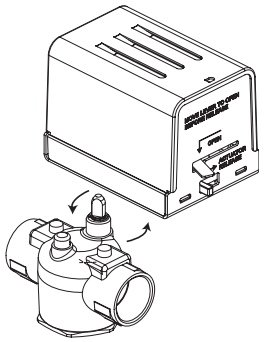
TAC Erie™ Zone Valves
Three-Way Mixing or Diverting Spring Return



1/2 to 1 in. Female NPT Ends

Three-Way Mixing or Diverting Spring Return

Normally Closed (B Port)

General Close-Off Two-Position

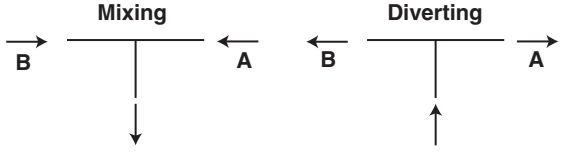
Flow Type		1 to 4 Cv equal % 8 Cv linear
Material	**Body**	Forged brass
	Seat	Brass
	Stem	Nickel plated brass
	Paddle	Highly saturated nitrile (VS), Buna N (VS)
Fluid Temperature		VT Series: 32 to 200 °F @ 104 °F ambient (0 to 93 °C @ 40 °C) VS Series: 32 to 250 °F @ 169 °F ambient (0 to 121 °C @ 76 °C)
Maximum Static Pressure		300 psi (20.6 bar)
Seat Leakage		ANSI IV

Size in.	Cv (K_{VS})	Close Off psig (kPa)	VT Series 32 to 200 °F	VS Series - High Temp 32 to 250 °F	Voltage Vac
1/2	1 (0.8)	60 (413)	VT3221G13A020	VS3221G14A020	24
			VT3221G13B020	VS3221G14B020	120
	2.5 (2.2)	40 (275)	VT3222G13A020	VS3222G14A020	24
			VT3222G13B020	VS3222G14B020	120
	3.5 (3)	25 (172)	VT3223G13A020	VS3223G14A020	24
			VT3223G13B020	VS3223G14B020	120
3/4	2.5 (2.2)	40 (275)	VT3322G13A020	VS3322G14A020	24
			VT3322G13B020	VS3322G14B020	120
	3.5 (3)	25 (172)	VT3323G13A020	VS3323G14A020	24
			VT3323G13B020	VS3323G14B020	120
	5 (4.3)	20 (138)	VT3325G13A020	VS3325G14A020	24
			VT3325G13B020	VS3325G14B020	120
	7.5 (6.5)	17 (117)	VT3327G13A020	VS3327G14A020	24
			VT3327G13B020	VS3327G14B020	120
1	8 (6.9)	17 (117)	VT3427G13A020	VS3427G14A020	24
			VT3427G13B020	VS3427G14B020	120

Actuator Code Table.

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

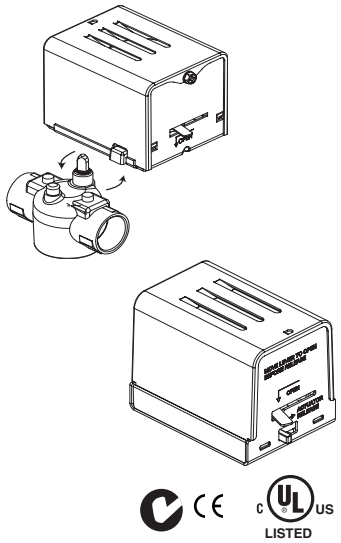
Three-Way Flow Patterns



For normally open, reverse pipe A and B ports. B port is normally closed.

Zone Valves

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.

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					
AG14A020	24			32 to 250°F (Fluid)@ 169°F (Ambient) (0 to 121°C @ 76°C)		
AG14B020	120					
AG23A020	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)		
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						
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					
AH14A020	24			32 to 250°F (Fluid) @ 169°F (Ambient) (0 to 121°C @ 76°C)		
AH14B020	120					
AH23A020	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)		
AH23B020	120					
AH24A020	24			32 to 250°F (Fluid) @ 169°F (Ambient) (0 to 121°C @ 76°C)		
AH24B020	120					

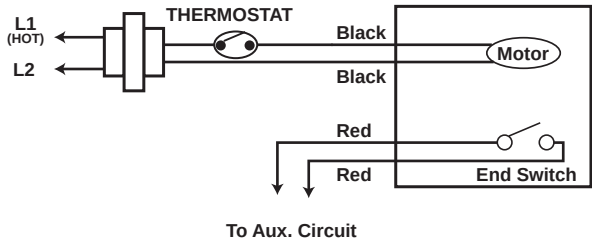


Figure 1 AG/AH TAC Erie PopTop with Wire Leads.

