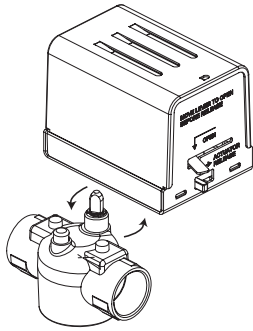


TAC Erie™ Zone Valves

Two-Way Spring Return



1/2 to 1-1/4 in. Sweat Ends

**Two-Way Spring Return
General Close-Off
Two-Position**

| | |
|--------------------------------|---|
| Flow Type | On, off, normally open or closed |
| Material | Body Forged brass Seat Brass Stem Nickel plated brass Paddle Highly saturated nitrile (VS), Buna N (VT) |
| Fluid Temperature | VT Series: 32 to 200 °F @ 104 °F ambient (0 to 93 °C @ 40 °C) Water VS Series: 32 to 250 °F @ 169 °F ambient (0 to 121 °C @ 76 °C) Water or 15 psi Steam |
| Maximum Static Pressure | 300 psi (20.6 bar) |
| Seat Leakage | ANSI IV |

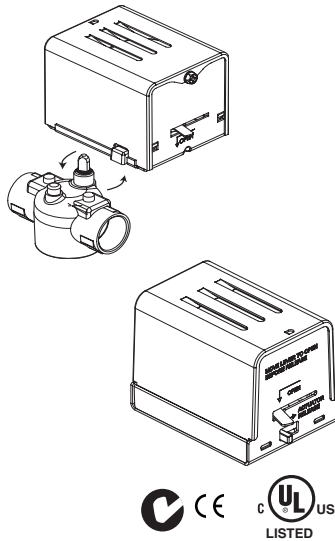
| Size in. | Cv (Kvs) | Close Off Pressure psi (kPa) | Normally Open/Normally Closed | VT Series 32 to 200 °F | | VS Series - High Temp 32 to 250 °F | |
|----------|-----------|------------------------------|-------------------------------|---------------------------|---------------|---------------------------------------|---------------|
| | | | | 24 Vac | 120 Vac | 24 Vac | 120 Vac |
| 1/2 | 1 (0.8) | 60 (413) | NC | VT2211G13A020 | VT2211G13B020 | VS2211G14A020 | VS2211G14B020 |
| | | | NO | VT2211G23A020 | VT2211G23B020 | VS2211G24A020 | VS2211G24B020 |
| | 2.5 (2.2) | 40 (275) | NC | VT2212G13A020 | VT2212G13B020 | VS2212G14A020 | VS2212G14B020 |
| | | | NO | VT2212G23A020 | VT2212G23B020 | VS2212G24A020 | VS2212G24B020 |
| | 3.5 (3) | 25 (172) | NC | VT2213G13A020 | VT2213G13B020 | VS2213G14A020 | VS2213G14B020 |
| | | | NO | VT2213G23A020 | VT2213G23B020 | VS2213G24A020 | VS2213G24B020 |
| 3/4 | 2.5 (2.2) | 40 (275) | NC | VT2312G13A020 | VT2312G13B020 | VS2312G14A020 | VS2312G14B020 |
| | | | NO | VT2312G23A020 | VT2312G23B020 | VS2312G24A020 | VS2312G24B020 |
| | 3.5 (3) | 25 (172) | NC | VT2313G13A020 | VT2313G13B020 | VS2313G14A020 | VS2313G14B020 |
| | | | NO | VT2313G23A020 | VT2313G23B020 | VS2313G24A020 | VS2313G24B020 |
| | 5 (4.3) | 20 (138) | NC | VT2315G13A020 | VT2315G13B020 | VS2315G14A020 | VS2315G14B020 |
| | | | NO | VT2315G23A020 | VT2315G23B020 | VS2315G24A020 | VS2315G24B020 |
| | 7.5 (6.5) | 17 (117) | NC | VT2317G13A020 | VT2317G13B020 | VS2317G14A020 | VS2317G14B020 |
| | | | NO | VT2317G23A020 | VT2317G23B020 | VS2317G24A020 | VS2317G24B020 |
| 1 | 5 (4.3) | 20 (138) | NC | VT2415G13A020 | VT2415G13B020 | VS2415G14A020 | VS2415G14B020 |
| | | | NO | VT2415G23A020 | VT2415G23B020 | VS2415G24A020 | VS2415G24B020 |
| | 8 (6.9) | 17 (117) | NC | VT2417G13A020 | VT2417G13B020 | VS2417G14A020 | VS2417G14B020 |
| | | | NO | VT2417G23A020 | VT2417G23B020 | VS2417G24A020 | VS2417G24B020 |
| 1-1/4 | 8 (6.9) | 17 (117) | NC | VT2517G13A020 | VT2517G13B020 | VS2517G14A020 | VS2517G14B020 |
| | | | NO | VT2517G23A020 | VT2517G23B020 | VS2517G24A020 | VS2517G24B020 |

