

SERIES W1700

TWO STAGE, TIED DIAPHRAGM REGULATOR

Low flow, source applications



- Tied diaphragm design for failsafe shutoff
- Inlet pressure rating 3,500 psig (20.7 MPag)
- SS 316L VAR
- Super alloy internals option
- Standard surface finish 10 Ra μ inch (0.25 μ m), 5 Ra μ inch (0.125 μ m) optional
- Two stage design eliminates supply pressure effect (SPE)
- Performance verified by automated functional testing
- True metal to metal seals to atmosphere
- 100% automated functional and He leak testing
- All manufacturing and testing to Pure T UHP semiconductor standards
- Face seal connection standard
- Installation and operating instructions posted to www.puretuhp.com in the Pure Tech section

Operating Parameters

Source pressure	vacuum to 3,500 psig (24.1 MPag)
Delivery pressure	W1703 1 to 30 psig (0.007 to 0.2 MPag) W1706 2 to 60 psig (0.014 to 0.4 MPag) W1710 2 to 100 psig (0.014 to 0.7 MPag)
First stage pressure	200 psig (1.37 MPag) nominal
Proof pressure	150% of operating pressures
Burst pressure	300% of operating pressures

Other Parameters

Inlet/outlet connectors	1/4 or 1/2 inch face seal
Flow coefficient (Cv)	0.15
Operating temperature	-30° to +70°C (-22° to +158°F)*
Surface finish	10 Ra μ inch (0.25 μ m) standard, 5 Ra μ inch (0.125 μ m) optional
Inboard leakage	1×10^{-10} sccs He
Outboard leakage	2×10^{-9} sccs He
Leakage across seat	He sniffer probe, no rise above background
Installation	surface or panel (optional)
Supply pressure effect	0.01 psig per 100 psig source pressure change

*VS option -10° to +90°C (14° to 194°F)

Materials

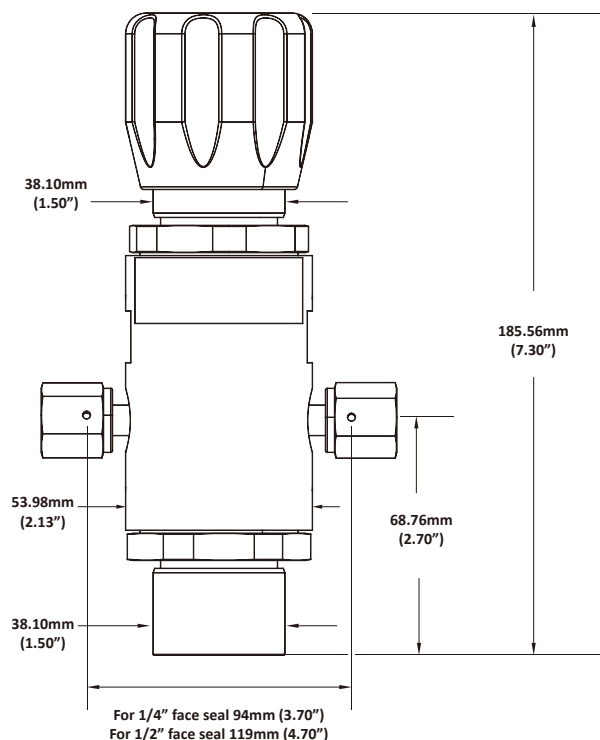
	Series W1700 SV	Series W1700 SVH
Wetted Parts		
Body	SS 316L VAR	SS 316L VAR
Poppet and diaphragm	SS 316L	NiCrMo alloy / UNS N06022
Finish	electropolished and passivated	electropolished and passivated
Seat	PCTFE (Polyimide optional)	PCTFE (Polyimide optional)

All specifications subject to change without notice



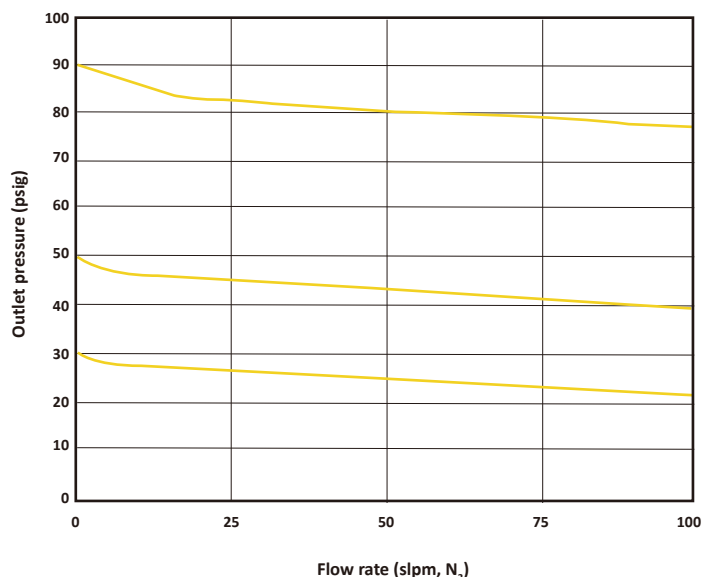
Purity, performance and reliability

Dimensional Information

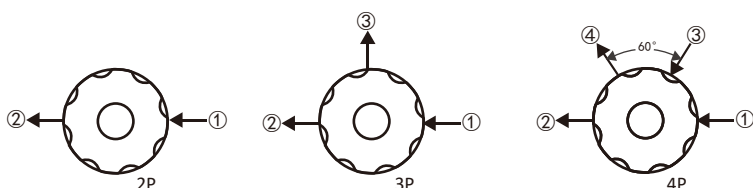


All dimensions in mm (inch). Inch dimensions are for reference only

W1700 flow curve with inlet 300 psig



Porting Configurations



Caution: The customer is entirely responsible for product selection and it should be based upon the customer's own analysis regardless of any recommendations, published or communicated, by Pure T. Products must also be installed, operated and maintained correctly for safe, problem-free usage.

Ordering Information

Model numbers W1700SV3PF4F4					
Model Pressure	Material	option ¹	Porting	Fittings	Options
W1703 = 1-30 psig W1706 = 2-60 psig W1710 = 2-100 psig	SV = 316L VAR	H = NiCrMo internals X = 5Ra	2P 3P 4P	F4 = 1/4 inch face seal female M4 = 1/4 inch face seal male F8 = 1/2 inch face seal female ² M8 = 1/2 inch face seal male ² Tube stubs available upon request	VS = Polyimide seat P = Panel mount ring ³ R = Captured vent ring ³ 109 = 109mm face to face for F4 x F4 and F4 / M4 combinations
1: Options listed in the order of H X 2: 1/2" face seal, ports 1 and 2 only 3: P and R options cannot be specified together					

Pure T has product options which are not shown in the data sheet. Please consult your local distributor or the factory directly regarding special requests.