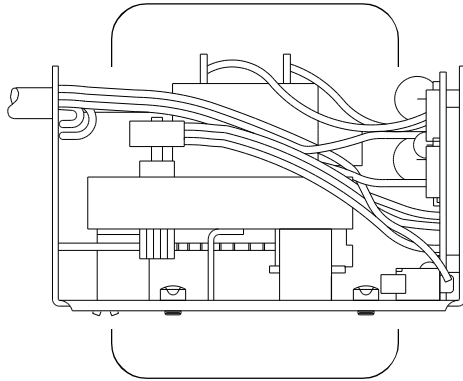


☆STAR ZONE VALVES REGULUS ACTUATOR (ZR SERIES)

An Actuator with Infinite Proportional Control.

☆Star zone valves are designed primarily for use on chilled or hot water and low-pressure steam. The valves are compatible with hundreds of other fluids in many environments. ☆Star actuators are compatible with all ☆Star series 2 and 3 port bodies.

BENEFITS & SPECIAL FEATURES



Regulus Actuator



- Actuator is removable without draining the system
- Actuator is interchangeable with all ☆Star series actuators
- Actuator fits all ☆Star series bodies
- Motor is replaceable without draining the system
- 0-10V, or 4-20mA analog control signal
- 90 second complete cycle time
- Delrin bearing for long life
- Self-adjusting for paddle wear
- Visible position indicator
- Optional electronic feedback position indicator
- Same envelope dimension as the *Astral* actuator
- One year warranty

Description

A motorized proportional actuator. Controlled by a PI or PID thermostat with 0-10 volt or 4-20 milliamp output. May be stopped at any intermediate position for variable flow.

Applications

The Regulus ☆Star valve is used where accurate proportional control is required. Applications include but are not limited to: hydronic baseboard loops, control of domestic water coils, fan coils for heating and cooling, humidity control, industrial and process control and in place of motorized or manual globe, gate or ball valves.

Installation Notes

Valves are labelled with two symbols (W and □) for port indication. Two and three-port valves are unidirectional; flow can be from either port. Three port valves may be used as diverters or mixing valves. The valve may be installed at any angle so long as water is not likely to drip into the actuator.

Operation

The Regulus ☆Star actuator utilizes a powerful dc motor which drives the paddle in either direction. The end travel stop is electronically controlled without using a limit switch. With this unique feature, the Regulus has the ability to detect end of travel or a malfunction and stop automatically. The actuator will seek a predetermined position set by the controller and automatically stop at the correct moment. It is self-adjusting for paddle wear. An optional feedback control can transmit exact position to a controller. The actuator may be replaced or upgraded (and reused elsewhere) to another ☆Star series actuator without draining the system.

Warranty

All Regulus ☆Star valves are warranted against defects in materials and workmanship for a period of one year. Some restrictions apply. See complete warranty for details.

SPECIFICATIONS

POWER REQUIREMENTS	24VDC.
MINIMUM WIRING REQUIREMENTS ...	18 gauge 90° C.
VALVE MOTOR	
Power draw requirements	6 watts when opening or closing. No draw while at rest.
Torque (running)	120in./oz. (.84N/M) minimum at 90% of rated power at the valve stem.
Timing	motor cycles in 30 seconds (.5 min.).
Characteristics	power close, power open; can be stopped and/or reversed at any point.
Type	dc
FEEDBACK	0-10V or 4-20mA (selectable) feedback position indicator.
CONNECTIONS/WIRE	BX, cable, leads, terminal strip, modular plug-in cable.
WIRE LENGTH	4 - 96", 10 - 244cm.
TEMPERATURE RATINGS (ambient)	classE motor: 248° F / 120° C auxiliary switch: 185° F / 85° C
GROSS WEIGHT (average)	
Individually packed, actuator only	17 ozs. (482g)

Flair pursues a policy of constant improvement. For this reason, all specifications are subject to change without notice.

MATERIALS

- | | |
|--------------------------------------|-----------------------------|
| 1. Motor | 8. Mounting screw |
| 2. Motor retainer tab | 9. Frame (galvanized steel) |
| 3. Motor mounting plate (galvanized) | 10. Cover screw |
| 4. Eyelet | 11. Cover (aluminum) |
| 5. Sector gear (brass) | 12. Insulator shield |
| 6. Bushing (delrin) | 13. PC board, motor & cable |
| 7. <i>Strain relief</i> | 14. <i>Auxiliary switch</i> |

Items in *italic* type are optional. Other options not shown.

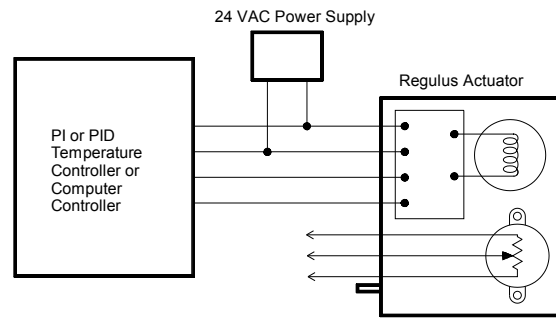
OPTIONS

See power, auxiliary switch, wire type and wire length in "specifications" section.

Packaging: Actuators may be ordered assembled with a valve body, individually packed; actuators may be ordered separately.

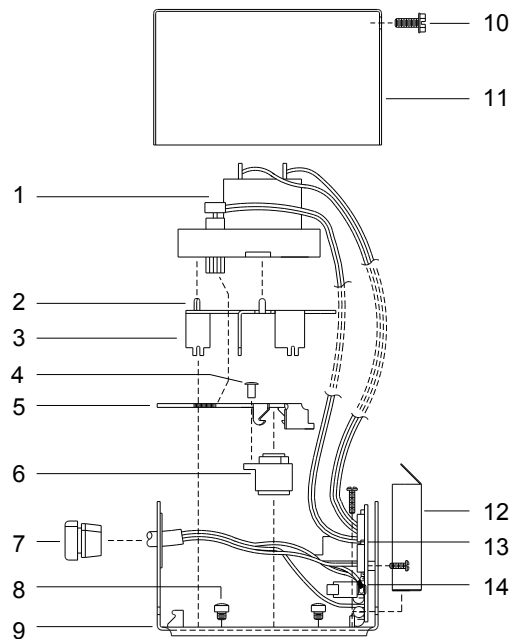
Deluxe: All actuators are available in a deluxe model suitable for harsh and high humidity environments. Upgrade includes: black anodized cover, stainless steel screws (may be standard on non-deluxe), silicone sealing of all critical joints.

WIRING DIAGRAMS



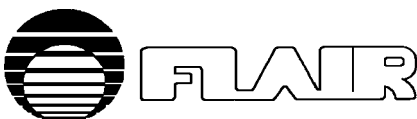
WIRING DIAGRAM

Typical application using controller. Provides a variable voltage or amperage output to a reversible type actuator through an independent control circuit.



REFERENCE

For more information on:	see:
compatible bodies	body pages (this section)
other ☆Star actuators	actuator pages (this section)
reference material	appendix
weight & shipping information	appendix
suggested pricing	pricing section



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