# NGR02 Series

## PRESSURE REDUCING REGULATORS

for Residential, Commercial or Industrial Applications



The NGR02 Series spring loaded gas regulators with internal relief provide consistent and controlled pressure in a variety of residential, industrial and commercial applications. The NGR02 is fully certified to ANSI Z21.80/CSA 6.22 for Class I, Class II, Vent Limiting and OPD (Overpressure Protection Device) applications and are designed to be used in many applications where non-corrosive dry gases are used.

## FEATURES

- ANSI Z21.80/CSA 6.22 CERTIFIED
- Vent Limiting Option
- Internal Relief - OPD
- Outlet pressures up to 5 psig
- Conforms to ANSI B109.4
- Corrosion resistant exterior
- Inlet pressure tap standard

## SPECIFICATIONS

| | | |
|---|---|---|
| Pipe Sizes: | 1/2" to 1-1/4” NPT | |
| Gas Types: | Natural Gas, LPG, other non-corrosive dry gases | |
| Maximum Inlet Pressure: | 10 to 125 psig per Orifice | |
| Outlet Pressure Range: | 2”w.c. to 5 psig | |
| Maximum Emergency Inlet Pressure: | 175 psig | |
| Operating Temp: | -40F - +140F | |
| Materials: | Housing | Epoxy Coated Aluminum |
| | Valve Body | Cast Iron |
| | Diaphragm/Valve Seat | Buna N |
| | Orifice | High Strength Brass |

# NGR02 Series PRESSURE REDUCING REGULATORS

## 7" w.c. Set Point - 1" Pressure Drop

| Inlet Pressure | ORIFICE | | | | |
|---|---|---|---|---|---|
| | 1/8" | 3/16" | 1/4" | 3/8" | 1/2" |
| 0.5 | 117 | 101 | 169 | 203 | 242 |
| 1 | 136 | 148 | 210 | 260 | 571 |
| 2 | 221 | 210 | 296 | 377 | 1039 |
| 3 | 234 | 257 | 460 | 468 | 1429 |
| 5 | 292 | 351 | 649 | 1169 | 1558 |
| 10 | 338 | 545 | 1091 | 1748 | 1740 |
| 15 | 390 | 701 | 1481 | 2104 | |
| 20 | 491 | 818 | 1870 | 2403 | |
| 30 | 619 | 1286 | 2571 | | |
| 40 | 717 | 2260 | 3251 | | |
| 50 | 805 | 2494 | 3636 | | |
| 60 | 997 | 2571 | 4052 | | |
| 80 | 1403 | 3696 | | | |
| 100 | 1675 | 4595 | | | |
| 125 | 1850 | 4812 | | | |

Green S02A and 1" VB used to develop table

## 14" w.c. Set Point - 2" Pressure Drop

| Inlet Pressure | ORIFICE | | | | |
|---|---|---|---|---|---|
| | 1/8" | 3/16" | 1/4" | 3/8" | 1/2" |
| 0.5 | | | | | |
| 1 | 156 | 94 | 187 | 285 | 584 |
| 2 | 182 | 156 | 292 | 325 | 1143 |
| 3 | 265 | 195 | 374 | 792 | 1688 |
| 5 | 335 | 234 | 592 | 1562 | 2013 |
| 10 | 386 | 390 | 1083 | 1792 | 2338 |
| 15 | 530 | 545 | 1535 | 2208 | |
| 20 | 600 | 623 | 2049 | 2338 | |
| 30 | 753 | 1558 | 2766 | | |
| 40 | 922 | 2338 | 3384 | | |
| 50 | 1052 | 2435 | 3701 | | |
| 60 | 1183 | 2571 | 3896 | | |
| 80 | 1403 | 3790 | | | |
| 100 | 1753 | 4749 | | | |
| 125 | 1900 | 5214 | | | |

Silver S02B and 1" VB used to develop table

## 1 psig Set Point - 20% Pressure Drop

| Inlet Pressure | ORIFICE | | | | |
|---|---|---|---|---|---|
| | 1/8" | 3/16" | 1/4" | 3/8" | 1/2" |
| 0.5 | | | | | |
| 1 | | | | | |
| 2 | 195 | 195 | 273 | 468 | 623 |
| 3 | 218 | 234 | 312 | 623 | 1013 |
| 5 | 234 | 351 | 506 | 857 | 1714 |
| 10 | 358 | 545 | 779 | 1870 | 3117 |
| 15 | 468 | 740 | 1091 | 2727 | |
| 20 | 545 | 857 | 1636 | 3429 | |
| 30 | 701 | 1247 | 2727 | | |
| 40 | 584 | 2260 | 3740 | | |
| 50 | 701 | 2338 | 4519 | | |
| 60 | 779 | 2649 | 5143 | | |
| 80 | 1558 | 3671 | | | |
| 100 | 2104 | 4570 | | | |
| 125 | 2250 | 5210 | | | |

