# SPR860 Series

## Precision High Flow Regulator

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

## Customer Value Proposition:

The SPR860 regulator is designed with an internal servo that monitors upstream and downstream pressures. The internal servo compensates for fluctuations in delivery pressure and flow demand to maintain a constant pressure delivery. The outlet pressure can be maintained within 2 psig of its original setting as flow demand increases from zero to more than 500 slpm. The internal servo does not require an external pressure source nor bleeds to atmosphere.

## Contact Information:

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250 Canal Blvd
Richmond, California 94804

**phone 510 235 9590**
**fax 510 232 7396**
**veriflo.sales@parker.com**

www.parker.com/veriflo

## Product Features:

- External CDA source or a continuous bleed to atmosphere is not required to operate.
- 100% Helium Leak and functional tested.
- Minimal change in delivery pressure over large flow range.
- Cleaned and assembled to UHP standards.
- Electropolished and passivated post welding.

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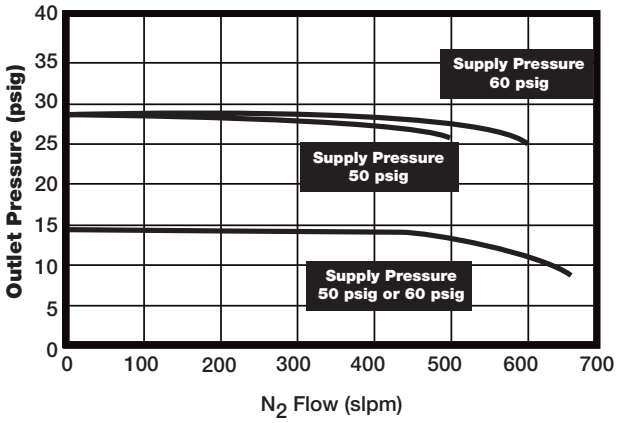
## Flow Curves

Additional flow curves available upon request

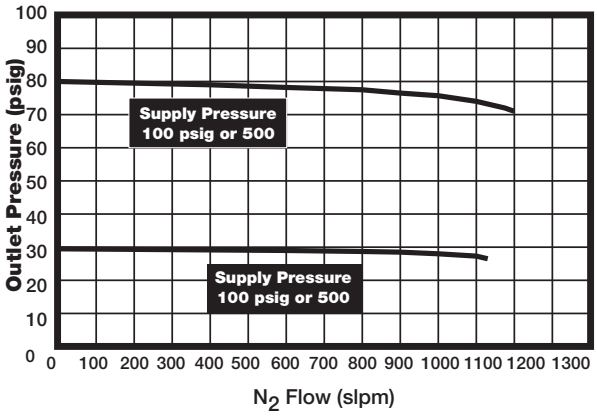
### SPR860

Range: 0-30 psig

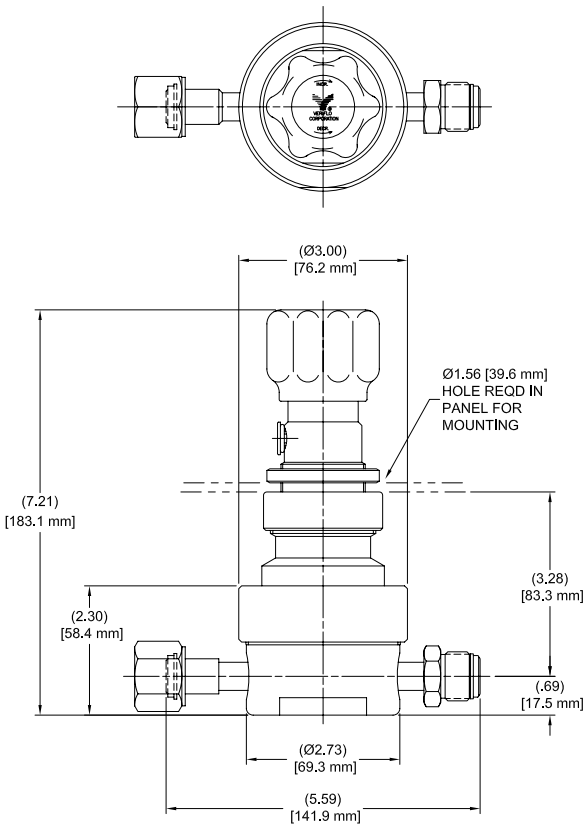



### SPR861

Range: 0-100 psig




## Dimensional Drawing




Safety Guide and Installation and Operating Instructions available at
**www.parker.com/veriflo**

