



# SERIES AZ 1400T

## TIED DIAPHRAGM REGULATOR

Intermediate to high flow applications

- Single stage
- Stainless steel 316L
- Absolute sub-atmospheric option, flow rate to 6 slpm
- Cylinder or point of use specialty and bulk gases
- Flow rates to 600 slpm (21 scfm)
- Vacuum to 2,300 psig (159 bar) inlet  
HR option to 3,000 psig (207 bar)
- Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com) in the Tech Briefs section

### Operating Parameters

Source pressure	AZ 1400T	vacuum to 2,300 psig (159 bar)
	AZ 1400TA	vacuum to 300 psig (21 bar)
	AZ 1400T HR	vacuum to 3,000 psig (207 bar)
Delivery pressure	AZ 1402TA	100 mm Hg absolute to 30 psig (2 bar) (not available for HR)
	AZ 1402T	1 to 30 psig (0.07 to 2 bar) (not available for HR)
	AZ 1406T	1 to 60 psig (0.07 to 4 bar) (not available for HR)
	AZ 1410T	2 to 100 psig (0.14 to 7 bar)
	AZ 1415T**	5 to 150 psig (0.34 to 10 bar)
Proof pressure		4,000 psig (276 bar); HR option 4,500 psig (310 bar)
Burst pressure		8,000 psig (552 bar); HR option 9,000 psig (620 bar)

### Other Parameters

Inlet/outlet connectors	1/4, 3/8 or 1/2 inch face seal or tube weld
Flow coefficient (Cv)	0.45
Internal volume	1.06 in <sup>3</sup> (17.4 cm <sup>3</sup> )
Operating temperature	-40° to +160°F (-40° to +71°C)
Surface finish	10 µin. (0.25 µm) Ra avg. standard 25 µin. (0.62 µm) Ra avg. optional
Inboard leakage	2 x 10 <sup>-10</sup> sccs
Outboard leakage	2 x 10 <sup>-9</sup> sccs He
Leakage across seat	4 x 10 <sup>-8</sup> sccs He
Installation	surface or panel (optional)
Supply pressure effect	1.6 psig per 100 psig source pressure change

### Materials

Series AZ 1400T S	
Wetted Parts	
Body, nozzle	stainless steel 316L*
Diaphragm, poppet	Ni-Cr-Mo alloy / UNS N06022
Finish	electropolished and passivated
Seat	PCTFE (Polyimide optional)

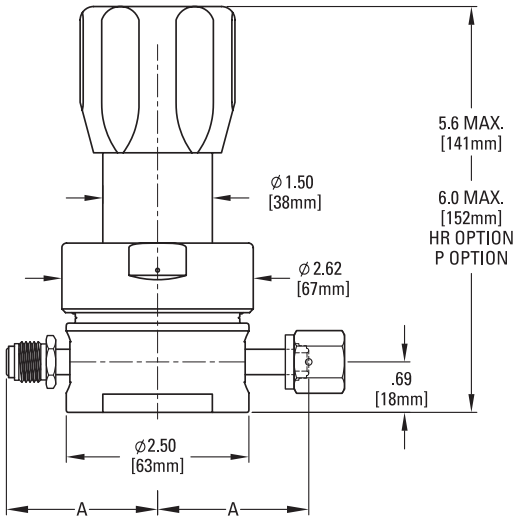
All specifications subject to change without notice.

\*Please refer to product note PN 414 regarding single melt 316L SS material.

\*\*AZ 1415T will not achieve full outlet pressure rating at all inlet pressures.

