

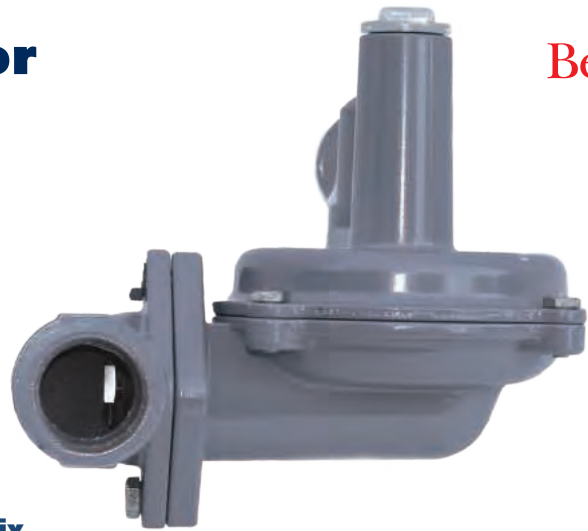
# P140 Pressure Regulator

- Versatile
- Control Accuracy
- Compact Design

The Type P140 pressure regulator is ideal for natural gas, air, propane and general purpose gas pressure regulation. Uses include commercial, residential and light industrial for burners and unit heaters. Available with or without internal relief.

## Applications

Applicable to a wide range of gaseous fluids, including air, natural gas and propane. Can be used as a LP regulator.



## Materials of Construction

| P140               |                   |
|--------------------|-------------------|
| Body, Bonnet       | Iron, Aluminum    |
| Diaphragm          | Nitrile           |
| Diaphragm Assembly | Nitrile           |
| Gaskets            | Nitrile           |
| Vent screen        | Stainless Steel   |
| Spring             | Zinc-Plated Steel |
| Diaphragm Piston   | Zinc-Plated Steel |

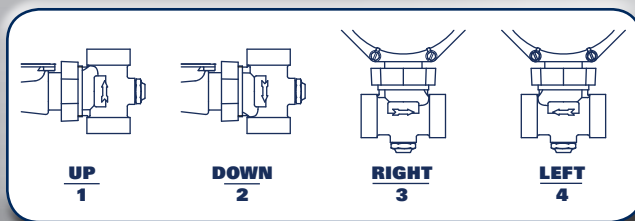
## Max Inlet Pressure (PSIG)

| Orifice | Standard |
|---------|----------|
| 1/8     | 125      |
| 3/16    | 125      |
| 1/4     | 60       |
| 5/16    | 35       |
| 3/8     | 20       |
| 1/2     | 10       |

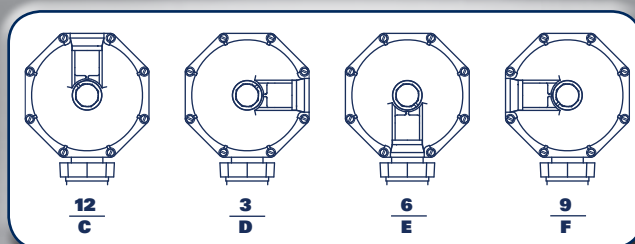
## Specifications

| P140                             |  |
|----------------------------------|--|
| Inlet / Outlet                   | 3/4" x 3/4", 3/4" x 1", 1" x 1", 1-1/4" x 1-1/4" |
| Maximum allowable inlet pressure | See Chart  |
| Temperature Range                | -20 °F to 150 °F                                 |
| Approximate Weight               | 4 lb.                      1.8 kg.               |