Silver S02B and 1" VB used to develop table

## 2 psig Set Point - 20% Pressure Drop

| Inlet Pressure | ORIFICE | | | | |
|---|---|---|---|---|---|
| | 1/8" | 3/16" | 1/4" | 3/8" | 1/2" |
| 0.5 | | | | | |
| 1 | | | | | |
| 2 | | | | | |
| 3 | 187 | 179 | 234 | 351 | 429 |
| 5 | 265 | 257 | 390 | 545 | 1091 |
| 10 | 358 | 390 | 623 | 1169 | 2104 |
| 15 | 468 | 545 | 935 | 1714 | |
| 20 | 545 | 701 | 1403 | 2416 | |
| 30 | 701 | 935 | 2026 | | |
| 40 | 1013 | 2026 | 3117 | | |
| 50 | 1052 | 2182 | 3662 | | |
| 60 | 1130 | 2260 | 4442 | | |
| 80 | 1661 | 3271 | | | |
| 100 | 2150 | 4110 | | | |
| 125 | 2381 | 5170 | | | |

Yellow S02D and 1" VB used to develop table

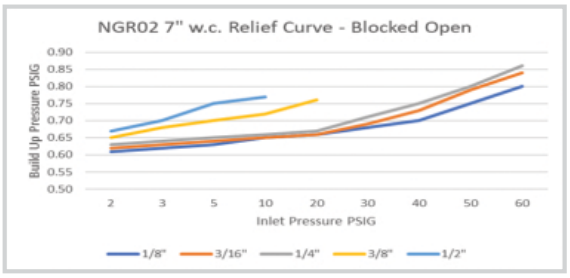
Flow capacities in SCFH of 0.60 specific gravity gas @ 60° F and 14.7 psia. Individual results may vary.

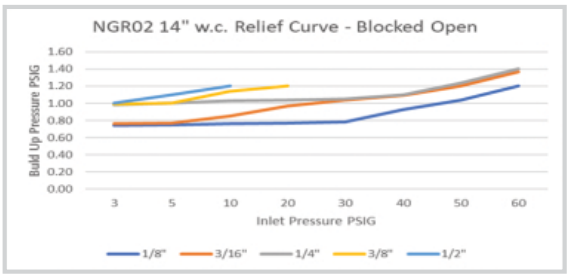
| 5 psig Set Point (HP) - 20% Pressure Drop | | | | | |
|---|---|---|---|---|---|
| Inlet Pressure | ORIFICE | | | | |
| | 1/8” | 3/16" | 1/4” | 3/8” | 1/2” |
| 0.5 | | | | | |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 5 | | | | | |
| 10 | 273 | 468 | 701 | 1714 | 2805 |
| 15 | 351 | 655 | 1169 | 2494 | |
| 20 | 390 | 779 | 1792 | 3039 | |
| 30 | 468 | 1481 | 2571 | | |
| 40 | 584 | 2338 | 3662 | | |
| 50 | 662 | 2455 | 4364 | | |
| 60 | 825 | 2494 | 5065 | | |
| 80 | 1350 | 3752 | | | |
| 100 | 1467 | 4673 | | | |
| 125 | 1596 | 5794 | | | |
| White (HP) S0204E and 1” VB used to develop table | | | | | |

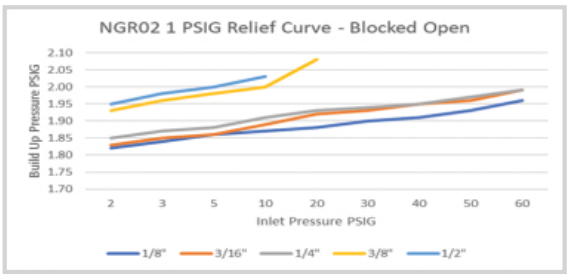
Flow capacities in SCFH of 0.60 specific gravity gas @ 60° F and 14.7 psia.
Individual results may vary.

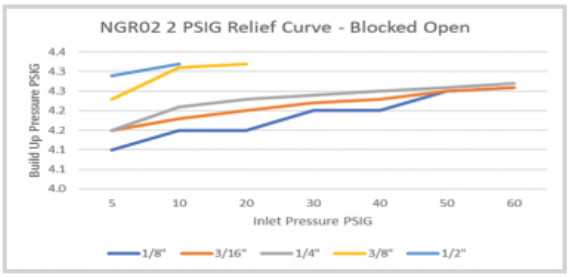
| Orifice Max Pressure | | |
|---|---|---|
| Size | Max Inlet Pressure | P/N |
| 1/8” | 125 psig | F02A |
| 3/16” | 125 psig | F02E |
| 1/4” | 60 psig | F02B |
| 3/8” | 20 psig | F02C |
| 1/2” | 10 psig | F02D |

