







AutoTite Automatic Gas Shut-Off Valves

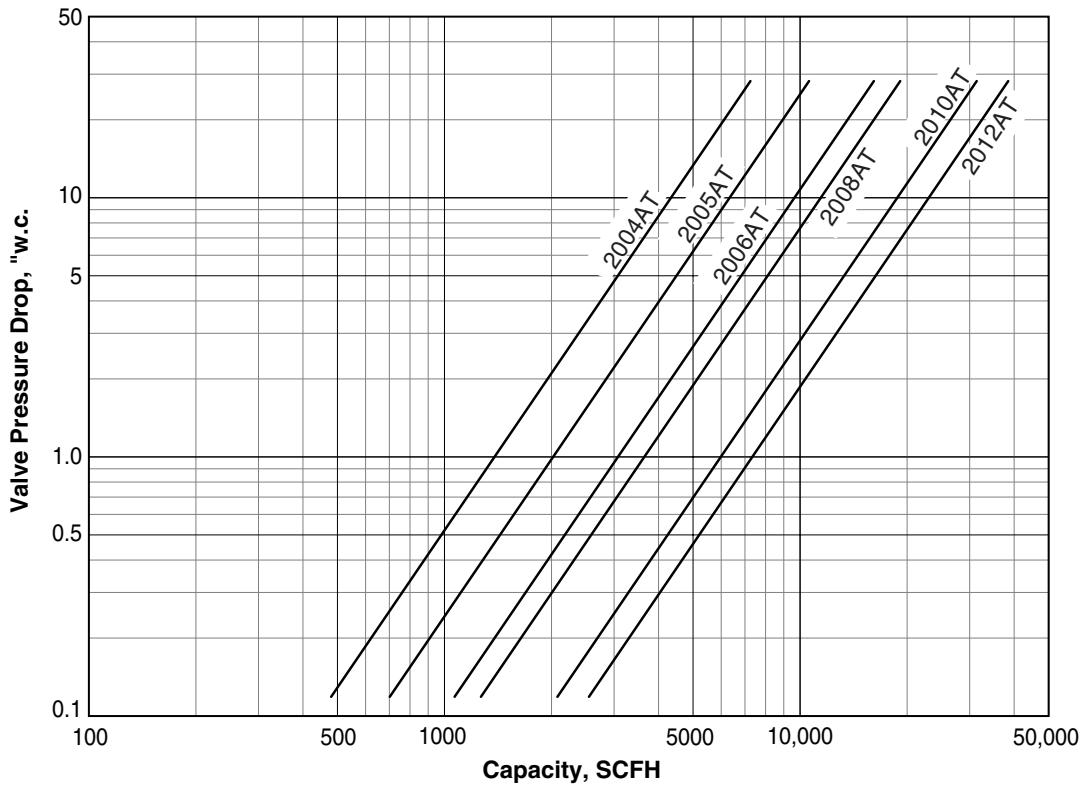
NPT Series 2000AT

Version 1.02

PARAMETER	SPECIFICATIONS			
Ambient Temp. Limits	-20° to +130°F (UL & FM) -20° to +150°F(CSA)  <u>Caution:</u> Below 32°F, the gas must be free of water vapor which could condense and freeze within the valve.			
Max. Operating Pressure	30 psi			
Gases	Approved for air, natural gas, propane, and butane. For other gases, contact Eclipse Combustion.			
Nominal Opening Time	15 seconds maximum @ 60 Hz; 20 seconds maximum @ 50 Hz.			
Max. Closing Time	One second			
Electrical-Actuator	<u>110V/50Hz</u>	<u>120V/60Hz</u>	<u>220V/50Hz</u>	<u>220V/60Hz</u>
Amps Inrush	13.0	13.0	7.0	7.0
Amps Opening	2.25	1.85	1.10	0.92
Amps Holding	0.12	0.11	0.05	0.05
Electrical-Aux. Switches	For SPDT– 120V: 15 amp – 240V: 7.5 amp Max. total connected load for switches: 1800 VA			
Agency Approvals	 UL Listed (File – MH5769)  FM Approved (File – J.I. 0Z0A7.AF & J.I. 1Z5A0.AF)  CSA Certified (File – 112698/162582)			
Enclosure Rating	NEMA 1, 2, 3, 3S, 4, 12 & 13 (Combination General Purpose, Water Tight, Dust Tight, Drip Tight and Oil Tight Enclosure.)			

