Spec Master HP600 Series
6.0 Nickel Plated Brass Barstock Regulator

Spec Master HP600 Series regulators are intended for primary pressure gas control of:

- **Non-Corrosive**
- **High Purity gases** (up to 6.0 Grade)

The Spec Master HP600 series regulators are intended for primary pressure gas control of non-corrosive, high purity gases, up to 6.0 purity grade.

**HPS600 Series** –
Nickel Plated Brass Single Stage Regulator for applications where slight pressure variance in delivery pressure is acceptable (as cylinder pressure decreases)

**HPT600 Series** –
Nickel Plated Brass Two Stage Regulator for applications where constant pressure is required (as cylinder pressure decreases)

**HPL600 Series** –
Nickel Plated Brass Line Regulator for gas applications, for distribution systems (pipelines)
**Spec Master HP600 Series**

**6.0 Nickel Plated Brass Barstock Regulator**

### Typical Applications
- Gas chromatography
- High purity carrier gases
- Zero, span and calibration gases
- Toxic and corrosive gases
- High purity chamber pressurization

### Materials

<table>
<thead>
<tr>
<th>Part</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>Nickel Plated Brass Barstock</td>
</tr>
<tr>
<td>Bonnet</td>
<td>Nickel Plated Brass Barstock</td>
</tr>
<tr>
<td>Seat</td>
<td>PCTFE</td>
</tr>
<tr>
<td>Diaphragm (regulator)</td>
<td>316L Stainless Steel</td>
</tr>
<tr>
<td>Piston (regulator)</td>
<td>Nickel Plated Brass</td>
</tr>
<tr>
<td>Seals</td>
<td>PTFE</td>
</tr>
<tr>
<td>Filter</td>
<td>10 Micron sintered 316L Stainless Steel</td>
</tr>
</tbody>
</table>

### Features
- Six port configuration
- Front and rear panel mounting capabilities
- Encapsulated seat design
- Low wetted surface area
- Full range of inlet and outlet fittings
- Fitted pressure relief valve
  - (Single and Two stage regulators)
- Optional captured bonnet vent kit

### Specification
- **Maximum Inlet Pressure**: 60 bar (870 psig), 207 bar (3000 psig), 300 bar (4350 psig)*
- **Delivery Pressure Range psig**: 0-22 psig, 0-50 psig, 0-90 psig, 0-150 psig, 0-725 psig
- **Delivery Pressure Range bar**: 0-1.5 bar, 0-3.5 bar, 0-6 bar, 0-10 bar, 0-50 bar
- **Gauges**: 50mm (2") diameter stainless steel, snap-on tamper proof lens
- **Ports**: 1/4" NPT Female
- **Temperature Range**: -40°C to +60°C (-40 F to 140°F)
- **Helium Leak Integrity**: 1 X 10⁻⁸ scc/sec
- **Flow Coefficient**:
  - SGS / SGL\(\frac{C_v}{C_v} = 0.094\)\(C_v = 0.078\)
  - SGT\(\frac{C_v}{C_v} = 0.088\)\(C_v = 0.072\)
- **Ports**: 1/4" NPT Female
- **Weight**:
  - HPL600 1.0kg (2.2lb) / SGS600 1.1kg (2.5lb) / SGT600 1.5kg (3.5lb)
  - HPL620 1.2kg (2.7lb) / SGS620 1.3kg (2.8lb) / SGT620 1.8kg (4.0lb)

*Single and Two Stage regulators with no fitting fitted in to the regulator

**Single Stage Regulator**

**HP600 Series** – Single Stage diaphragm regulator with relief valve

**Two Stage Regulator**

**HP600 Series** – Two Stage diaphragm regulator with relief valve

**Line Regulator**

**HP600 Series** – Line regulator with no relief valve
Spec Master HP600 Series
6.0 Nickel Plated Brass Barstock Regulator

FLOW PERFORMANCE

HPS600-03-05-03-03-102-01-FG

PRODUCT MODEL
HPS600
HPS620

DELIVERY PRESSURE
02 870 psi
03 3000 psi
04 4350 psi

INLET PRESSURE
05 0-150 psi
07 0-100 psi
10 0-725 psi

DELIVERY GAUGE UNIT
00 No Gauge
03 BarPSI
03 Bar(PSI)