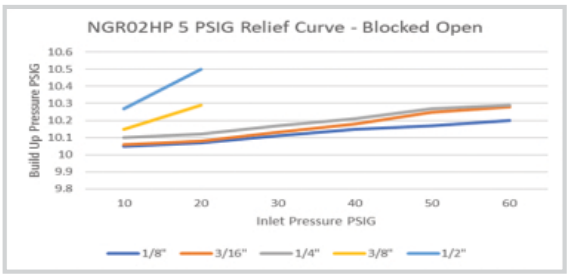
| Spring Chart | | |
|---|---|---|
| Color | Outlet Range | P/N |
| Orange | 2”wc - 7”wc | S02F |
| Green | 6.5”wc - 16”wc | S02A |
| Silver | 14”wc - 1psig | S02B |
| Yellow/Black | 26”wc - 1.5psig | S02C |
| Yellow | 1psig - 3psig | S02D |
| White (HP) | 2psig - 5psig | S0204E |



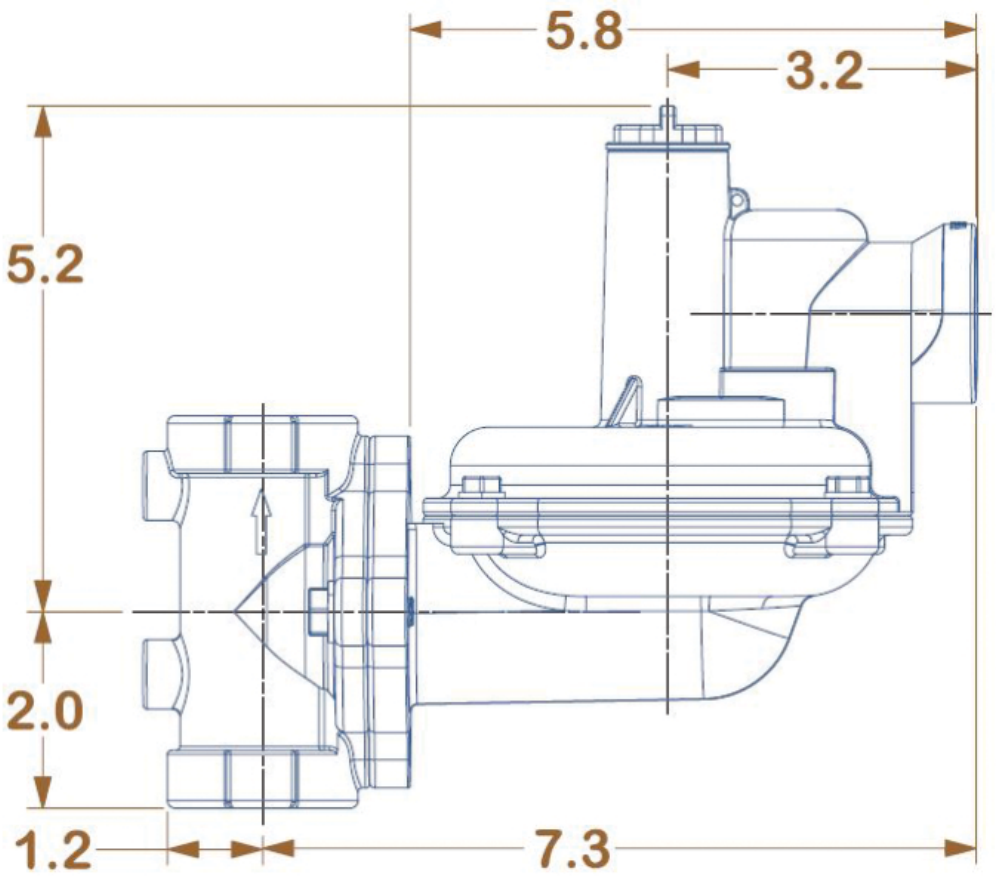




Blocked open relief curves developed using a 3/32” blockage across valve seat.
Lever disconnect curves available upon request. Individual results may vary.

| Gas Type | Specific Gravity | Correction Factor (CF) |
|---|---|---|
| Natural Gas | 0.60 | 1.00 |
| Propane | 1.53 | 0.63 |
| Air | 1.00 | 0.77 |
| Propane-Air-Mix | 1.20 | 0.71 |
| Nitrogen | 0.97 | 0.79 |
| Butane | 2.01 | 0.55 |
| Carbon Dioxide (Dry) | 1.52 | 0.63 |
| Carbon Monoxide (Dry) | 0.97 | 0.79 |

| Model | NGR02 |
|---|---|
| Pipe Size | 1/2”, 3/4”, 1”, 1-1/4” |
| Vent (NPT) | 1” |
| Wt. (lb) | 3.75 |




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Western
WATER AND GAS PRODUCTS LTD.

#101-13030 115 Ave Surrey B.C V3R 2T9
Tel: 604-599-1900
Email: info@wngp.com www.wngp.com