 Serial Port for all adjustments without removing the cover*
- Controlled seating force to prevent innervalve damage
- Built-in temperature compensation
- Stainless steel yoke and rugged epoxy coated aluminum housing
- 115VAC/12VDC, 230VAC/12VDC, and 24VDC models available

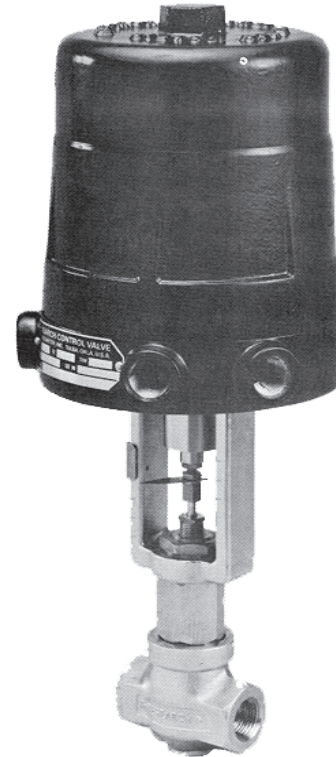
OPERATION

The Model EVA-1 consists of a microprocessor-controlled, linear stepper motor that responds to an input signal of 4-20 mA DC. It also offers an optional isolated loop powered 4-20 mA position output for signaling back to an indicator or control panel. The standard Model EVA-1 requires a 115 VAC power supply with 230VAC and 24VDC models available. A stroke of 0.437 inches for the 1/4" unit or a stroke of 0.562 inches for the 1/2" to 1" units is standard and can be adjusted quickly and easily with two switches under the actuator cover or via the communication port. This ease of calibration can be used to split range the input or limit the up or down travel of the valve. The Unit utilizes a "dual speed" operating mode. The low speed mode generates high thrust for seating the valve and overcoming packing friction while the high speed mode allows the valve to respond quickly to large input signal changes.

RATINGS

NEMA 4: Watertight
EXPLOSION PROOF: Class 1, Division 1, Group C & D
Standard models approved by FM and CSA.

* Not EXPLOSION PROOF when RS-232 port is uncovered or when cover is removed.



Shown mounted on Type 807 valve assembly

SPECIFICATIONS

- Electrical:
- Supply Power/Standard: 115 VAC +/- 10% @ 50-60 Hz and/or 12 VDC
 - Supply Power/Optional: 230 VAC +/- 10% @ 50-60 Hz and/or 12 VDC 24 VDC +/- 3%
 - Control input: 4-20 mA DC @ 125 ohms
 - Position Output: 4-20 mA DC isolated, 0-800 ohm loop impedance
- Mechanical:
- Stroke Length: up to 0.562" (adjustable)
 - Thrust: 40 lbs. at minimum step rate; 10 lbs. at maximum step rate
(See Output vs. Speed Chart on page 2)
 - Height: 13 inches (actuator with yoke only)
 - Weight: 12 lbs. (actuator with yoke only)
 - Operating Temperature Range: -10° to +60° C