## P140 Body Positions



## P140 Vent Positions



## P140 Part Matrix

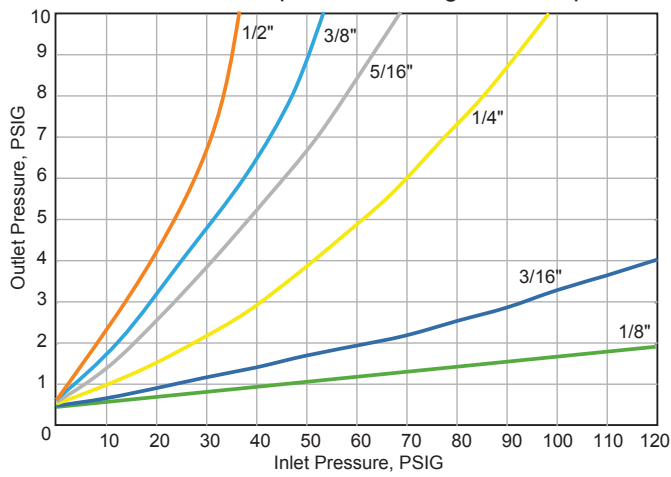
| P140     | ↑ | ↑↑         | ↑↑↑ | ↑↑↑↑ | ↑ | ↑ | ↑ | ↑ | Version                                |
|----------|---|------------|-----|------|---|---|---|---|--|
| <b>R</b> |   |            |     |      |   |   |   |   | Relieving                              |
| <b>0</b> |   |            |     |      |   |   |   |   | Non-Relieving                          |
|          |   |            |     |      |   |   |   |   | Port Size (Inlet X Outlet)             |
|          |   | <b>06</b>  |     |      |   |   |   |   | 3/4" NPT                               |
|          |   | <b>07</b>  |     |      |   |   |   |   | 3/4" x 1" NPT                          |
|          |   | <b>08</b>  |     |      |   |   |   |   | 1" NPT                                 |
|          |   | <b>12</b>  |     |      |   |   |   |   | 1-1/4" NPT                             |
|          |   |            |     |      |   |   |   |   | Body Construction                      |
|          |   | <b>0</b>   |     |      |   |   |   |   | Straight                               |
|          |   | <b>1</b>   |     |      |   |   |   |   | 90 Degree Angle                        |
|          |   |            |     |      |   |   |   |   | Spring Range                           |
|          |   |            |     |      |   |   |   |   | WC                      mBAR           |
|          |   | <b>007</b> |     |      |   |   |   |   | 5" - 7"                      12 - 17   |
|          |   | <b>008</b> |     |      |   |   |   |   | 6" - 8"                      15 - 20   |
|          |   | <b>014</b> |     |      |   |   |   |   | 8" - 14"                      20 - 35  |
|          |   | <b>028</b> |     |      |   |   |   |   | 12" - 28"                      30 - 70 |
|          |   |            |     |      |   |   |   |   | PSIG                      mBAR         |
|          |   | <b>002</b> |     |      |   |   |   |   | 1 - 2                      69 - 137    |
|          |   | <b>004</b> |     |      |   |   |   |   | 2 - 4                      137 - 276   |
|          |   | <b>005</b> |     |      |   |   |   |   | 4 - 5                      276 - 345   |
|          |   |            |     |      |   |   |   |   | Relief Spring                          |
|          |   | <b>0</b>   |     |      |   |   |   |   | Non Relieving                          |
|          |   | <b>5</b>   |     |      |   |   |   |   | 5" WC Above Set                        |
|          |   | <b>6</b>   |     |      |   |   |   |   | 6" WC Above Set                        |
|          |   | <b>7</b>   |     |      |   |   |   |   | 7" WC Above Set                        |
|          |   | <b>9</b>   |     |      |   |   |   |   | 9" WC Above Set (Standard)             |
|          |   |            |     |      |   |   |   |   | Orifice                                |
|          |   | <b>2</b>   |     |      |   |   |   |   | 1/8"                                   |
|          |   | <b>3</b>   |     |      |   |   |   |   | 3/16"                                  |
|          |   | <b>4</b>   |     |      |   |   |   |   | 1/4"                                   |
|          |   | <b>5</b>   |     |      |   |   |   |   | 5/16"                                  |
|          |   | <b>6</b>   |     |      |   |   |   |   | 3/8"                                   |
|          |   | <b>8</b>   |     |      |   |   |   |   | 1/2"                                   |
|          |   |            |     |      |   |   |   |   | Port Orientation                       |
|          |   | <b>1</b>   |     |      |   |   |   |   | Up                                     |
|          |   | <b>2</b>   |     |      |   |   |   |   | Down                                   |
|          |   | <b>3</b>   |     |      |   |   |   |   | Right (Standard)                       |
|          |   | <b>4</b>   |     |      |   |   |   |   | Left                                   |
|          |   |            |     |      |   |   |   |   | Bonnet Orientation                     |
|          |   | <b>C</b>   |     |      |   |   |   |   | 12 O'Clock                             |
|          |   | <b>D</b>   |     |      |   |   |   |   | 3 O'Clock                              |
|          |   | <b>E</b>   |     |      |   |   |   |   | 6 O'Clock                              |
|          |   | <b>F</b>   |     |      |   |   |   |   | 9 O'Clock (Standard)                   |

