Series W-M115 Thread BSPT (DN32-DN50)
Series W-M115 Flange (DN50-DN300)

Pressure Reducing Valve

**Application:**
The Watts W-M115 Pressure Reducing Valve is designed to adjust, set and maintain downstream pressure of pipeline. It’s generally used in city water supply, industrial and agricultural water transmission pipeline, etc.

**Features:**
1. Stable performance, safe and reliable.
2. Simple operation, convenient adjusting.
3. Precise pressure reducing.
4. Long service life.

**Operating Principles:**
The Watts ACV Pressure Reducing Control Valve is designed to automatically reduce a fluctuating higher upstream pressure to a constant lower downstream pressure regardless of varying flow rates. It is controlled by a normally open, pressure reducing pilot designed to: 1) Open (allowing fluid out of the main valve cover chamber) when downstream pressure is below the adjustable setpoint, and 2) Close (allowing fluid to fill the main valve cover chamber) when downstream pressure is above the adjustable setpoint. A decrease in downstream pressure causes the valve to modulate toward an open position, raising downstream pressure. An increase in downstream pressure causes the valve to modulate toward a closed position, lowering downstream pressure.

**Technical Specification:**
- **Nominal Diameter:** DN32~DN300
- **Maximum Pressure:** PN16/CL150/CL300
- **Working Temperature:** 0°C~80°C
- **Fluid Medium:** Water
- **Test Standard:** ISO/DIS 5208:2007
- **Pressure Reducing Range:**
  - Optional 20Psi~175Psi (0.137MPa~1.2Mpa)
  - 30Psi~300Psi (0.206MPa~2.06Mpa)
- **Standard pressure setting:** 50Psi (0.35MPa)
- **Connection Type:** Thread / Flanged
- **Connection Standard:** CL 300 BSPT to ISO 7-1
  - PN16 to BS EN 1092-2
  - CL150 to ANSI B16.42
  - CL300 to ANSI B16.42
**Component Material:**

- **Body/Bonnet:** Ductile iron with epoxy resin, NSF certified coating.
- **Stem/Seat:** Stainless steel
- **Diaphragm:** NBR+Nylon
- **Seal ring:** NBR

**Installation Dimensions:**

**Connection Dimension:** PN16 to BS EN 1092-2

<table>
<thead>
<tr>
<th>Size (DN)</th>
<th>Dimensions (mm)</th>
<th>Flange Dimensions (mm)</th>
<th>Weight (Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L</td>
<td>H</td>
<td>H1</td>
</tr>
<tr>
<td>32 BSPT</td>
<td>184</td>
<td>305</td>
<td>271</td>
</tr>
<tr>
<td>40 BSPT</td>
<td>184</td>
<td>305</td>
<td>271</td>
</tr>
<tr>
<td>50 BSPT</td>
<td>238</td>
<td>315</td>
<td>268</td>
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<tr>
<td>50</td>
<td>230</td>
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<td>65</td>
<td>290</td>
<td>343</td>
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<td>80</td>
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<td>395</td>
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<td>125</td>
<td>400</td>
<td>413</td>
<td>288</td>
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<tr>
<td>150</td>
<td>480</td>
<td>430</td>
<td>288</td>
</tr>
<tr>
<td>200</td>
<td>600</td>
<td>540</td>
<td>370</td>
</tr>
<tr>
<td>250</td>
<td>660</td>
<td>650</td>
<td>450</td>
</tr>
<tr>
<td>300</td>
<td>762</td>
<td>755</td>
<td>520</td>
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</table>

*Please contact the local salesmen if the size ≥DN300 are needed.

**Flow Rates:**

<table>
<thead>
<tr>
<th>Size (DN)</th>
<th>32</th>
<th>40</th>
<th>50</th>
<th>65</th>
<th>80</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Continuous (GPM)</td>
<td>95</td>
<td>130</td>
<td>210</td>
<td>300</td>
<td>485</td>
<td>800</td>
<td>1850</td>
<td>3100</td>
<td>5000</td>
<td>7000</td>
</tr>
<tr>
<td>Maximum Intermittent (GPM)</td>
<td>119</td>
<td>161</td>
<td>265</td>
<td>390</td>
<td>590</td>
<td>1000</td>
<td>2300</td>
<td>4000</td>
<td>6250</td>
<td>8725</td>
</tr>
<tr>
<td>Minimum Continuous (GPM)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>20</td>
<td>30</td>
<td>50</td>
<td>115</td>
<td>200</td>
<td>300</td>
<td>400</td>
</tr>
</tbody>
</table>

*NOTE:* The above chart is a suggested guide. Inlet pressure, outlet pressure, minimum, normal, and maximum flow rates should be considered for specific valve sizing. Contact Watts ACV details.

Watts product specifications in metric units are provided for reference only. For precise measurements please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.
Cavitation Chart:
After selecting the valve size, locate inlet and outlet pressure on this chart. If the intersection point falls in the shaded area, cavitation can occur. Operation of valves continually in the cavitation zone should be avoided. Consult Watts ACV for alternatives.

Typical Application:
1. Water plant and water source project.
2. Environmental protection.
3. Municipal facilities.
4. Electric power and utilities.
5. Construction industry.
Installation Instructions:

(1) The installer must be trained or experienced so as to operate the installation correctly.

(2) Water supply pipe network should be washed before pressure reducing valve installation, eliminating sand, gravel and other debris in the pipe.

(3) The flow direction from inlet to outlet should be paid attention to in installation, and maintenance space around the valve is convenient to assemble.

(4) For the size below DN150, the main valve can be installed horizontally or vertically, but horizontal installation is better. The size above DN150 only can be installed horizontally.

(5) After debugging, the pilot valve and the needle type flow valve must be locked with locknut.

(6) Valve should be checked regularly, ensuring the debris in filter being cleaned.

(7) Dimension of Tubing: Size: 3/8” and 1/2”

(8) Pilot valve: 10 to 125Psi —LF26A
    20 to 175Psi —LF263AP
    30 to 300Psi—LFCP15

(9) The pressure gauge range: 0-350Psi.