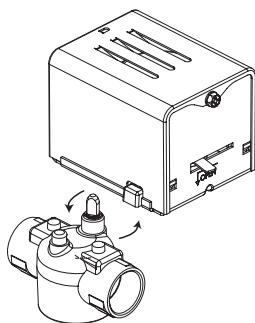


# TAC Erie™ Zone Valves Two-Way Spring Return



1/2 to 1 in. Female NPT Ends

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

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

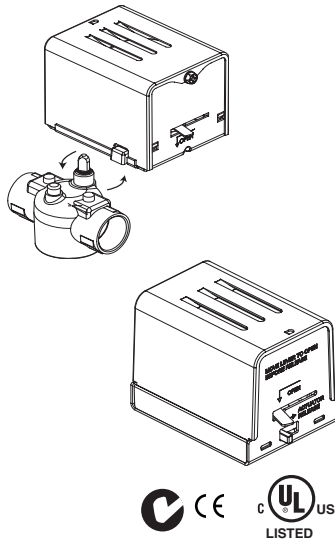
Size in.	Cv (K <sub>vs</sub> )	Close Off Pressure psi (kPa)	Normally Open/Normally Closed	VT Series 32 to 200 °F		VS Series 32 to 250 °F	
				24 Vac	120 Vac	24 Vac	120 Vac
1/2	1 (0.8)	75 (517)	NC	VT2221H13A020	VT2221H13B020	VS2221H14A020	VS2221H14B020
			NO	VT2221H23A020	VT2221H23B020	VS2221H24A020	VS2221H24B020
	2.5 (2.2)	50 (345)	NC	VT2222H13A020	VT2222H13B020	VS2222H14A020	VS2222H14B020
			NO	VT2222H23A020	VT2222H23B020	VS2222H24A020	VS2222H24B020
	3.5 (3)	30 (207)	NC	VT2223H13A020	VT2223H13B020	VS2223H14A020	VS2223H14B020
			NO	VT2223H23A020	VT2223H23B020	VS2223H24A020	VS2223H24B020
3/4	2.5 (2.2)	50 (345)	NC	VT2322H13A020	VT2322H13B020	VS2322H14A020	VS2322H14B020
			NO	VT2322H23A020	VT2322H23B020	VS2322H24A020	VS2322H24B020
	3.5 (3)	30 (207)	NC	VT2323H13A020	VT2323H13B020	VS2323H14A020	VS2323H14B020
			NO	VT2323H23A020	VT2323H23B020	VS2323H24A020	VS2323H24B020
	5 (4.3)	25 (172)	NC	VT2325H13A020	VT2325H13B020	VS2325H14A020	VS2325H14B020
			NO	VT2325H23A020	VT2325H23B020	VS2325H24A020	VS2325H24B020
	8 (6.9)	20 (138)	NC	VT2327H13A020	VT2327H13B020	VS2327H14A020	VS2327H14B020
			NO	VT2327H23A020	VT2327H23B020	VS2327H24A020	VS2327H24B020
1	8 (6.9)	25 (172)	NC	VT2427H13A020	VT2427H13B020	VS2427H14A020	VS2427H14B020
			NO	VT2427H23A020	VT2427H23B020	VS2427H24A020	VS2427H24B020

Zone Valves

**Actuator Code Table.**

Actuator Model (Reference pages 146 thru 148)	Description	Wiring Diagrams		Dimension Information	
		Page	Figure	Page	Figure
AH13A020, AH23A020 AH14A020, AH24A020	2-Position	152	1	206	103
AH13B020, AH23B020 AH14B020, AH24B020	2-Position	152	1	206	103

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



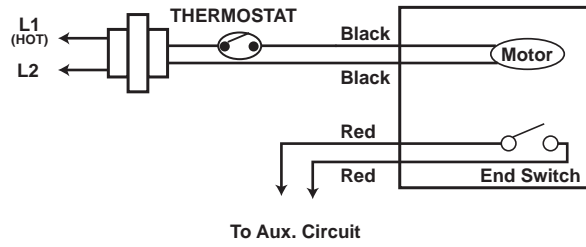
**Connections:** 18 in. leads.  
**Housing:** NEMA 1.  
**Dimensions:** G Series: 2-3/8 H x 2-3/8 W x 3-11/16 D in. (60 x 60 x 96 mm)  
 H Series: 2-7/16 H x 2-5/8 W x 3-11/16 D in. (62 x 67 x 93 mm)  
**Override:** Manual (normally closed models only).  
**Motor Type:** Hysteresis synchronous.  
**General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