**P140 Flow Capacities in SCFH** of 0.6 Specific Natural Gas

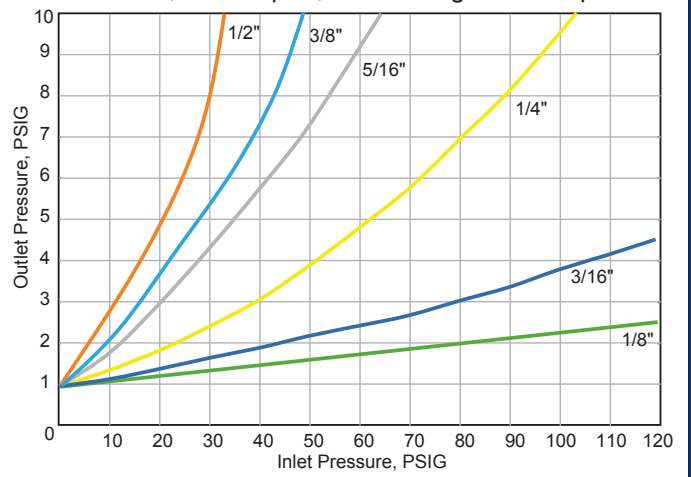
| Outlet Pressure,<br>Spring Part No.,<br>Accuracy                  | NPT 3/4" Outlet Body Size |      |         |       |      |       |      |      | NPT 1" Outlet Body Size |       |      |       |      |      | NPT 1-1/4" Outlet Body Size |       |      |       |      |      |
|---|---------------------------|------|---------|-------|------|-------|------|------|-------------------------|-------|------|-------|------|------|-----------------------------|-------|------|-------|------|------|
|   | Inlet                     |      | Orifice |       |      |       |      |      | Orifice                 |       |      |       |      |      | Orifice                     |       |      |       |      |      |
|   | PSIG                      | BAR  | 1/8"    | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" | 1/8"                    | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" | 1/8"                        | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" |
| 7" WC<br>Set Pressure<br>655-791-001<br>Brown<br>1" WC Droop      | 0.5                       | 0.04 | 56      | 72    | 82   | 160   | 200  | 260  | 66                      | 92    | 140  | 180   | 215  | 275  | 66                          | 92    | 140  | 180   | 305  | 305  |
|   | 1                         | 0.07 | 61      | 87    | 180  | 250   | 280  | 365  | 82                      | 145   | 210  | 280   | 305  | 410  | 82                          | 145   | 310  | 325   | 330  | 450  |
|   | 3                         | 0.20 | 102     | 289   | 320  | 450   | 530  | 500  | 172                     | 315   | 355  | 510   | 580  | 810  | 172                         | 340   | 435  | 520   | 590  | 810  |
|   | 5                         | 0.30 | 208     | 375   | 450  | 602   | 715  | 806  | 218                     | 405   | 510  | 730   | 830  | 1110 | 310                         | 480   | 510  | 730   | 880  | 1110 |
|   | 10                        | 0.70 | 320     | 590   | 800  | 940   | 1090 | 1320 | 345                     | 630   | 860  | 1110  | 1310 | 1555 | 350                         | 710   | 860  | 1150  | 1520 | 1575 |
|   | 15                        | 1.00 | 380     | 750   | 1000 | 1320  | 1425 |      | 428                     | 855   | 1210 | 1555  | 1650 |      | 525                         | 980   | 1210 | 1565  | 1760 |      |
|   | 20                        | 1.40 | 500     | 1046  | 1320 | 1510  | 1510 |      | 550                     | 1110  | 1450 | 1855  | 2010 |      | 610                         | 1250  | 1555 | 2070  | 2415 |      |
|   | 40                        | 2.80 | 795     | 1600  | 1905 |       |      |      | 845                     | 1750  | 2210 |       |      |      | 940                         | 1755  | 2505 |       |      |      |
|   | 60                        | 4.10 | 1000    | 2005  | 2110 |       |      |      | 1155                    | 2310  | 2505 |       |      |      | 1270                        | 2505  | 2505 |       |      |      |
| 100   | 6.90                      | 1700 | 2110    |       |      |       |      | 1805 | 2505                    |       |      |       |      | 1910 | 2505                        |       |      |       |      |      |
|   |                           |      |         |       |      |       |      |      |                         |       |      |       |      |      |                             |       |      |       |      |      |
|   | PSIG                      | BAR  | 1/8"    | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" | 1/8"                    | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" | 1/8"                        | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" |
| 14" WC Set<br>Pressure<br>655-791-003<br>Silver<br>2" WC Droop    | 2                         | 0.14 | 75      | 200   | 270  | 390   | 400  | 555  | 70                      | 220   | 305  | 435   | 460  | 830  | 140                         | 210   | 330  | 395   | 460  | 830  |
|   | 5                         | 0.34 | 155     | 360   | 500  | 630   | 660  | 885  | 235                     | 395   | 560  | 720   | 750  | 1230 | 235                         | 395   | 560  | 720   | 750  | 1350 |
|   | 10                        | 0.69 | 350     | 550   | 750  | 965   | 1000 | 1230 | 375                     | 610   | 825  | 1055  | 1140 | 1660 | 375                         | 610   | 825  | 1120  | 1195 | 1720 |
