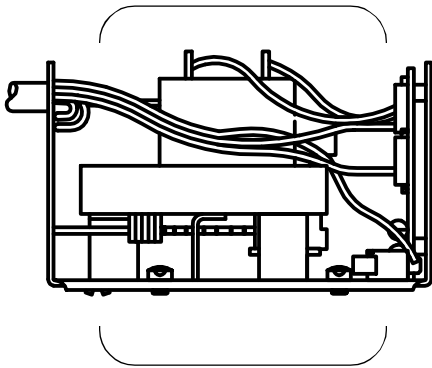


☆STAR ZONE VALVES PULSAR ACTUATOR (ZP SERIES)

A 3-point Floating Control Actuator.

☆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



Pulsar 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
- Limitless™ circuit detects end of travel and turns off motor
- Pulsed control signal
- Switchable between 2- and 3- wire digital control signal
- 90 second complete cycle time
- Delrin bearing for long life
- Self-adjusting for paddle wear
- Position indicator
- Auxiliary switch available
- Same envelope dimension as the *Astral* actuator
- One year warranty

Description

A floating control, modulating motorized actuator. Controlled by a standard, PI or PID three wire thermostat with continuous or pulsed output. May be stopped at any intermediate position for variable flow.

Application

The Pulsar ☆Star valve is used where modulating 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 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 Pulsar ☆Star actuator utilizes a powerful dc motor which drives the paddle in either direction. The stop is electronically controlled without using a limit switch. With this unique feature, the Pulsar has the ability to detect end of travel or a malfunction and stop automatically. It is self adjusting for paddle wear. An optional auxiliary switch at the end of travel can trigger an external device. The actuator may be replaced or upgraded (and reused elsewhere) to another ☆Star series actuator without draining the system.

Warranty

All Pulsar ☆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	24 VAC.
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 90 seconds (1.5 min.).
Characteristics	power close, power open; can be stopped and/or reversed at any point.
Type	dc
AUXILIARY SWITCHES	1 or 2 snap acting micro switches, 5 amps resistive at 125/250 VAC, N/O, N/C or N/O/C contacts.
CONNECTIONS/WIRE	BX, cable, leads, terminal strip, modular plug-in cable.
WIRE LENGTH	4 - 96", 10 - 244cm.
TEMPERATURE RATINGS (ambient)	class E 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 assembly |
| 7. <i>Strain relief</i> | 14. <i>Auxiliary switch</i> |
| | 15. Terminal block |

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

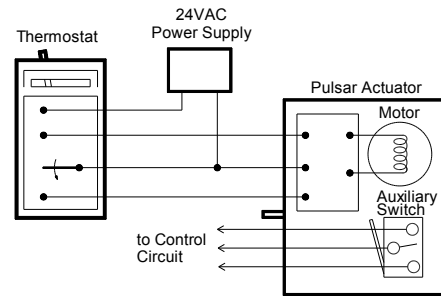
OPTIONS

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

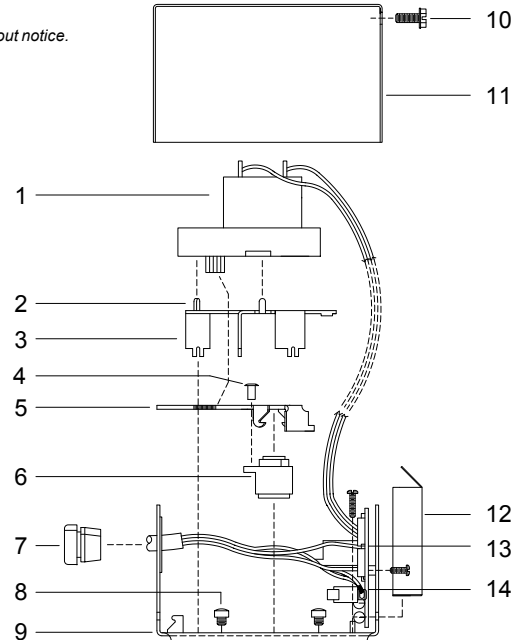
Packaging: Actuators may be ordered assembled with a valve body, individually packed; actuators may be ordered separately.

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



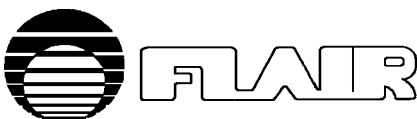
WIRING DIAGRAM



REFERENCE

For more information on:
compatible bodies
other ☆Star actuators
reference material
weight & shipping information
suggested pricing

see:
body pages (this section)
actuator pages (this section)
appendix
pricing section



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