

P289RC Exhaust Booster

The P289RC is designed as a high capacity exhaust booster and used in applications utilizing large pneumatic actuators and valve controls where a rapid response is required. Ideally suited in applications with surge valves or recycle valves on compressor stations where the operation is sped up to accommodate compressor surges and sudden pressure changes from the out devices.

The 1/4" spring case port is connected to the controlling instrument such as an I/P, Controller or Positioner, and the 1" supply/relief port is connected to the actuator. It is required for proper operation that a bypass valve connect the inlet and outlet of the P289RC wherever is convenient.

The greater the differential pressure develops across the bypass valve the further the exhaust booster opens. The factory set opening of the P289RC is approximately 1.5 PSIG and is not adjustable in the field. As the differential pressure decreases between the controlling instrument and the actuator, the booster exhaust valve closes.



Materials of Construction

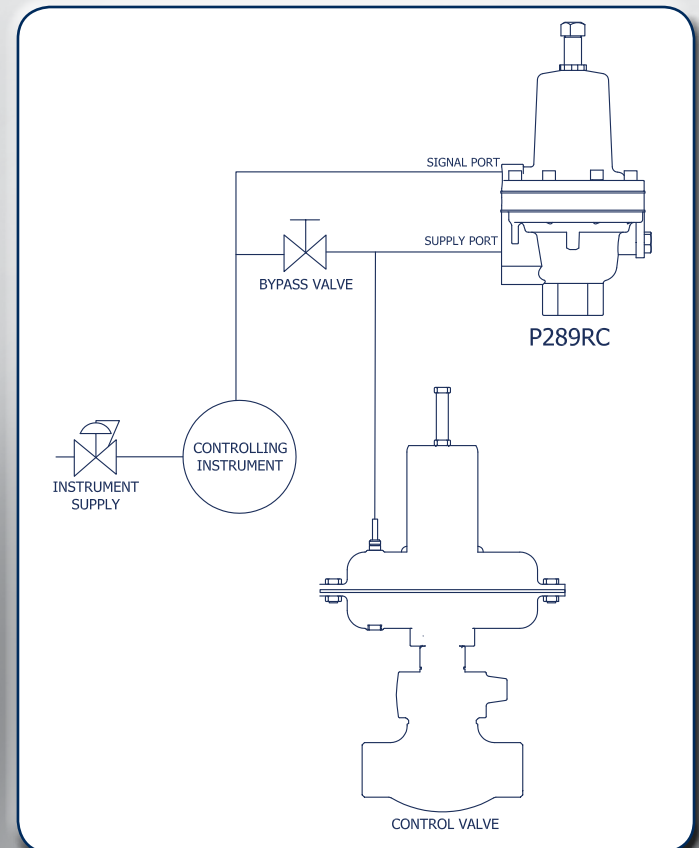
| | P289RC 1" & 3/4" x 1" |
|--------------------------|----------------------------|
| Body, Bonnet | Aluminum |
| Diaphragm | Nitrile or Fluoroelastomer |
| Gaskets | Composite |
| O-rings | Nitrile or Fluoroelastomer |
| O-ring Piston and Spacer | Aluminum |
| Stem | Aluminum |
| Spring | Zinc-plated steel |
| Diaphragm Piston | Zinc-plated steel |

Specifications

| | P289RC 1" & 3/4" x 1" | |
|-------------------------------|--------------------------------------|--------------|
| Port Size | 1 NPT | |
| Maximum Relief Inlet Pressure | 125 PSIG | 8.6 BAR |
| Temperature Range | -20-150 °F with Nitrile and Neoprene | |
| | 0-300 °F with Fluoroelastomer | |
| Approximate Weight | 3 lbs. | 1.36 kg |
| Exhaust Max Rate | C _v =22 | 107,988 scfh |