Zone Valves

Actuator Code Table.

| Actuator Model (Reference pages 146 thru 148) | Description | Wiring Diagrams | | Dimension Information | |
|--|-------------|-----------------|--------|-----------------------|--------|
| | | Page | Figure | Page | Figure |
| AG13A020, AG23A020 AG14A020, AG24A020 | 2-Position | 152 | 1 | 206 | 102 |
| AG13B020, AG23B020 AG14B020, AG24B020 | 2-Position | 152 | 1 | 206 | 102 |

TAC Erie™ AG, AH Series Spring Return Actuator Two-Position



Connections: 18 in. leads.
Housing: NEMA 1.
Dimensions: G Series: 2-3/8 H x 2-3/8 W x 3-11/16 D in. (60 x 60 x 96 mm)
 H Series: 2-7/16 H x 2-5/8 W x 3-11/16 D in. (62 x 67 x 93 mm)
Override: Manual (normally closed models only).
Motor Type: Hysteresis synchronous.
General Instructions: Refer to F-26496.
Agency Listing:

UL-873. Underwriters Laboratories (File #E9429 Category Temperature Indicating and Regulating Equipment).
 European Community: EMC Directive (89/336/EEC). Low Voltage Directive (72/23/EEC).
 CUL: UL listed for use in Canada by Underwriters Laboratory. Canadian Standards C22.2 No. 24.
 Australia: This product meets requirements to bear the C-Tick Mark according to the terms specified by the Communications Authority under the Radio Communications Act of 1992.

Zone Valves

| General Close-Off, 2-Position, Power (Open or Close): 9 to 11 Seconds; Spring Return (Open or Close): 4 to 5 Seconds | | | | | | | |
|--|----------|-----|---|---|----------------------|------------------------|---|
| Model No. | Volts AC | VA | Electrical Position | Temperature Range F (C) | End Of Travel Switch | Wiring | |
| AG13A020 | 24 | 7.5 | Normally Closed | 32 to 200°F (Fluid) @ 104°F (Ambient) (0 to 93°C @ 40°C) | No | 18 in. (45.7 cm) Leads | |
| AG13B020 | 120 | | | 32 to 250°F (Fluid) @ 169°F (Ambient) (0 to 121°C @ 76°C) | | | |
| AG14A020 | 24 | | | Normally Open (can only be used on 2-way valve) | | | 32 to 200°F (Fluid) @ 104°F (Ambient) (0 to 93°C @ 40°C) |
| AG14B020 | 120 | | | | | | 32 to 250°F (Fluid) @ 169°F (Ambient) (0 to 121°C @ 76°C) |
| AG23A020 | 24 | | 32 to 200°F (Fluid) @ 104°F (Ambient) (0 to 93°C @ 40°C) | | | | |
| AG24A020 | 24 | | 32 to 250°F (Fluid) @ 169°F (Ambient) (0 to 121°C @ 76°C) | | | | |
| AG23B020 | 120 | | 32 to 200°F (Fluid) @ 104°F (Ambient) (0 to 93°C @ 40°C) | | | | |
| AG24B020 | 120 | | 32 to 250°F (Fluid) @ 169°F (Ambient) (0 to 121°C @ 76°C) | | | | |