INLET GAUGE UNIT
00 No Gauge
03 BarPSI
03 Bar(PSI)

INLET FITTINGS
00 No Inlet Fittings
01 1/8" Compression Tube Brass
03 1/4" Compression Tube Brass

OUTLET FITTINGS
00 No Outlet Fittings
01 1/8" Compression Tube Brass
03 1/4" Compression Tube Brass

OPTIONS
A No Options
F Bonnet Captured Vent Kit
G Helium Leak Test Certification
L Compliance Certificate
M Panel Mount Locking Nut (2 units)
N With Out Relief Valve

Rules:
HPS600 1) Model number for delivery pressures up to 150 psi
HPS620 1) Model number for 300 and 725 psi delivery pressure
HPS600 & HPS620 1) Inlet Pressure of 4350 psi (option 4) only available with no inlet fitting (option 00 - inlet fittings) and option N (with out relief valve - options) not available

U.S. Customer Care: 1-800-569-0547
Canada Customer Care: 1-905-827-4515
## Spec Master HP600 Series
### 6.0 Nickel Plated Brass Barstock Regulator

#### MODEL NO. SELECTOR GUIDE

### HPT600-03-05-03-03-102-01-FG

<table>
<thead>
<tr>
<th>PRODUCT NO.</th>
<th>PRODUCT RANGE</th>
<th>INLET PRESSURE</th>
<th>DELIVERY PRESSURE</th>
<th>DELIVERY PRESSURE GAUGE UNIT</th>
<th>INLET FITTINGS</th>
<th>OUTLET FITTINGS</th>
<th>OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPT600</td>
<td>6000 psi</td>
<td>02</td>
<td>0-22 psi</td>
<td>No Gauge</td>
<td>00 No Inlet Fittings</td>
<td>00 No Outlet Fittings</td>
<td>A No Options</td>
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<tr>
<td>HPT620</td>
<td>3000 psi</td>
<td>03</td>
<td>0-30 psi</td>
<td>Brass PSI</td>
<td>01 1/4&quot; Compression Tube Brass</td>
<td>01 1/4&quot; Compression Tube Brass</td>
<td>F Bonnet Captured Vent Kit</td>
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<tr>
<td></td>
<td></td>
<td>04</td>
<td>0-40 psi</td>
<td>Plated Brass</td>
<td>03 1/4&quot; Compression Tube Brass</td>
<td>03 1/4&quot; Compression Tube Brass</td>
<td>G Helium Leak Test Certification</td>
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<tr>
<td></td>
<td></td>
<td>07</td>
<td>0-200 psi</td>
<td></td>
<td>08 1/4&quot; MPT Male Brass Plated</td>
<td>08 1/4&quot; MPT Male Brass Plated</td>
<td>L Compliance Certificate</td>
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<tr>
<td></td>
<td></td>
<td>10</td>
<td>0-725 psi</td>
<td></td>
<td>09 1/4&quot; Compression Tube Brass</td>
<td>09 1/4&quot; Compression Tube Brass</td>
<td>M Panel Mount Locking Nut (2 units)</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>10 1/4&quot; MPT Male Brass Chrome Plated</td>
<td>10 1/4&quot; MPT Male Brass Chrome Plated</td>
<td>N With Out Inlet Valve</td>
</tr>
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#### HPT600 Rules:
- HPT600 1) Model number for delivery pressures up to 150 psi
- HPT620 1) Model number for 300 and 725 psi delivery pressure
- HPT600 & HPS620 1) Inlet Pressure of 4350 psi (option 4) only available with no inlet fitting (option 00 - inlet fittings) and option N (with out relief valve – options) not available

### HPL600-03-02-00-03-000-01-FG

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#### HPL600 Rules:
- HPL600 1) Model number for delivery pressures up to 150 psi
- HPL620 1) Model number for 300 and 725 psi delivery pressure
- All line regulators are supplied with no relief valve fitted

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**Rules:**
- **HPL600**: 1) Model number for delivery pressures up to 150 psi
- **HPL620**: 1) Model number for 300 and 725 psi delivery pressure
- **HPT600 & HPS620**: 1) Inlet Pressure of 4350 psi (option 4) only available with no inlet fitting (option 00 – inlet fittings) and option N (with out relief valve – options) not available

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**Canada Customer Care:** 905-827-4515  
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