|   | 15                        | 1.00 | 420     | 720   | 900  | 1255  | 1350 |      | 460                     | 810   | 1080 | 1350  | 1475 |      | 375                         | 810   | 1135 | 1375  | 1650 |      |
|   | 20                        | 1.40 | 565     | 900   | 1250 | 1430  | 1575 |      | 610                     | 1020  | 1330 | 1640  | 1810 |      | 630                         | 1020  | 1395 | 1680  | 2025 |      |
|   | 30                        | 2.10 | 745     | 1240  | 1550 | 1755  |      |      | 805                     | 1350  | 1760 | 1955  |      |      | 815                         | 1490  | 2075 | 2320  |      |      |
|   | 60                        | 4.10 | 1230    | 1955  | 2210 |       |      |      | 1310                    | 2255  | 2505 |       |      |      | 1330                        | 2750  | 3420 |       |      |      |
|   | 80                        | 5.50 | 1555    | 2300  |      |       |      |      | 1905                    | 2580  |      |       |      |      | 1960                        | 3435  |      |       |      |      |
|   | 100                       | 6.90 | 1645    | 2500  |      |       |      |      | 2200                    | 2710  |      |       |      |      | 1960                        | 4020  |      |       |      |      |
| 125   | 8.60                      | 2000 | 2700    |       |      |       |      | 2200 | 2905                    |       |      |       |      | 2260 | 4320                        |       |      |       |      |      |
|   |                           |      |         |       |      |       |      |      |                         |       |      |       |      |      |                             |       |      |       |      |      |
|   | PSIG                      | BAR  | 1/8"    | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" | 1/8"                    | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" | 1/8"                        | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" |
| 1 PSIG<br>Set Pressure<br>655-791-003<br>Silver<br>1% Droop       | 2                         | 0.14 | 95      | 220   | 270  | 290   | 380  | 410  | 85                      | 235   | 305  | 340   | 430  | 460  | 140                         | 295   | 330  | 340   | 430  | 520  |
|   | 5                         | 0.34 | 200     | 345   | 440  | 590   | 630  | 720  | 235                     | 395   | 500  | 660   | 715  | 800  | 280                         | 400   | 520  | 665   | 715  | 800  |
|   | 10                        | 0.69 | 330     | 525   | 700  | 870   | 1000 | 1000 | 370                     | 580   | 780  | 1025  | 1135 | 1150 | 370                         | 590   | 780  | 1035  | 1150 | 1280 |
|   | 15                        | 1.00 | 420     | 735   | 950  | 1200  | 1300 |      | 465                     | 770   | 1055 | 1280  | 1420 |      | 465                         | 790   | 1075 | 1280  | 1435 |      |
|   | 20                        | 1.40 | 520     | 900   | 1200 | 1400  | 1620 |      | 580                     | 990   | 1355 | 1560  | 1730 |      | 580                         | 1020  | 1370 | 1590  | 1730 |      |
|   | 30                        | 2.10 | 700     | 1150  | 1640 | 1750  |      |      | 800                     | 1340  | 1860 | 2020  |      |      | 800                         | 1365  | 1890 | 2040  |      |      |
|   | 60                        | 4.10 | 1200    | 1920  | 2250 |       |      |      | 1280                    | 2410  | 2860 |       |      |      | 1280                        | 2580  | 2900 |       |      |      |
|   | 80                        | 5.50 | 1550    | 2110  |      |       |      |      | 1705                    | 2900  |      |       |      |      | 1720                        | 3400  |      |       |      |      |
|   | 100                       | 6.90 | 1660    | 2150  |      |       |      |      | 1905                    | 3155  |      |       |      |      | 1935                        | 3420  |      |       |      |      |
| 125   | 8.60                      | 1770 | 2160    |       |      |       |      | 2105 | 3310                    |       |      |       |      | 2210 | 3620                        |       |      |       |      |      |
|   |                           |      |         |       |      |       |      |      |                         |       |      |       |      |      |                             |       |      |       |      |      |