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## Ordering Information

**Build an SPR860 Series regulator by replacing the numbered symbols with an option from the corresponding tables below.**

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Sample: | **SPR860** | **W** | **3P** | **V3** | **FS8** | **MMF** | **V** | **PM** |

Finished Order: **SPR860W3PV3FS8MMFVPM**

### 1 Basic Series

SPR860 = 0 - 30 psig
SPR861 = 0 - 100 psig
SPR862 = 0 - 150 psig

### 2 Body Material

W = Welded 316L Stainless Steel

### 3 Porting

2P = 2 Ports *No X required for gauges, Inlet & outlet ports only*
3P = 3 Ports *One X for gauge port*

*See Regulator Porting Guide for additional options and port layouts*

### 4 Outlet Gauge

V3 = -30 in Hg 0 - 30 psig
V1 = -30 in Hg 0 - 100 psig
V2 = -30 in Hg 0 - 200 psig
VX = -30 in Hg 0 - 150 psig
2 = 0 - 200 psig
X = No Gauge

*Additional ranges available upon request*

### 5 Port Style

FS = 1/4” Face Seal
FS8 = 1/2” Face Seal
FS12 = 3/4” Face Seal

### 6 Port Configuration

M = Male
F = Female
I = Internal Face Seal

*1/4” FS-M Gauge Ports are Standard*

### 7 Seal Material

K = Perfluoroelastomer (FFKM)
*200 psig max*
V = Fluorocarbon (FKM)
*500 psig max*

### 8 Optional Features

PM = Panel Mount

# SPR860 Series

## Specifications

| Materials of Construction | |
|---|---|
| ***Wetted*** | |
| Body | VeriClean™ 316L Stainless Steel |
| Diaphragm | 316L Stainless Steel and PTFE |
| Seat | 316L Stainless Steel |
| Seal | PCTFE |
| Poppet | 316L Stainless Steel |
| Poppet Spring | Hastelloy C-22® |
| Nozzle Assembly | |
| Nozzle Body | 316L Stainless Steel |
| Spring | 316 Stainless Steel |
| Seal Options | FFKM or FKM |
| Screen | 316L Stainless Steel |
| Retaining Ring | 15-7 PH |
| ***Non-wetted*** | |
| Cap | Nickel Plated Brass |
| Knob | ABS |

| Operating Conditions | |
|---|---|
| Maximum Inlet | 500 psig (30 barg) - *SPR860V Only* |
| | 200 psig (14 barg) - *SPR860K Only* |
| Outlet | 0-30 psig (2.07 barg)<br>0-100 psig (7 barg)<br>0-150 psig (10.35 barg) |
| Temperature | -40°F to 150°F (-40°C to 66°C) |

For additional information on materials of construction, functional performance and operating conditions, please contact factory.

| Functional Performance | |
|---|---|
| ***Design*** | |
| Burst Pressure | 1500 psig (103 barg) - *SPR860V Only* |
| | 600 psig (41.38 barg) - *SPR860K Only* |
| Proof Pressure | 750 psig (52 barg) - *SPR860V Only* |
| | 300 psig (20.7 barg) - *SPR860K Only* |
| ***Flow Capacity*** | $C_V$ 0.85 |
| ***Leak Rate*** | |
| Internal | Bubble Tight |
| External | $2 \times 10^{-9}$ scc/sec He<br>(Inboard Test Method) |
| ***Surface Finish*** | Standard Ra 15-20 micro inches |
| ***Supply Pressure Effect*** | 0.8 psig/100 psig (0.05 barg/7barg) |
| ***Internal Volume*** | 51cc |
| ***Approx. Weight*** | 2.5 lbs. (1.2 kg) |

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