“Go Brighter. Go Neon.”

Series 20
Pressure regulator

Features and Benefits

- 316L stainless steel standard construction
- 316L stainless steel diaphragm
- Optional panel mount
- Minimal droop with large flow increases
- Extreme sensitivity with low Cv options
- Outlet ranges of up to 500 psig
- 1/8" to 1/2" connection options
- Max Cv of 1.12, Min Cv of 0.03
Designed for applications with low inlet pressures or higher flows, the Series 20 can handle inlet pressures as high as 6000 psig. Even with large changes of flow, the regulator can closely hold to its set outlet pressure, making this regulator a good choice as a primary regulator feeding another downstream regulator.

When used with optional low Cv values the Series 20 becomes a super-sensitive regulator, where the high diaphragm to Cv ratio gives excellent control, even to very low pressures in inches of water column.

Designed to offer many choices to match your specific needs, the Series 20 is available in different body materials, Cv values, porting options, and seat materials. Contact one of our specialists for help in finding the right regulator for your requirements.

Specifications
For questions about this product, please contact Neon Controls.

**Operating Parameters**
Pressure rating per criteria of CGA E-4; ASME B31; ASME BPVC

**Maximum Inlet Pressure**
6000 psig / 415 Bar

**Maximum Outlet Pressure**
- 2, 10, 25, 50, 100, 250, 500 psig
- 70, 175, 345, 690, 1725, 3450, 5170, 6895 kPa
- .7, .2, 4, 7, 20, 35, 50, 70 Bar

**Design Proof Pressure**
150% of rated pressure

**Leakage**
- Internal: Bubble tight
- External: Designed to meet < 2 x 10^-8 atm/cc He

**Operating Temperature**
-40°F to 185°F / -40°C to 85°C

**Flow Capacity**
0.03, 0.07, 0.24, 0.3, 0.35, 0.58, 1.12

**Wetted Materials**
- **Body**: 316L Stainless Steel. Others upon request
- **Filter**: 10 micron 316L Stainless Steel
- **Seat**: PCTFE, PEEK, Teflon, Tefzel, Viton
- **Diaphragm**: 316L Stainless Steel with Teflon liner
- **Spring Housing**: 316L Stainless Steel
- **Remaining Parts**: Inconel

NeonControls.com
Subject to change without notice.
**Supply Pressure Effect**

![Graph showing supply pressure effect with various outlet pressures.]

- **Outlet Pressure**
  - 0.0
  - 20.0
  - 40.0
  - 60.0
  - 80.0

- **Inlet Pressure**
  - 1000
  - 900
  - 800
  - 700
  - 600
  - 500
  - 400
  - 300
  - 200

**Pressure and Temperature Rating for Seats**

<table>
<thead>
<tr>
<th>Code</th>
<th>Material</th>
<th>Pressure in PSI Minimum</th>
<th>Pressure in PSI Maximum</th>
<th>Temperature Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>PCTFE</td>
<td>10</td>
<td>3600</td>
<td>150°F</td>
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<tr>
<td>Z</td>
<td>TEFZEL</td>
<td>10</td>
<td>2400</td>
<td>150°F</td>
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<tr>
<td>K</td>
<td>PEEK</td>
<td>50</td>
<td>6000</td>
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<tr>
<td>K</td>
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<td>50</td>
<td>3600</td>
<td>250°F</td>
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<td>150°F</td>
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<tr>
<td>V</td>
<td>Viton</td>
<td>10</td>
<td>300</td>
<td>250°F</td>
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</table>

**Special Options**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Outlet valve - packed</td>
</tr>
<tr>
<td>16</td>
<td>Outlet valve - packless</td>
</tr>
<tr>
<td>73</td>
<td>Helium Leak Test</td>
</tr>
<tr>
<td>74</td>
<td>Liquid Service Filter</td>
</tr>
</tbody>
</table>

*For other options contact factory*

**Shipping Weight:** 4 lbs / 1.9 Kg
How To Videos
Available 24/7
Smartphone & Tablet Compatible
http://youtube.com/neoncontrols

Warranty

Precision Instrumentation warrants each Neon regulator to be free from defects in materials and workmanship for two years after manufacture date.

In the unlikely event that a Neon regulator is defective in workmanship or materials, Precision Instrumentation will, at its discretion, repair or replace the regulator free of charge.

The selling distributor must process all warranty claims. If the original purchaser suspects a defect in a Neon regulator, the regulator, together with proof of purchase, must be returned to the selling distributor for evaluation and disposition.

This warranty applies only under conditions of use for which each regulator is designed and does not cover cosmetic damage or damage due to misuse, abuse, neglect, accident, improper installation, or acts of God. This warranty does not extend to or apply to any regulator that has been repaired or altered by any party other than Precision Instrumentation or its authorized distributors.

This warranty is in lieu of and excludes all other warranties, expressed or implied, including the warranties of merchantability and fitness for a particular purpose. Precision Instrumentation will not be liable for any special or consequential damages, or for any loss, damage or expense directly or indirectly arising from use of or inability to use any regulator, either separately or in combination with any other equipment or material, or from any other case.

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