



# SERIES SL 5800

## TIED DIAPHRAGM SPRINGLESS REGULATOR

Ultraclean technology backed by service and support

- Hot DI cleaned and baked
- 10 µin. surface finish (7 and 5 µin. optional)
- Low internal volume and surface area
- High flow rate applications with low delivery pressure
- Vacuum to 300 psig (21 bar) inlet
- Knob LOTO (refer to AP KL data sheet)
- Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com) in the Tech Briefs section

### Operating Parameters

Source pressure	vacuum to 300 psig (21 bar)
Delivery pressure	SL 5802 1 to 30 psig (0.07 to 2 bar)
	SL 5806 1 to 60 psig (0.07 to 4 bar)
	SL 5810 2 to 100 psig (0.14 to 7 bar)
Proof pressure	150% of operating pressures
Burst pressure	300% of operating pressures

### Other Parameters

Inlet /outlet connectors	1/4, 3/8 or 1/2 inch face seal or tube weld
Bonnet port	1/8 inch NPT
Flow coefficient (Cv)**	0.4
Internal volume	1.2 in <sup>3</sup> (19.7 cm <sup>3</sup> )
Operating temperature	-40° to +160°F (-40° to +71°C)*
Surface finish	10 µin (0.25 µm) Ra max standard; 7 µin (0.18 µm); and 5 µin (0.13 µm) optional
Inboard leakage	2 x 10 <sup>-10</sup> sccs
Outboard leakage	2 x 10 <sup>-9</sup> sccs He at 300 psig inlet pressure
Leakage across seat	4 x 10 <sup>-8</sup> sccs He at 100 psig inlet pressure
Installation	surface or panel (optional)
Supply pressure effect	5 psig per 100 psig source pressure change

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

\*\*A pressure regulator Cv is a nominal value which indicates the point of choked flow. Please refer to a flow curve or a recommendation guide for usable flow range.

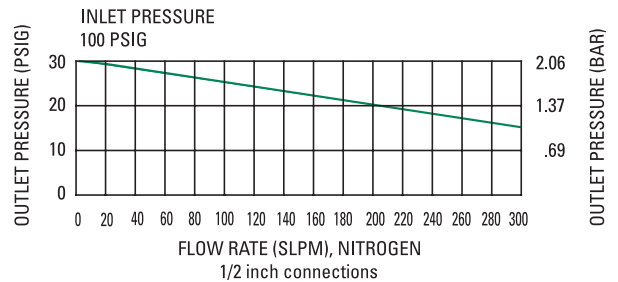
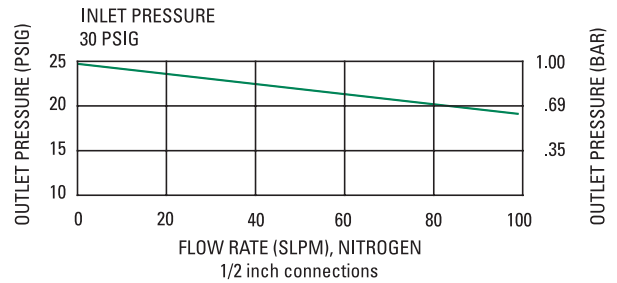
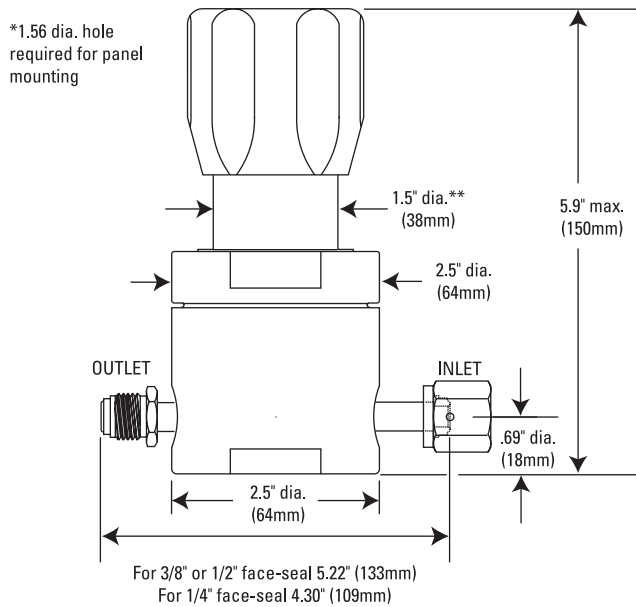
### Materials

Series SL 5800 S	
Type of Service	
Wetted Parts	
Body	stainless steel 316L secondary remelt
Poppet, diaphragm	SS 316L
Finish	electropolished and passivated
Seat	PCTFE (Polyimide optional)

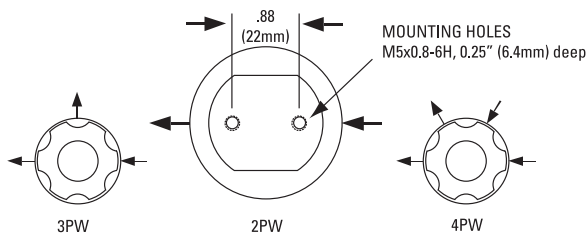
All specifications subject to change without notice.

# UNCOMPROMISING QUALITY, PERFORMANCE AND RELIABILITY

## DIMENSIONAL INFORMATION



## PORTING CONFIGURATIONS



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

**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

SL 5810SM 3PW FV4 FV4 1

SL 5810 | Series

SL 5802 = 1-30 psig (.07 to 2 bar)  
SL 5806 = 1-60 psig (.07 to 4 bar)  
SL 5810 = 2-100 psig (.14 to 7 bar)

S | Material

S = Stainless steel (SS)

M | Surface Finish Options

M = 10  $\mu$ m. Ra max (standard)  
V = 7  $\mu$ m. Ra max  
X = 5  $\mu$ m. Ra max

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

1 | 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

\* Gauge ports are standard with 1/4" face seal male.

Options

P = Panel installation\*\*  
VS = Polyimide seat  
KL = Knob LOTO  
(refer to AP KL data sheet)

AP Tech has product options and variations which are not documented in data sheets. If you have a model number that is not defined by the ordering information, please consult the factory or your local representative.

\*\*On panel mount option, bonnet port is not threaded. Panel hole 1.56" diameter.