Rugged Thermoplastic Pressure Regulators
Series PRE – 3/4” and 1” Sizes
Extended Set Pressure Range 10 to 125 PSI

Superior Features:
- For water, corrosive and ultra-pure liquid applications.
- Converts varying or excessive inlet pressures (up to 150 PSI) to predetermined downstream pressure.
- Large surface area of rolling diaphragm assures sensitive, smooth regulation.
- Isolated sensing chamber does not impede flowpath, providing maximum flow capacity at set pressures.
- Adjustable downstream settings from 10 to 125 PSI.
- Diaphragm isolates spring from media - no metal parts in liquid.
- One-piece body and balanced shaft eliminate leakage and pressure "creep".
- Million cycle design.
- All plastic adjusting screw - can be ordered factory pre-set at no additional charge.
- All units are 100% inspected and individually tested.

Materials of Construction:
The standard connections are female NPT threaded ports, 3/4” and 1” pipe sizes. Spigot, socket and flanged connections are also available. Standard body materials are Geon® PVC, Natural Polypropylene, and Kyna® PVDF. Standard seal materials are Viton® and EPDM. Springs and fasteners (not wetted) are stainless steel; adjusting screw and lock nut are all plastic.
Compact, Economical Pressure Regulator

OPERATION:
Series PRE pressure regulators prevent downstream pressure from exceeding the desired set pressure. Regulator will remain closed as long as set pressure is maintained. As equipment or valves downstream of the regulator begin to open and demand flow, the downstream pressure begins to fall and the regulator begins to open. As valves or equipment downstream open further the pressure regulator continues to open, until its maximum opening is reached. As the process is reversed, downstream pressure begins to increase and the regulator starts closing. When the downstream pressure again reaches set pressure the regulator closes bubble-tight.

IMPORTANT: It should be noted from the preceding explanation that a pressure regulator does not maintain a specific downstream pressure, but only prevents the downstream pressure from exceeding a set point.

DIMENSIONS:

[Diagram]

<table>
<thead>
<tr>
<th>PIPE SIZE</th>
<th>SERIES PRE DIMENSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPT</td>
<td>A</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>8.5</td>
</tr>
<tr>
<td>1&quot;</td>
<td>9.3</td>
</tr>
</tbody>
</table>

NOTE: Refer to Catalog PR & PRM for information on other pressure regulator sizes, specifications, etc.

DESIGN:
Plast-0-Matic Series PRE pressure regulators are designed to handle corrosive and ultra-pure liquids with inlet pressures up to 150 PSI at 75°F. Standard downstream set pressure range is 10 to 125 PSI. The normally-open regulators incorporate a poppet seat at the valve orifice to prevent sticking and affecting the sensing of the downstream line pressure. Also, one piece body construction helps to eliminate internal leakage that could cause the set pressure to creep beyond a safe limit. A unique large-surface rolling diaphragm seal isolates the spring chamber from downstream pressure sensing liquid. This unique design in conjunction with a pressure balanced, reinforced shaft assures smooth performance and stable control. CAUTION: Avoid quick closing valves downstream of a regulator to eliminate "water hammer" shock that can cause breakage.

PERFORMANCE CURVE OF FLOW vs. DROP-OFF FROM SET PRESSURE

Performance curves below identify the high flow capacities and the low pressure losses of Series PRE regulators which result in their greater sensitivity, finer adjustability and superior accuracy.

<p>| MODEL NUMBERS: |</p>
<table>
<thead>
<tr>
<th>PIPE SIZE</th>
<th>PVC Model No.</th>
<th>POLYPRO* Model No.</th>
<th>PVDF* Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot;</td>
<td>PRE100EP-PV</td>
<td>PRE100EP-PP</td>
<td>PRE100EP-PF</td>
</tr>
</tbody>
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*Virgin, non-pigmented

Model numbers listed are for EPDM seals. For Viton® seals change "EP" to "V". Example Viton seals with PVC bodies, change PRE075EP-PV to PRE075V-PV.