|   | PSIG                      | BAR  | 1/8"    | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" | 1/8"                    | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" | 1/8"                        | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" |
| 2 PSIG<br>Set Pressure<br>655-791-004<br>Yellow/Black<br>1% Droop | 5                         | 0.34 | 125     | 205   | 260  | 360   | 380  | 300  | 130                     | 225   | 290  | 410   | 420  | 485  | 130                         | 180   | 250  | 280   | 300  | 395  |
|   | 10                        | 0.69 | 210     | 340   | 440  | 690   | 690  | 850  | 235                     | 375   | 490  | 735   | 760  | 850  | 260                         | 420   | 585  | 755   | 775  | 870  |
|   | 15                        | 1.00 | 270     | 450   | 600  | 900   | 900  |      | 310                     | 505   | 655  | 1010  | 1010 |      | 370                         | 530   | 67   | 1060  | 1120 |      |
|   | 20                        | 1.38 | 340     | 550   | 760  | 1080  | 1080 |      | 375                     | 610   | 850  | 1210  | 1210 |      | 430                         | 625   | 860  | 1290  | 1320 |      |
|   | 30                        | 2.10 | 450     | 850   | 1100 | 1450  |      |      | 510                     | 905   | 1240 | 1620  |      |      | 535                         | 930   | 1250 | 1720  |      |      |
|   | 60                        | 4.10 | 880     | 1500  | 2040 |       |      |      | 960                     | 1620  | 2250 |       |      |      | 960                         | 1660  | 2300 |       |      |      |
|   | 80                        | 5.52 | 1100    | 1910  |      |       |      |      | 1210                    | 2010  |      |       |      |      | 1290                        | 2110  |      |       |      |      |
|   | 100                       | 6.90 | 1430    | 1910  |      |       |      |      | 1600                    | 2410  |      |       |      |      | 1720                        | 2490  |      |       |      |      |
|   | 125                       | 8.60 | 1760    | 2115  |      |       |      |      | 2110                    | 3320  |      |       |      |      | 2150                        | 3420  |      |       |      |      |
|   |                           |      |         |       |      |       |      |      |                         |       |      |       |      |      |                             |       |      |       |      |      |
|   | PSIG                      | BAR  | 1/8"    | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" | 1/8"                    | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" | 1/8"                        | 3/16" | 1/4" | 5/16" | 3/8" | 1/2" |
| 5 PSIG<br>Set Pressure<br>655-791-006<br>White<br>1% Droop        | 10                        | 0.69 | 125     | 155   | 200  | 275   | 290  | 580  | 120                     | 155   | 225  | 245   | 305  | 335  | 180                         | 250   | 310  | 375   | 450  | 660  |
|   | 15                        | 1.00 | 125     | 155   | 200  | 275   | 290  |      | 135                     | 170   | 230  | 290   | 335  |      | 160                         | 205   | 270  | 310   | 380  |      |
|   | 20                        | 1.38 | 140     | 175   | 240  | 275   | 350  |      | 165                     | 200   | 270  | 315   | 390  |      | 165                         | 235   | 330  | 370   | 450  |      |
|   | 30                        | 2.10 | 170     | 225   | 290  | 360   |      |      | 200                     | 270   | 330  | 415   |      |      | 225                         | 330   | 420  | 435   |      |      |
|   | 60                        | 4.10 | 180     | 350   | 500  |       |      |      | 300                     | 400   | 555  |       |      |      | 355                         | 455   | 600  |       |      |      |
|   | 80                        | 5.52 | 300     | 420   |      |       |      |      | 370                     | 490   |      |       |      |      | 490                         | 640   |      |       |      |      |
|   | 100                       | 6.90 | 380     | 520   |      |       |      |      | 430                     | 590   |      |       |      |      | 500                         | 700   |      |       |      |      |
| 125   | 8.60                      | 450  | 620     |       |      |       |      | 515  | 710                     |       |      |       |      | 650  | 870                         |       |      |       |      |      |