Valve Capacities

Pressure Drop Across Valve



Flows for natural gas (0.6 sg) at standard conditions of 60° F, 14.7 psia.
 Multiply capacities by the factors below for other gases:

- Butane (2.0 sg)..... 0.548
- Propane (1.55 sg)..... 0.632
- Air (1.0 sg)..... 0.775

Flows corrected to standard conditions (60°F, 14.7 psia)
 using the following formula:

$$Q_n = Q \left[\frac{P_a + P_1}{14.7} \times \frac{520}{T} \right]^{1/2}$$

Flow - Pressure Drop formula:

$$Q = 1360 C_v \frac{[(P_1 - P_2)P_2]^{1/2}}{(G \times T)^{1/2}}$$

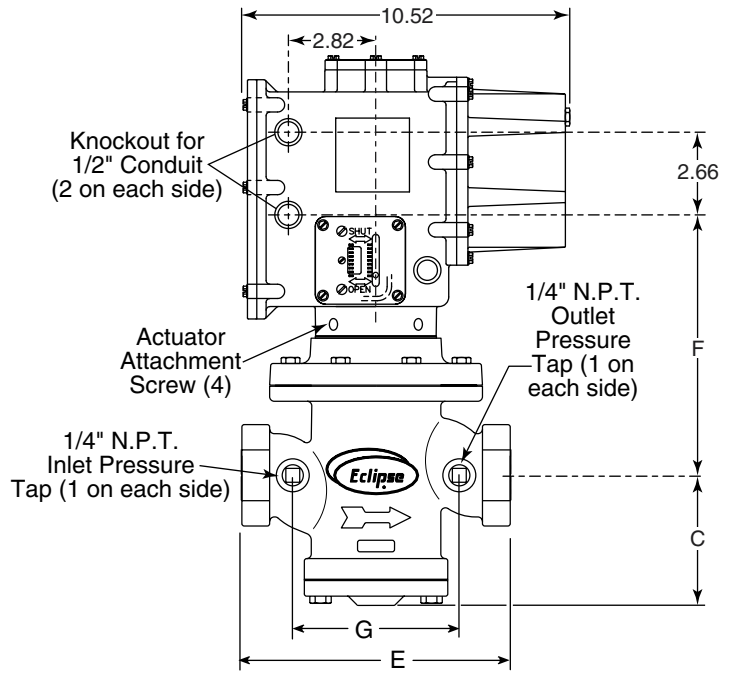
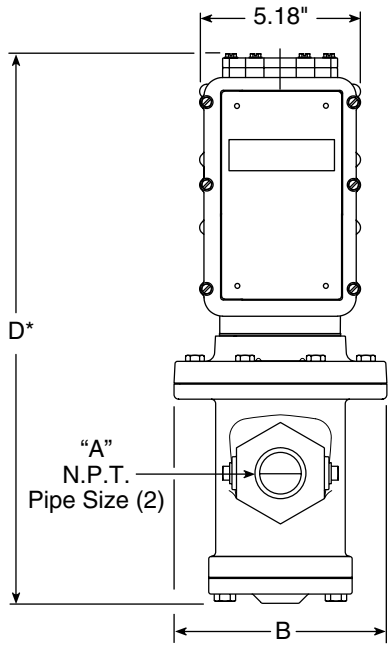
Estimated Pressure Drop formula:

$$\Delta P = \Delta P_{\text{graph}} \times \left[\frac{Q^2}{Q_n^2} \times \frac{T}{520} \times \frac{14.7}{P_1} \right]$$