# ULTRACLEAN BY DESIGN

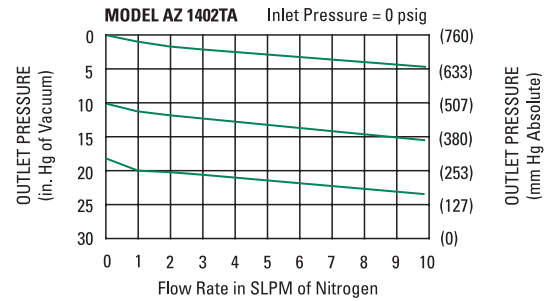
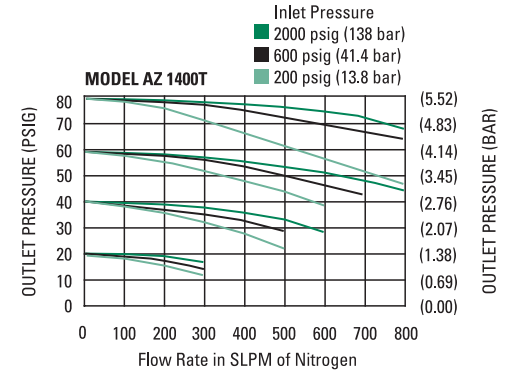
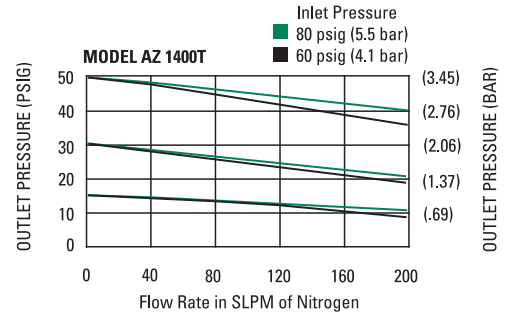
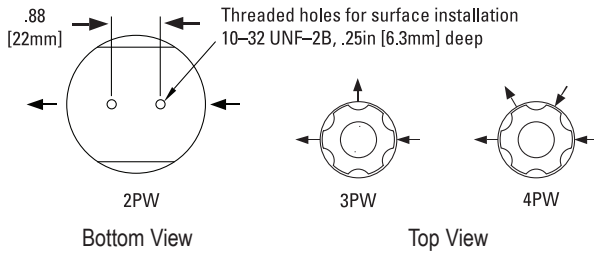
## DIMENSIONAL INFORMATION



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

Face Seal	A	
	in	mm
1/4"	2.15 ±.01	55
3/8", 1/2"	2.61 ±.02	66

## PORTING CONFIGURATIONS



**CAUTION: Product selection is the sole responsibility of the user, regardless of any recommendations or suggestions made by the factory. The user shall make selections based upon their own analysis and testing with regard to function, material compatibility and product ratings. Proper installation, operation and maintenance are also required to assure safe, trouble free performance.**

## ORDERING INFORMATION

Sample Order Number **AZ 1402TSQA 3PW FV4 FV4 V3**

**AZ 1402T | Series**  
 AZ 1402T = 1-30 psig (.07 to 2 bar)  
 AZ 1406T = 1-60 psig (.07 to 4 bar)  
 AZ 1410T = 2-100 psig (.14 to 7 bar)  
 AZ 1415T = 5-150 psig (.35 to 10 bar)

**S | Material**  
 S = Stainless steel (SHP)\*  
 \*S equivalent to SHP – stainless steel with Ni-Cr-Mo alloy poppet and diaphragm

**Q | Surface Finish Option**  
 Q = 25 µin. Ra avg.

**A | Range Options**  
 A = 100 mm Hg absolute to 30 psig (2 bar) (AP 1402T option only)

**3PW | Ports**  
 2PW = 2 ports butt weld  
 3PW = 3 ports butt weld  
 4PW = 4 ports butt weld

**FV4 FV4 | Connections Inlet / Outlet**

FV4 = 1/4 inch face seal female  
 MV4 = 1/4 inch face seal male  
 FV6 = 3/8 inch face seal female  
 MV6 = 3/8 inch face seal male  
 FV8 = 1/2 inch face seal female  
 MV8 = 1/2 inch face seal male

Tube weld stub available

**V3 | Gauges\*\* Source / Delivery**

0 = No gauge  
 V3 = 30-0-30 psig/bar  
 L = 30-0-60 psig/bar  
 1 = 30-0-100 psig/bar  
 2 = 0-200 psig/bar  
 4 = 0-400 psig/bar  
 10 = 0-1000 psig/bar  
 40 = 0-4000 psig/bar

\*\*Standard gauge ports are 1/4 inch face seal male (1/4 inch face seal female are available).

**| Options**

VS = Polyimide seat  
 HR = High inlet pressure  
 P = Panel installation\*\*\*

\*\*\*Panel hole 1.56" diameter.