**P140 Performance Curves**

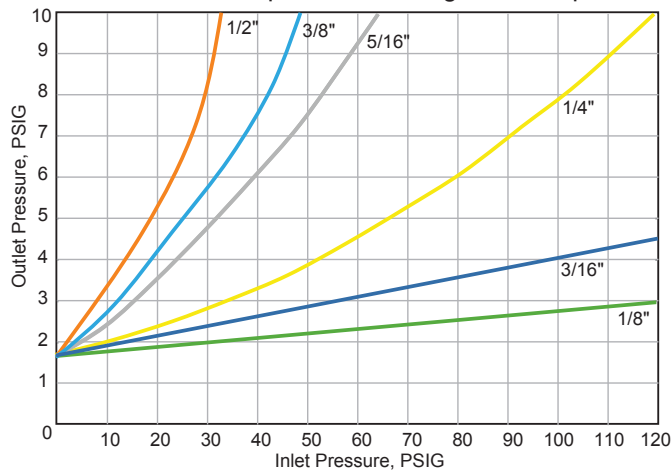
1" outlet, 1" vent port, 7" WC regulator set point



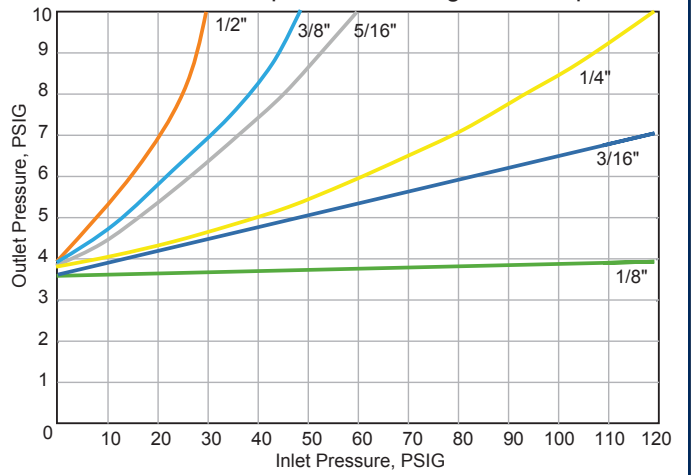
1" outlet, 1" vent port, 14" WC regulator set point