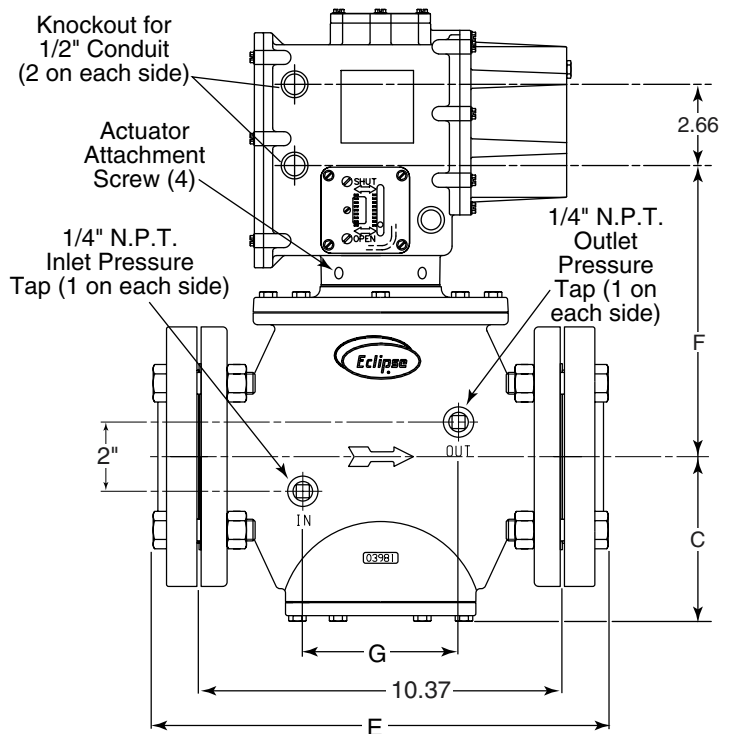
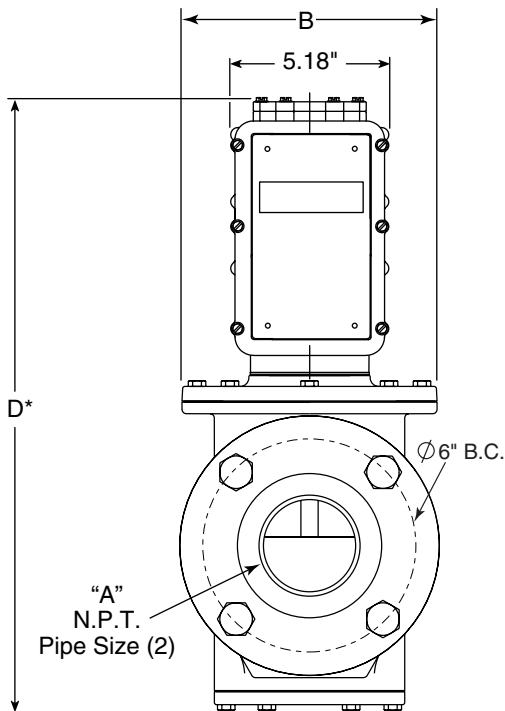
<p>Q_n = Corrected gas flow (scfh) Q = Gas flow (cfh) P_a = Atmospheric pressure (psia) P_1 = Inlet pressure (psi) P_2 = Outlet pressure (psi) T = Gas temperature (460+°F)</p> <p>C_v = 25 (2004 AT) 36 (2005 AT) 55 (2006 AT) 63 (2008 AT) 106 (2010 AT) 129 (2012 AT)</p>

Valve Dimensions

Threaded Models



Flanged Models



Model Number	Connection Type	Dimensions In Inches							Net Lbs.
		A	B	C	D*	E	F	G	
2004 AT	Threaded	1	5.75	3.50	16.34	7.25	7.70	4.50	34
2005 AT	Threaded	1.25	5.75	3.50	16.34	7.25	7.70	4.50	34
2006 AT	Threaded	1.50	5.75	3.56	16.85	9.00	8.15	5.00	40
2008 AT	Threaded	2.00	5.75	3.56	16.85	9.00	8.15	5.00	40
2010 AT	Flanged	2.5	7.37	4.75	18.78	12.87	8.91	4.50	85
2012 AT	Flanged	3.00	7.37	4.75	18.78	12.87	8.91	4.50	85

* Add 2" clearance to overall height for installation/removal of actuator.

Mounting Information

The valve body with actuators can be mounted in any position.

Approximate radius of rotation required for installing threaded body valves is:

- 5-1/2" for 1 inch and 1-1/4 inch valves
- 6" for 1-1/2 inch and 2 inch valves
- 6-3/4" for 2-1/2 inch and 3 inch valves

Ordering Information

Select the Eclipse valve assembly part numbers based on the valve size and actuator type.
Actuator shipped detached from valve body.

AT Valve Part Numbers

Pipe Size	Model Number	110/120V Part No.	220/240V Part No.	Valve Sub Assy.	Flange Kits
1.00"	2004 AT	501600	501600-1	501539	---
1.25"	2005 AT	501601	501601-1	501540	---
1.50"	2006 AT	501602	501602-1	501541	---
2.00"	2008 AT	501603	501603-1	501542	---
2.50"	2010 AT ¹	501604	501604-1	501543	501547
3.00"	2012 AT ¹	501605	501605-1	501533	501548
2.50"	2010 AT ²	501604-2	501604-3	501543	501547-10
3.00"	2012 AT ²	501605-2	501605-3	501533	501548-10

¹ Valves are shipped with ANSI Class 150 forged steel NPT threaded flanges.

² Valves are shipped with ANSI Class 150 forged steel slip-on weld flanges.



NOTE:

Flange kits include A105 forged steel flanges, Grade 2 zinc coated nuts & bolts and gaskets.

Actuator Part Numbers

Voltage	Part No.	NEMA Rating
110/120V	16000	1, 2, 3, 3s, 4, 12 & 13
220/240V	16001	1, 2, 3, 3s, 4, 12 & 13



Eclipse Combustion

www.eclipsenet.com