Series 87 Protocol Station
Two stage cylinder regulator

**Typical Applications**
- Laboratory and Point-of-Use Gas systems in pharmaceutical, food and beverage, and other high purity gas applications
- Process analyzer gases, metal fabrication, petrochemical, and specialty industrial gas cylinders

**Features and Benefits**
The Series 87 Protocol Station is a wall mount system designed to mount any Neon Controls high purity pressure regulator to a wall or strut system. Wall mounting provides ease of use, prevents damage to the regulator, and improves safety.
The Neon Controls Series 87 protocol station includes a Neon Controls regulator, a nipple, and a 316L stainless steel cross all mounted on a heavy duty bracket. The cross has three open ports all connected to the inlet of the regulator. Typically, one port is used for a flexible armored hose with check valve and CGA, which is connected to a gas cylinder. Other ports can be used for a purge connection, pressure indicator, switch, or are just plugged off for future use.

The station can be configured for either horizontal or vertical mounting. The diagram below is the typical horizontal configuration. When done vertically the regulator is mounted on the top, with the cross on the bottom. The nipple goes to an inlet port 90° from the normal regulator input port, which is plugged.

### 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, 750, 1000 psig, 70, 175, 345, 690, 1725, 3450, 5170, 6895 kPa
- **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, 0.30, 0.35, 0.58

**Wetted Materials**

- **Body**: Brass, 316L Stainless Steel, Electroless Nickel Plated Brass
- **Seat**: Tefzel, Peek, PCTFE (standard), Vespel
- **Filter**: 10 micron 316L Stainless Steel
- **Seal**: Teflon, Viton
- **Diaphragm**: 316L Stainless Steel with Tefzel Sealing Ring
- **Spring Housing**: 316L Stainless Steel, Electroless Nickel Plated Aluminum, Black Anodized Aluminum
- **Remaining Parts**: Inconel

All measurements in inches.
SERIES 87
Supply Pressure Effect

Outlet Pressure
10 20 30 40 50 60 70

Outlet Pressure (PSIG)
0 25 50 75 100 125 150 175 200 225 250 275 300 325 350 375

Flow in L/MIN Air
500 1000 2000

Regulator Porting Configuration

(Chart A)

Many other porting configurations available

Cross Porting

Regulator Input

Special Options

For other options contact factory

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>
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<tr>
<td>F</td>
<td>PCTFE</td>
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<td>3600</td>
<td>150°F</td>
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<tr>
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<td>TEFZEL</td>
<td>10</td>
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<td>150°F</td>
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<td>500°F</td>
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</tbody>
</table>

Shipping Weight: 8 pounds
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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