| High Close Off, 2-Position, Power (Open or Close): 13 to 18 Seconds; Spring Return (Open or Close): 4 to 5 Seconds | | | | | | | |
|--|----------|-----|---|---|----------------------|------------------------|---|
| Model No. | Volts AC | VA | Electrical Position | Temperature Range F (C) | End Of Travel Switch | Wiring | |
| AH13A020 | 24 | 7.5 | Normally Closed | 32 to 200°F (Fluid) @ 104°F (Ambient) (0 to 93°C @ 40°C) | No | 18 in. (45.7 cm) Leads | |
| AH13B020 | 120 | | | 32 to 250°F (Fluid) @ 169°F (Ambient) (0 to 121°C @ 76°C) | | | |
| AH14A020 | 24 | | | Normally Open (can only be used on 2-way valve) | | | 32 to 200°F (Fluid) @ 104°F (Ambient) (0 to 93°C @ 40°C) |
| AH14B020 | 120 | | | | | | 32 to 250°F (Fluid) @ 169°F (Ambient) (0 to 121°C @ 76°C) |
| AH23A020 | 24 | | 32 to 200°F (Fluid) @ 104°F (Ambient) (0 to 93°C @ 40°C) | | | | |
| AH23B020 | 120 | | 32 to 250°F (Fluid) @ 169°F (Ambient) (0 to 121°C @ 76°C) | | | | |
| AH24A020 | 24 | | 32 to 200°F (Fluid) @ 104°F (Ambient) (0 to 93°C @ 40°C) | | | | |
| AH24B020 | 120 | | 32 to 250°F (Fluid) @ 169°F (Ambient) (0 to 121°C @ 76°C) | | | | |

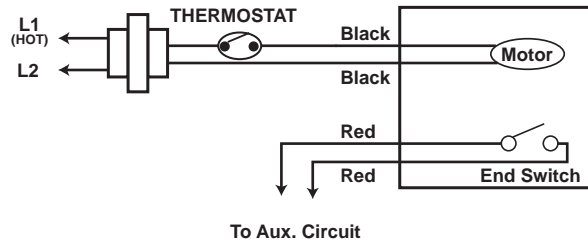


Figure 1 AG/AH TAC Erie PopTop with Wire Leads.

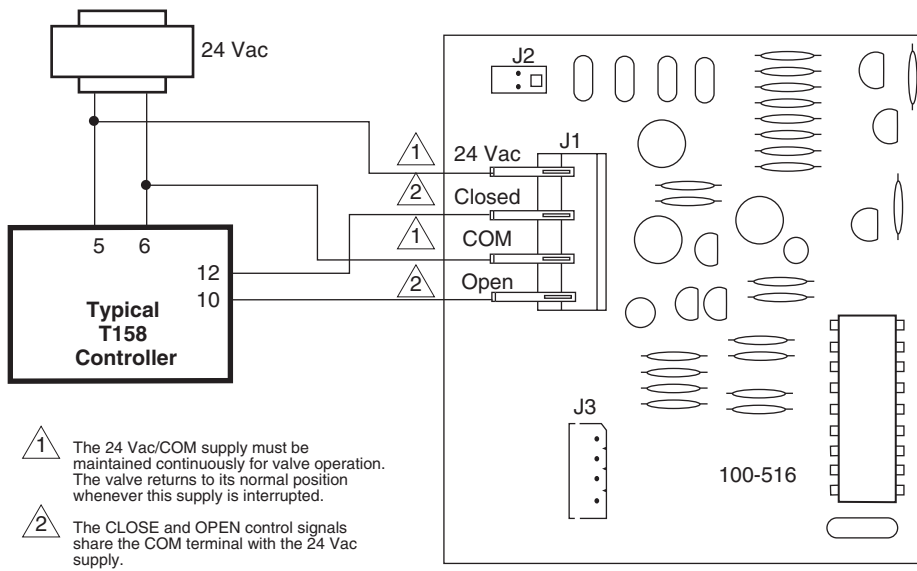


Figure 2 ATx3A00T TAC Erie PopTop 3-Wire Floating Actuator with Time-Out.

