

SERIES W1400

SINGLE STAGE, TIED DIAPHRAGM REGULATOR

Intermediate to high flow capacity



- Flow rates to 400 slpm (14 scfm) of N₂
- Tied diaphragm design for failsafe shutoff
- Inlet pressure rating 3,000 psig (20.7 MPag)
- SS 316L VAR or SS 316L construction
- Super alloy internals standard
- Standard surface finish 10 Ra μ inch (0.25 μm), 5 Ra μ inch (0.125 μm) optional
- Performance verified by automated functional testing
- True metal to metal seal to atmosphere
- 100% He leak tested
- Sub atmospheric option for absolute pressure delivery
- All manufacturing and testing to Pure T UHP semiconductor standards
- Face seal connection options
- Installation and operating instructions posted to www.puretuhp.com in the Pure Tech section

Operating Parameters

Source pressure	W1400 W1403 A	vacuum to 3,000 psig (20.7 MPag) vacuum to 300 psig (2.1 MPag)
Delivery pressure	W1403 A W1403 W1406 W1410 W1415	100 mm Hg absolute to 30 psig (0.2 MPag) 1 to 30 psig (0.007 to 0.2 MPag) 1 to 60 psig (0.007 to 0.4 MPag) 2 to 100 psig (0.014 to 0.7 MPag) 5 to 150 psig (0.034 to 1.0 MPag)
Proof pressure		150% of operating pressures
Burst pressure		300% of operating pressures

Other Parameters

Connections	1/4 or 1/2 inch face seal
Flow coefficient (Cv)	0.5
Operating temperature	-30° to +70°C (-22° to +158°F)*
Surface finish	10 Ra μ inch (0.25μm) standard, 5 Ra μ inch (0.125μm) optional
Inboard leakage	1 x 10 ⁻¹⁰ sccs
Outboard leakage	2 x 10 ⁻⁹ sccs He
Leakage across seat	He sniffer probe, no rise above background
Installation	surface or panel (optional)
Supply pressure effect	1.6 psig per 100 psig source pressure change

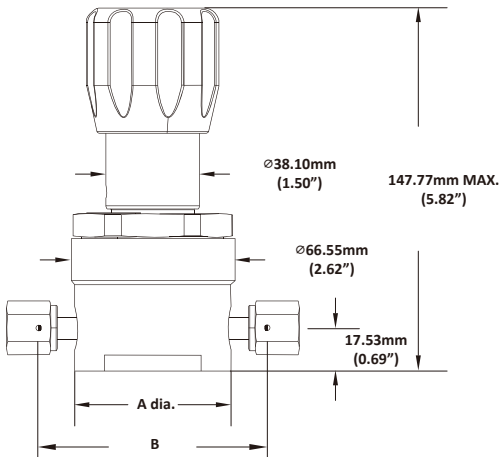
*VS option -10° to +90°C (14° to 194°F)

Materials

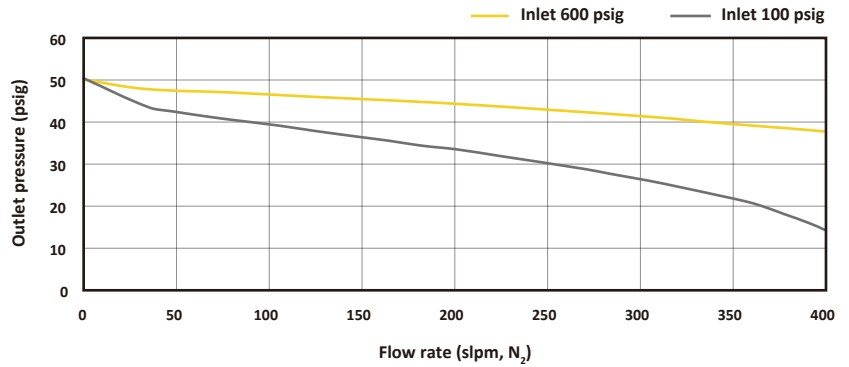
	Series W1400 SH	Series W1400 SVH
Wetted Parts		
Body	SS 316L	SS 316L VAR
Poppet, diaphragm	NiCrMo alloy / UNS N06022	NiCrMo alloy / UNS N06022
Finish	electropolished and passivated	electropolished and passivated
Seat	PCTFE (Polyimide & PTFE optional)	PCTFE (Polyimide & PTFE optional)

All specifications subject to change without notice

Dimensional Information



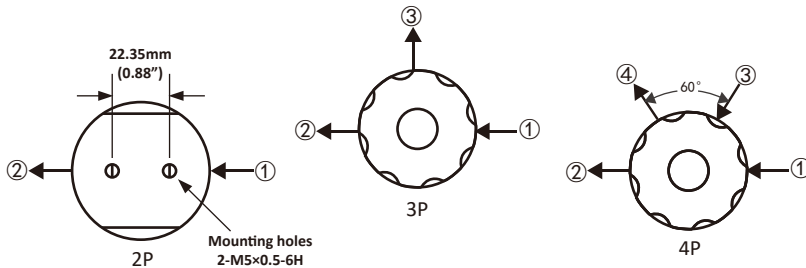
W1400 Flow curve



Face Seal	A dia.	B dia.
1/4" Male	64 mm (2.50")	102 mm (4.00" ±.02)
1/4" Female	64 mm (2.50")	94 mm (3.70" ±.02)
1/2"	64 mm (2.50")	133 mm (5.22" ±.03)

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

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 W1415SH2PF4F4					
Model Pressure	Material	Option ²	Porting ⁴	Fittings	Option
W1403 = 30 psig	SH = 316L	X = 5Ra	2P	F4 = 1/4 inch female face seal	VS = Polyimide seat
W1406 = 60 psig	SVH = 316L VAR	A = absolute ³	3P	M4 = 1/4 inch male face seal	P = Panel mount ring ⁵
W1410 = 100psig			4P	F8 = 1/2 inch female face seal	R = Captured vent ring ⁵
W1415 = 150 psig				M8 = 1/2 inch male face seal	F102 = 102mm face to face
W1425 = 250 psig ¹				Tube stubs available upon request	for F4 × F4 and F4 / M4 combinations

- 1: 250 psig outlet is preset only, set at 800 psig inlet
- 2: Options listed in the order of X A
- 3: A option requires O3 pressure range and reduces inlet pressure rating to 300 psig
- 4: Porting configuration numbers specify sequence of fittings in model number
- 5: 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.