**R119 Pilot Operated Regulators**

**Features**
- Adapted for Control by a Remote or Distant Small Pilot Regulator. Ideal for Maximum Capacity Requirements in Applications where Units are Not Readily Accessible
- High Flow Performance Featuring Rugged Design for the Most Demanding Applications
- Ideal for Those Installations Calling for Constant Pressure with Wide Variation in Flow
- Diaphragm Operated Design with Balanced Poppet and Constant Bleed Pilot for Quick and Accurate Regulation.
- Secondary Aspiration Plus Balanced Poppet Provides Quick Response and Accurate Pressure Regulation
- Reverse Flow Version Available
- High Flow: 3/4", 1" - 300 SCFM\(^\text{g}1\), 1-1/4" & 1-1/2" - 380+ SCFM\(^\text{g}1\)

<table>
<thead>
<tr>
<th>Port Size</th>
<th>NPT Relieving</th>
<th>BSPP Relieving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without Gauge 0-125 PSIG Reduced Pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>R119-06J</td>
<td>R119G06J</td>
</tr>
<tr>
<td>1&quot;</td>
<td>R119-08J</td>
<td>R119G08J</td>
</tr>
<tr>
<td>1-1/4&quot;</td>
<td>R119-10J</td>
<td>R119G10J</td>
</tr>
<tr>
<td>1-1/2&quot;</td>
<td>R119-12J</td>
<td>R119G12J</td>
</tr>
</tbody>
</table>

**Ordering Information**

R 119 — 06 J /**

- **Port Threads**
  - NPT
  - G BSPP
- **Port Size**
  - 06 3/4 Inch
  - 08 1 Inch
  - 10 1-1/4 Inch
  - 12 1-1/2 Inch
- **Reduced Pressure Range**
  - J Air Pilot Operated
- **Options**
  - K Non-Relieving
  - X64 Fluorocarbon O-Rings and Diaphragm
  - X71 Non-Bleed Pilot (For use with Electronic Controllers)
  - X7† Brass Bottom Plug

**WARNING**
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.
Product rupture can cause serious injury.

\(\text{SCFM} = \text{Standard cubic feet per minute at 100 PSIG inlet,}
\)
\(75 \text{ PSIG no flow secondary setting, and 20 PSIG pressure drop.}\)

\(\text{inches} (\text{mm})\)

\(\text{Bold items are Most Popular.}\)

For other models refer to ordering information below.

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Pneumatic Division
Richland, Michigan
www.wattsfluidair.com

B32
Technical Information

R119 Series
Pilot Operated Regulators

Flow Characteristics
R119-06J

Secondary Pressure - bar
0 1 2 3 4 5 6
Flow - SCFM
0 50 100 150 200 250 300 350
Flow - dm³/s
0 1 2 3 4 5 6

Secondary Pressure - PSI
0 1 2 3 4 5 6
Flow - SCFM
0 50 100 150 200 250 300 350
Flow - dm³/s
0 1 2 3 4 5 6

3/4 Inch Ports
100 PSIG (6.9 bar) Primary Pressure

Flow Characteristics
R119-08J

Secondary Pressure - bar
0 1 2 3 4 5 6
Flow - SCFM
0 50 100 150 200 250 300 400
Flow - dm³/s
0 1 2 3 4 5 6

Secondary Pressure - PSI
0 1 2 3 4 5 6
Flow - SCFM
0 50 100 150 200 250 300 400
Flow - dm³/s
0 1 2 3 4 5 6

1 Inch Ports
100 PSIG (6.9 bar) Primary Pressure

Flow Characteristics
R119-10C

Secondary Pressure - bar
0 1 2 3 4 5 6
Flow - SCFM
0 100 200 300 400 500
Flow - dm³/s
0 1 2 3 4 5 6

Secondary Pressure - PSI
0 1 2 3 4 5 6
Flow - SCFM
0 100 200 300 400 500
Flow - dm³/s
0 1 2 3 4 5 6

1-1/4 Inch Ports
100 PSIG (6.9 bar) Primary Pressure

Flow Characteristics
R119-12C

Secondary Pressure - bar
0 1 2 3 4 5 6
Flow - SCFM
0 100 200 300 400 500
Flow - dm³/s
0 1 2 3 4 5 6

Secondary Pressure - PSI
0 1 2 3 4 5 6
Flow - SCFM
0 100 200 300 400 500
Flow - dm³/s
0 1 2 3 4 5 6

1-1/2 Inch Ports
100 PSIG (6.9 bar) Primary Pressure

R119 Regulator Kits & Accessories

Gauges –
2" Dial Size, 1/4" Back Connection
0 to 60 PSIG (0 to 400 kPa) .................. K4520N14060
2" Dial Size, 1/4" Back Connection
0 to 160 PSIG (0 to 1100 kPa) ............. K4520N14160
2" Dial Size, 1/4" Back Connection
0 to 300 PSIG (0 to 2068 kPa) .......... K4520N14300

Repair Kits –
Non-Relieving Diaphragm,
Valve Assembly (3/4", 1") .................. RK118X20B
Non-Relieving Diaphragm,
Valve Assembly (1-1/4", 1-1/2") .......... RK118X20D
Relieving Diaphragm,
Valve Assembly (3/4", 1") .................. RK119X20B
Relieving Diaphragm,
Valve Assembly (1-1/4", 1-1/2") ........... RK119X20D
For Fluorocarbon Repair Kits, add X64 to Kit Number suffix.

Specifications

Gauge Ports (2) ................................................. 1/4 Inch
Port Threads .................................................. 3/4, 1, 1-1/4, 1-1/2 Inch

Reduced Pressure Range –
Adjustable to Within 5 to 7 PSIG of Supply Pressure

Supply Pressure .................. 300 PSIG Maximum (20.4 bar)

Air Consumption –
Constant bleed from air pilot chamber: approx 0.17 SCFM (10 SCFH)

Temperature Rating .................. 40°F to 125°F (4.4°C to 52°C)

Weight –
R119-06J, R119-08J ................. 5.2 lb. (2.36 kg) / Unit
R119-10, R119-12 ......................... 5.6 lb. (2.54 kg) / Unit
R119-10J, R119-12J ..................... 46 lb. (20.87 kg) / 8-Unit Master Pack
R119-10J, R119-12J ..................... 6 lb. (0.87 kg) / 8-Unit Master Pack

Materials of Construction

Body, Ring, Top Plate ................. Zinc
Bottom Plug ........................................ Nylon
Innervalve ........................................ Brass
Seals ........................................ Buna N