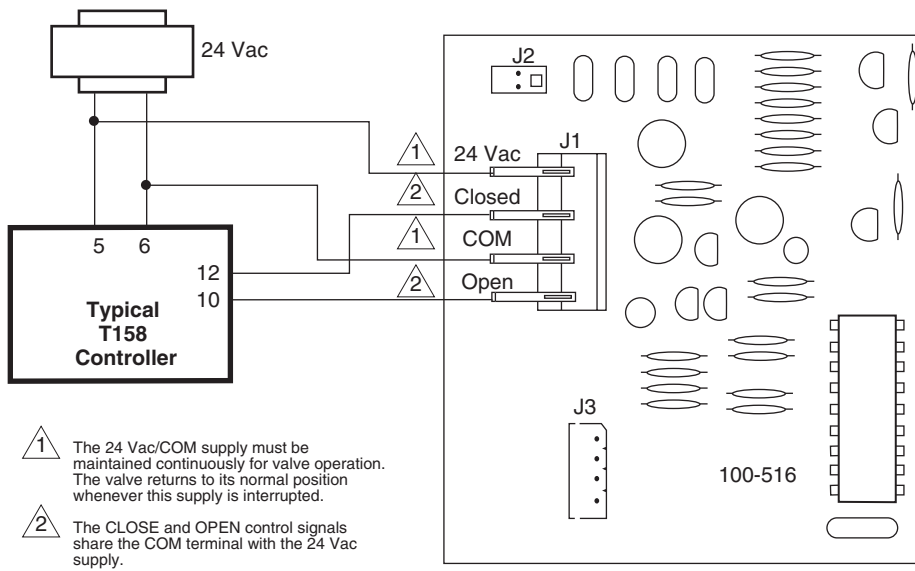
Zone Valves

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)				

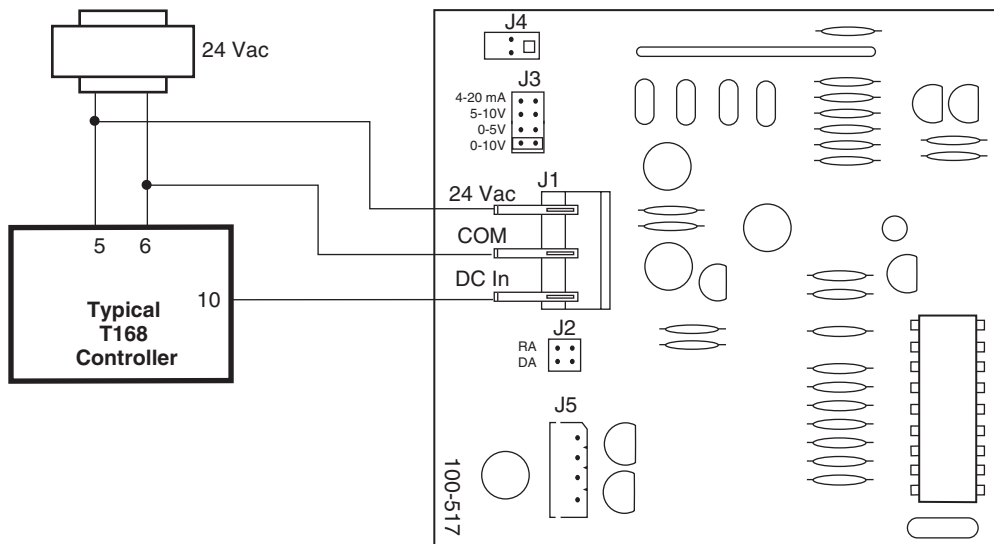
High Close Off, 2-Position, Power (Open or Close): 13 to 18 Seconds; Spring Return (Open or Close): 4 to 5 Seconds							
Model No.	Volts AC	VA	Electrical Position	Temperature Range F (C)	End Of Travel Switch	Wiring	
AH13A020	24	7.5	Normally Closed	32 to 200°F (Fluid) @ 104°F (Ambient) (0 to 93°C @ 40°C)	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.**



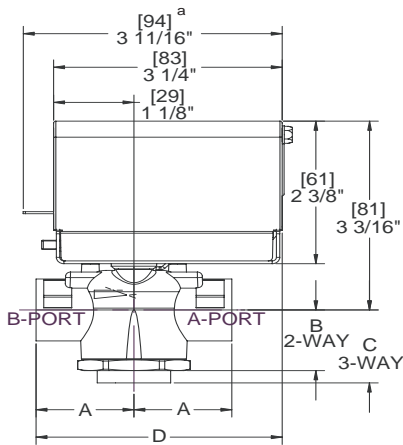
**Figure 2 ATx3A00T TAC Erie PopTop 3-Wire Floating Actuator with Time-Out.**



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

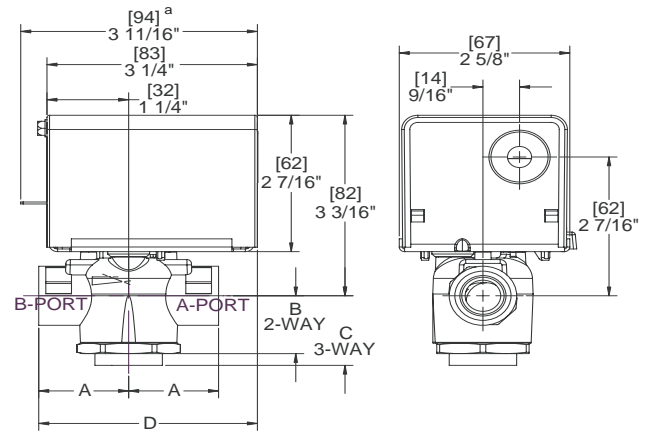
### Dimensions — 1/2" to 1" Zone Valve Assemblies

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)



<sup>a</sup> Normally closed model only.

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



<sup>a</sup> Normally closed model only.

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