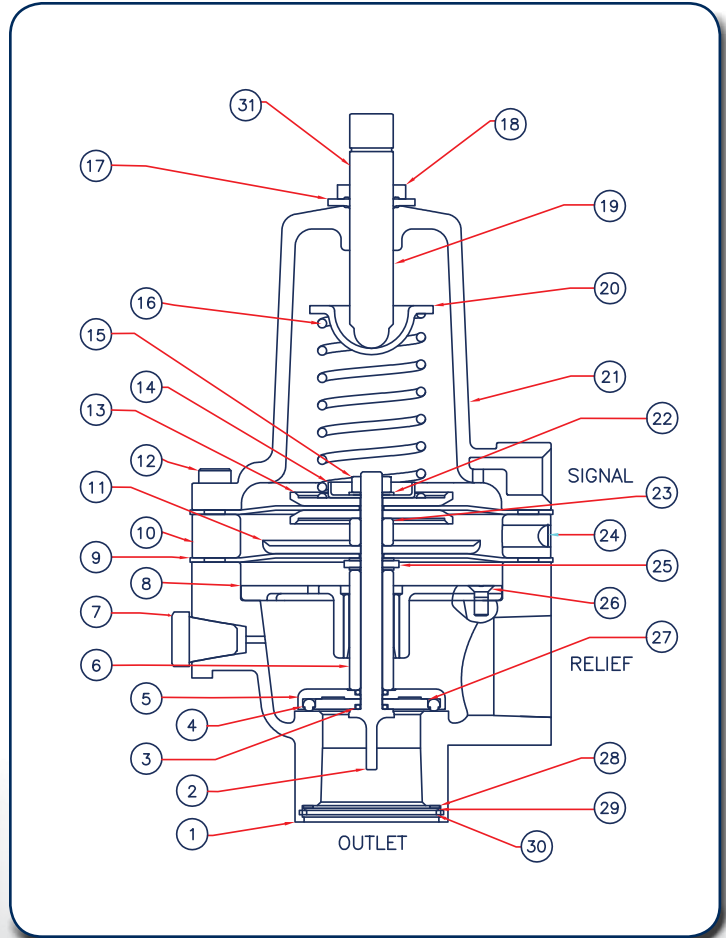
P289RC 1" Part Matrix

| P289RC | | | 000000 | |
|--------|----|---|--------|--------------------|
| | ↑ | ↑ | ↑ | Body Size |
| | 07 | | | 3/4" x 1" NPT |
| | 08 | | | 1" NPT |
| | | | | Diaphragm Material |
| | 0 | | | Nitrile |
| | 1 | | | Fluoroelastomer |



P289RC 1" Parts

| Item | Description | Qty. | Part Number |
|------|--|------|-----------------------------|
| 1 | Body, Aluminum 1" NPT | 1 | 664-295-000 |
| | | | 3/4" x 1" NPT |
| 2 | Stem, Aluminum | 1 | 689-022-000 |
| 3 | O-ring | 2 | Nitrile 649-000-003 |
| | | | Fluorocarbon 649-000-343 |
| 4 | O-ring | 1 | Nitrile 649-293-000 |
| | | | Fluorocarbon 649-293-001 |
| 5 | O-Ring Piston, Aluminum | 1 | 637-311-000 |
| 6 | Spacer Tube, Stainless Steel | 2 | 654-194-000 |
| 7 | Pipe Plug, Plated Steel | 1 | 639-099-000 |
| 8 | Stem Guide Assembly | 1 | 814-019-000 |
| 9 | Diaphragm | 2 | Nitrile 600-497-000 |
| | | | Fluorocarbon 600-497-001 |
| 10 | Spacer Ring, Aluminum | 1 | 654-195-000 |
| 11 | Large Piston, Plated Steel | 1 | 637-306-000 |
| 12 | Machine Screw | 7 | 648-466-010 |
| 13 | Small Piston, Plated Steel | 2 | 637-319-000 |
| 14 | Lower Spring Retainer, Zinc Plated Steel | 1 | 643-191-000 |
| 15 | Hex Nut, Plated Steel | 1 | 634-162-000 |
| 16 | Spring, Stainless Steel | 1 | 655-790-000 |
| 17 | Screw Seal, Nitrile | 1 | 662-245-000 |
| 18 | Hex Nut, Plated Steel | 1 | 634-154-000 |
| 19 | Adjusting Screw, Plated Steel | 1 | 648-585-000 |
| 20 | Spring Guide, Plated Steel | 1 | 626-079-000 |
| 21 | Bonnet, Aluminum | 1 | 604-237-000 |
| 22 | Gasket, Composite | 3 | 624-062-000 |
| 23 | Spacer, Stainless Steel | 1 | 654-196-000 |
| 24 | Screen, Stainless Steel | 1 | 647-029-000 |
| 25 | Washer, Steel | 1 | 662-204-000 |
| 26 | Machine Screw, Stainless Steel | 2 | 648-488-000 |
| 27 | O-Ring Spacer, Aluminum | 1 | 654-177-000 |
| 28 | Gasket, Neoprene | 1 | 624-063-000 |
| 29 | Screen, Stainless Steel | 1 | 647-018-000 |
| 30 | Retaining Ring, Plated Steel | 1 | 664-051-000 |
| 31 | Adjustment Scw | 1 | 648-584-000 |



P289RC 1" Dimensions