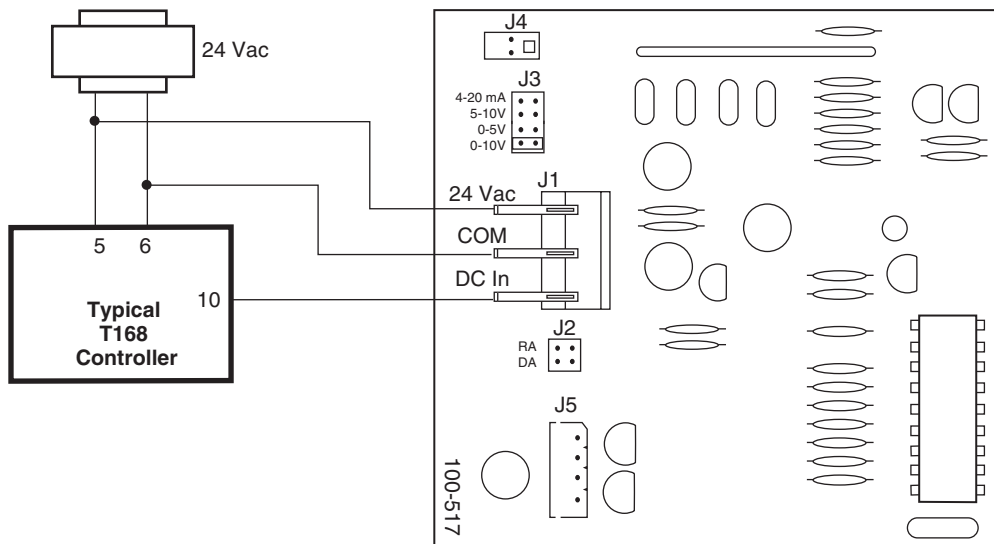
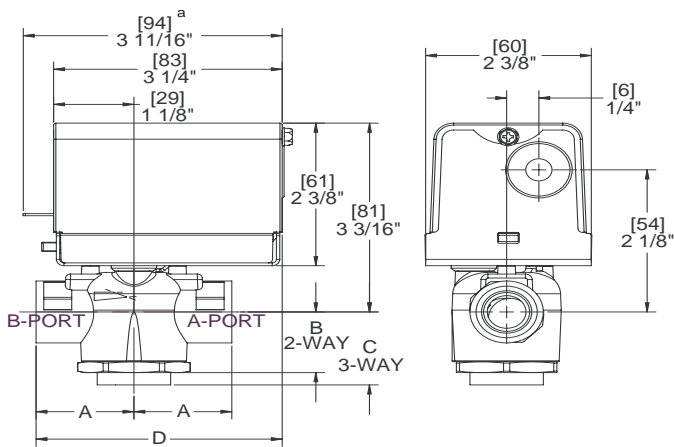


Figure 3 APx3A000 TAC Erie PopTop Three-Wire Proportional Actuator.

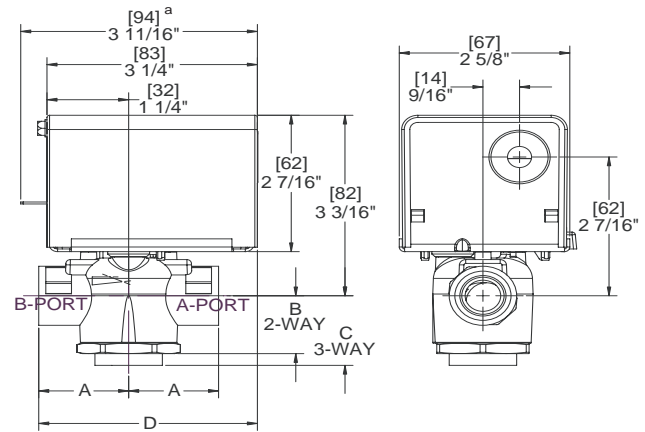
Dimensions — 1/2" to 1" Zone Valve Assemblies

| Valve Body Size inches | Valve Dimensions in inches (millimeters) | | | | |
|---------------------------|--|------------|--------------|--|--|
| | A | B 2-Way | C 3-Way | D (General Close-Off) (Refer to Figure 102) | D (High Close-off) (Refer to Figure 103) |
| 1/2" Sweat | 1-5/16 (33) | 15/16 (23) | 1-5/16 (33) | 3-5/16 (84) | 3-5/8 (92) |
| 3/4" Sweat | 1-3/8 (35) | 15/16 (23) | 1-11/16 (43) | 3-3/8 (86) | 3-3/4 (95) |
| 1" Sweat | 1-11/16 (43) | 15/16 (23) | 1-11/16 (43) | 3-5/8 (92) | 4 (102) |
| 1-1/4" Sweat | 1-7/8 (47) | 1 (25) | 1-13/16 (46) | 3-11/16 (94) | 4-1/8 (105) |
| 1/2" NPT | 1-3/8 (35) | 15/16 (23) | 1-5/16 (33) | 3-3/8 (86) | 3-3/4 (95) |
| 3/4" NPT | 1-11/16 (43) | 15/16 (23) | 1-7/16 (37) | 3-5/8 (92) | 4 (102) |
| 1" NPT | 1-7/8 (47) | 1 (25) | 1-11/16 (43) | 3-11/16 (94) | 4-1/8 (105) |



^a Normally closed model only.

Figure 102 VT/VS AG Series General Close-Off.



^a Normally closed model only.

Figure 103 VT/VS AH Series High Close-Off.