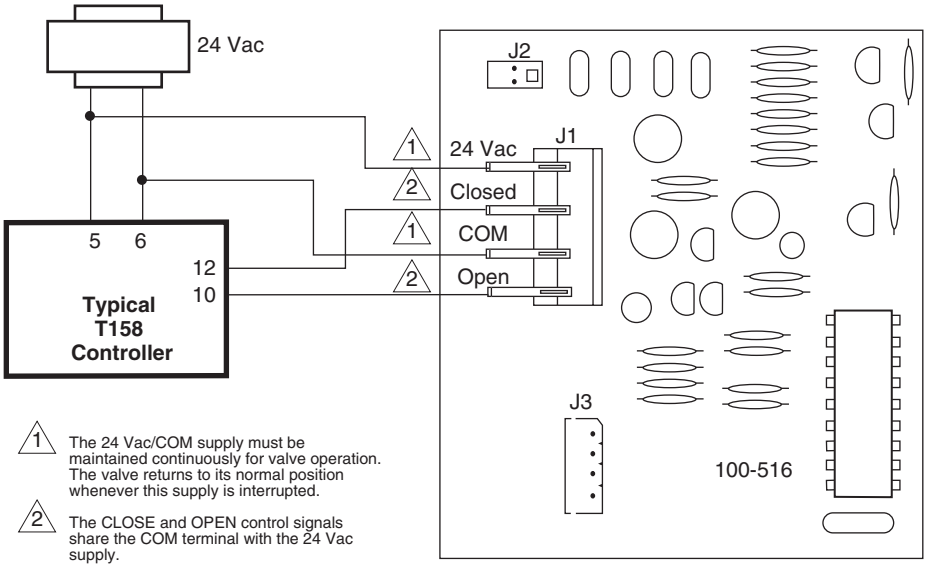


Figure 2 ATx3A00T TAC Erie PopTop 3-Wire Floating Actuator with Time-Out.

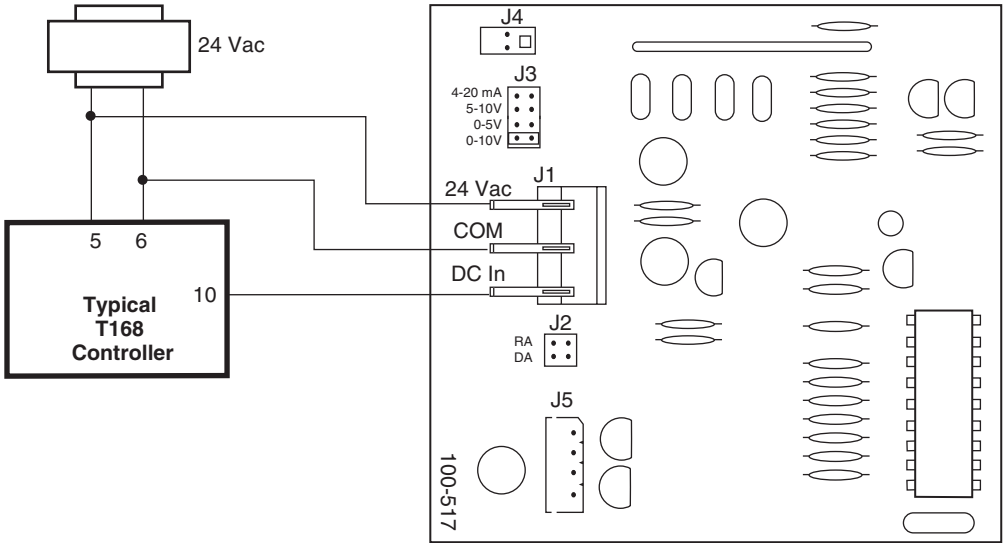
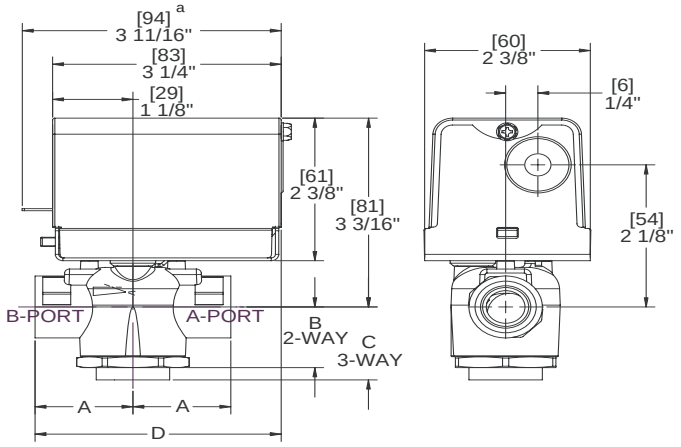


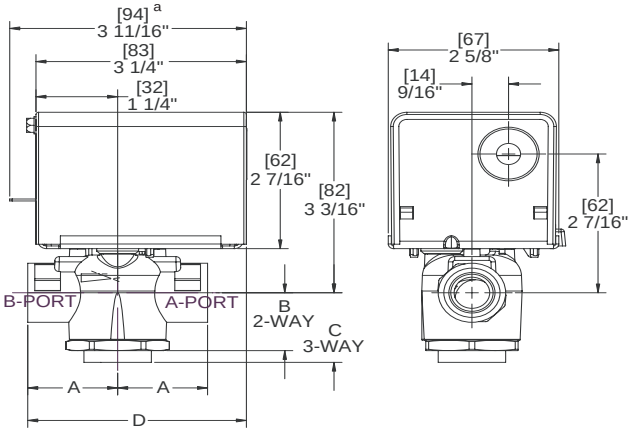
Figure 3 APx3A000 TAC Erie PopTop Three-Wire Proportional Actuator.

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.