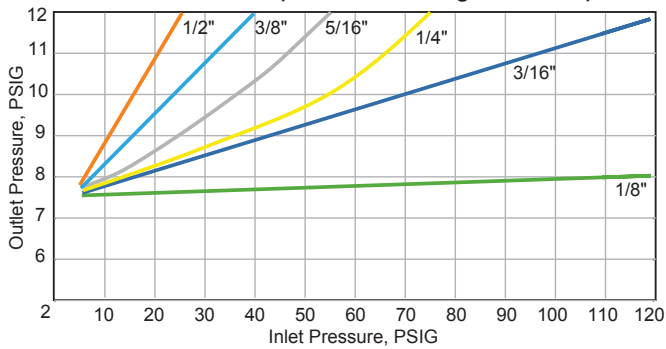
1" outlet, 1" vent port, 1 PSIG regulator set point



1" outlet, 1" vent port, 2 PSIG regulator set point



1" outlet, 1" vent port, 5 PSIG regulator set point



## P140 Standard Parts

## P140 Dimensions

| Item            | Description                        | Qty. | Part Number |
|-----------------|------------------------------------|------|-------------|
| 1               | Bonnet Cap w/ gasket               | 1    | 812-035-000 |
| 3               | Adjustment Screw - 5" to 2 PSIG    | 1    | 648-581-000 |
|                 | Adjustment Screw - 2 to 5 PSIG     |      | 648-581-001 |
| 3               | <b>Range Springs</b>               | 1    |             |
|                 | 5"-7" WC, Green                    |      | 655-791-000 |
|                 | 6"-8" WC, Brown                    |      | 655-791-001 |
|                 | 8"-14" WC, Blue                    |      | 655-791-002 |
|                 | 12"-28" WC, Silver                 |      | 655-791-003 |
|                 | 1-2 PSIG, Yellow/Black             |      | 655-791-004 |
|                 | 2-4 PSIG, Yellow                   |      | 655-791-005 |
| 4-5 PSIG, White | 655-791-006                        |      |             |
| 4               | <b>Aluminum Orifices</b>           | 1    |             |
|                 | Orifice - 1/8"                     |      | 688-076-500 |
|                 | Orifice - 3/16"                    |      | 688-076-501 |
|                 | Orifice - 1/4"                     |      | 688-076-502 |
|                 | Orifice - 5/16"                    |      | 688-076-503 |
|                 | Orifice - 3/8"                     |      | 688-076-504 |
| 5               | <b>Cast Iron Bodies</b>            | 1    |             |
|                 | Iron Body - 3/4" NPT straight      |      | 664-449-000 |
|                 | Iron Body - 3/4" NPT angle         |      | 664-450-000 |
|                 | Iron Body - 3/4" x 1" NPT straight |      | 664-451-000 |
|                 | Iron Body - 3/4" x 1" NPT angle    |      | 664-452-000 |
|                 | Iron Body - 1" NPT straight        |      | 664-453-000 |
|                 | Iron Body - 1" NPT angle           |      | 664-454-000 |
|                 | Iron Body - 1 1/4" NPT straight    |      | 664-455-000 |
|                 | Iron Body - 1 1/4" NPT angle       |      | 664-456-000 |
| 6               | <b>Relief Springs</b>              | 1    |             |
|                 | 5" above set, Orange               |      | 655-792-000 |
|                 | 6" above set, Red                  |      | 655-792-001 |
|                 | 7" above set, Purple               |      | 655-792-002 |
| 7               | 9" above set, Black                | 1    | 655-792-003 |
|                 | Seat assembly - Nitrile            |      | 650-204-000 |
|                 | Steel Build Bolt (Not Shown)       |      | 648-587-000 |
|                 | Steel Body Bolt (Not Shown)        |      | 648-587-001 |
| 10              | Body Gasket                        | 1    | 624-112-000 |
| 11              | Non-relieving Diaphragm Assembly   | 1    | 804-296-000 |
|                 | Relieving Diaphragm Assembly - 5"  | 1    | 804-297-000 |
|                 | Relieving Diaphragm Assembly - 6"  | 1    | 804-297-001 |
|                 | Relieving Diaphragm Assembly - 7"  | 1    | 804-297-002 |
|                 | Relieving Diaphragm Assembly - 9"  | 1    | 804-297-003 |

