

SERIES W500

SINGLE STAGE, FREE POPPET REGULATOR

Compact, mini regulator



- 15 slpm (0.53 scfm) flow capacity, HF option to 30 slpm (1.06 scfm)
- Inlet pressure rating 150 psig (1.0 MPag)
- SS 316L VAR construction
- Super alloy internals option
- Standard surface finish 10 Ra μ inch (0.25 μ m), 5 Ra μ inch (0.125 μ m) optional
- Sub atmospheric option for absolute pressure delivery
- Performance and functional testing automated
- 100% He leak tested
- All manufacturing and testing to Pure T UHP semiconductor standards
- Face seal and IGS (C & W seal) connection options
- Installation and operating instructions posted to www.puretuhp.com in the Pure Tech section

Operating Parameters

Source pressure	vacuum to 150 psig (1.0 MPag)
Delivery pressure W503 A	100 mm Hg absolute to 30 psig (0.2 MPag)*
W503	0.5 to 30 psig (0.0034 to 0.2 MPag)
W506	1 to 60 psig (0.007 to 0.4 MPag)
W510	1 to 100 psig (0.007 to 0.7 MPag)
W515	2 to 150 psig (0.014 to 1.0 MPag)
Proof pressure	150% of operating pressures
Burst pressure	300% of operating pressures

*Absolute pressure not available with HF option

Other Parameters

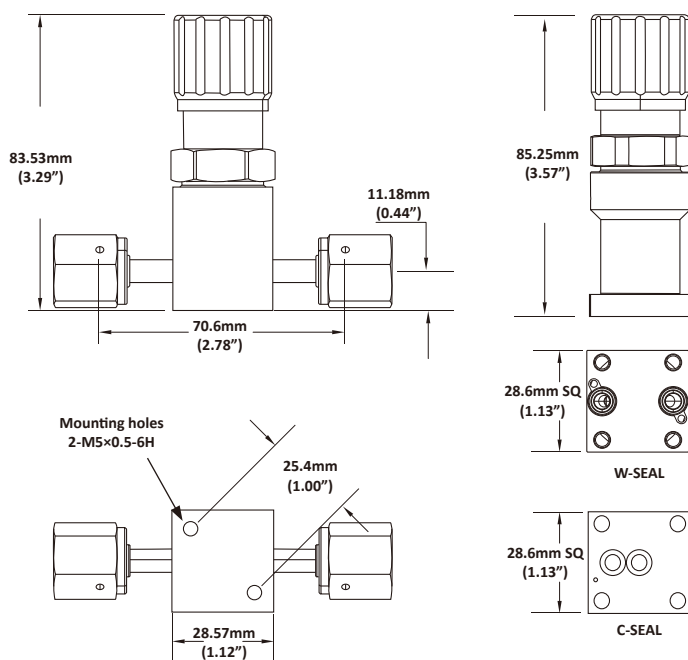
Connections	1/4 inch face seal or 1-1/8 inch C and W seal
Flow coefficient (Cv)	0.05 (0.15 HF option)
Operating temperature	-30° to +70°C (-22° to +158°F)
Surface finish	10 Ra μ inch (0.25 μ m) standard, 5 Ra μ inch (0.125 μ m) optional
Inboard leakage	1 x 10 ⁻¹⁰ sccs
Outboard leakage	2 x 10 ⁻⁹ sccs He at 100 psig inlet pressure
Leakage across seat	He sniffer probe, no rise above background
Supply pressure effect	0.20 psig per 20 psig source pressure change (0.4 psig per 20 psig source pressure change HF option)
Installation	surface

Materials

	Series W500 SV	Series W500 SVH
Wetted Parts		
Body	SS 316L VAR	SS 316L VAR
Poppet	SS 316L	NiCrMo alloy / UNS N06022
Diaphragm	Superalloy Cobalt/UNS R30003	Superalloy Cobalt/UNS R30003
Finish	electropolished and passivated	electropolished and passivated
Seat	PTFE	PTFE

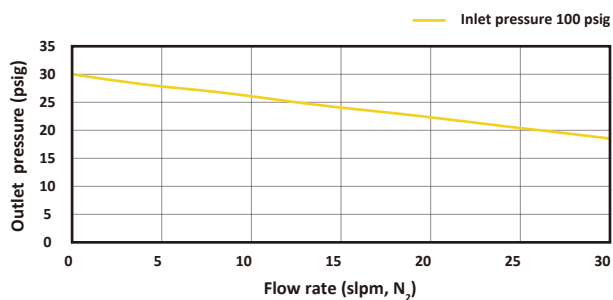
All specifications subject to change without notice

Dimensional Information

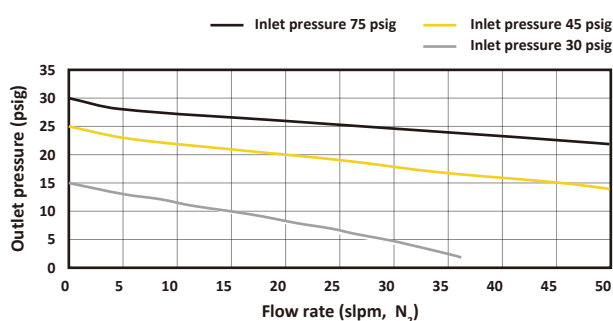


All dimensions in mm (inch). Metric dimensions are for reference only

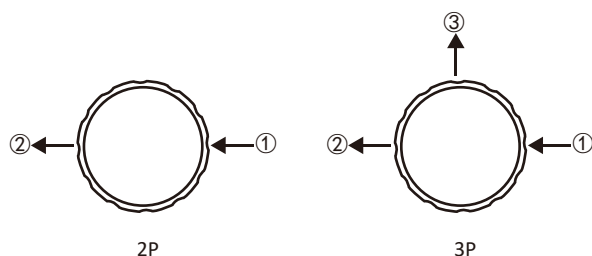
W500 flow curve



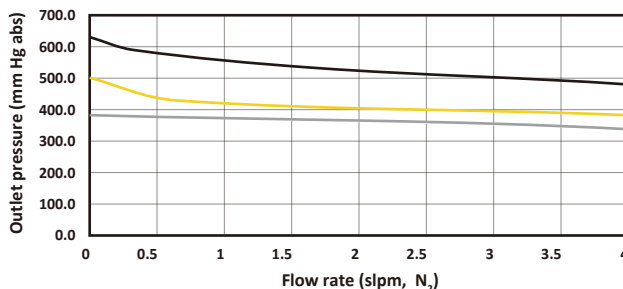
W500HF flow curve



Porting Configurations



W500A flow curve



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		W503SV2PF4F4			
Model Pressure	Material	Option ¹	Porting ³	Fittings	Option
W503 = 30 psig	SV = 316L VAR	H = NiCrMo internals	2P	F4 = 1/4 inch female face seal	HF = High flow
W506 = 60 psig		X = 5Ra	3P ⁴	M4 = 1/4 inch male face seal	
W510 = 100 psig		A = Absolute ²		WS = W seal	
W515 = 150 psig				CS = C seal	
Tube stubs available upon request					

- 1: Options listed in the order of H X A
- 2: A option requires 30 psig outlet range
- 3: Porting configuration numbers specify sequence of fittings in model number
- 4: 3P not available with WS and CS options

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.