



AIR LOADED HIGH PRESSURE *Back Pressure Regulators*

3100AL SERIES

PREMIER INDUSTRIES

1590 99th Ln NE,
Minneapolis, MN 55449
763-786-4020



MADE IN THE USA

Minneapolis, MN

DESCRIPTION

The Premier 3100AL Series air loaded, piston sensed, single stage, high pressure, back pressure regulators feature control pressures up to 10000 PSIG (689.48 bar), and Cv 0.06, 0.14, or 0.2. Premier 3100AL Series regulators are used to regulate to a broad range of non-corrosive and corrosive media (*based on materials of construction*).

FEATURES

- Compatible with electro pneumatic controllers
- Cv 0.06, 0.14, or 0.2
- Control pressures up to 10000 PSIG (689.48 bar)
- Very competitive pricing
- Machined bar stock body, bonnet and piston eliminates porosity found in castings
- Numerous optional features are available
- Hydraulic versions available

*The Premier 3100AL Series back pressure regulator's design is remarkably flexible.
Contact Premier Industries for a custom Premier 3100AL Series regulator to meet your exact needs.*

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SPECIFICATIONS

- **MAXIMUM INLET PRESSURE:**
 - REGULATOR: 10000 PSIG (689.5 bar)
 - AIR ACTUATOR: 100 PSIG (6.89 bar)
- **CONTROL PRESSURE RANGES:**
 - 10-1500 PSIG (0.69 - 103.42 bar)
 Diameter: 1.000"
 Area: 0.7854 in²
 Ratio: 1⁶/₁ **
 - 15-2500 PSIG (1.03 - 172.37 bar)
 Diameter: 0.750"
 Area: 0.4418 in²
 Ratio: 2⁸/₁ **
 - 50-6000 PSIG (3.45 - 413.69 bar)
 Diameter: 0.500"
 Area: 0.1964 in²
 Ratio: 6⁴/₁ **
 - 100-10000 PSIG (6.89 - 689.5 bar)
 Diameter: 0.375"
 Area: 0.1104 in²
 Ratio: 11⁴/₁ **

** 4.0" diameter diaphragm
 Diaphragm area: 12.5664 in²

- **FLOW (Cv):** 0.06, 0.14, or 0.20

MATERIALS OF CONSTRUCTION

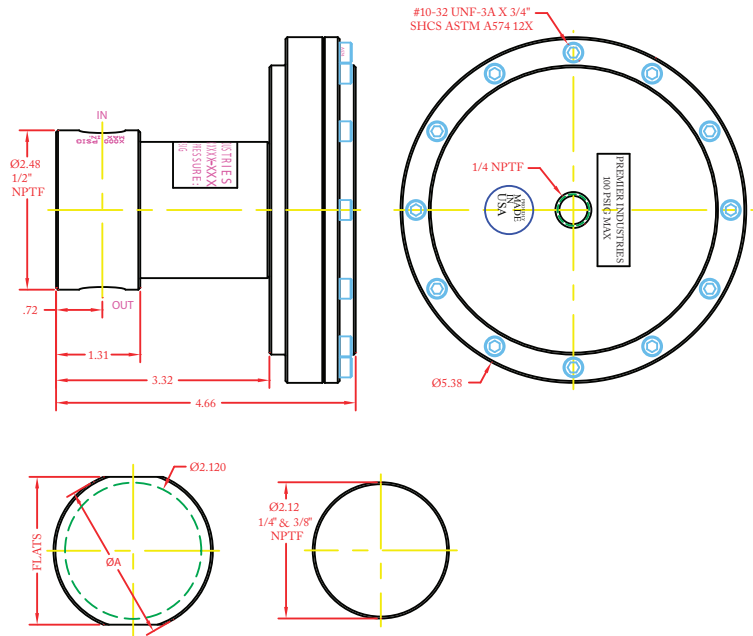
- **BODY:** SAE 360 brass or 316 Stainless Steel
- **HOUSING, AIR ACTUATOR:**
 - 6061-T6 Aluminum/clear anodized
- **DIAPHRAGM, AIR ACTUATOR:**
 - Neoprene, nylon fabric-reinforced
- **MAIN VALVE STEM:** 316 Stainless Steel
- **MAIN VALVE SEAT:**
 - Vespel®
 - PEEK®
- **ELASTOMER SEALS:**
 - BUNA-N
 - Viton-A®
 - EPDM
 - Kalrez®
- **WETTED PARTS:**
 - 316 Stainless Steel
 - 17-4 Stainless Steel

PORTING

- **INLET/OUTLET**
 - 1/4", 3/8", 1/2" FNPT
 - 1/4", 3/8", 1/2" SAE J1926
 - 1/4", 3/8", 1/2" SAE AS5202
- **AIR ACTUATOR:** 1/4-18" FNPT

OPTIONAL ITEMS

- Captured venting
- Non-venting design
- Private label



(Part number: 30-10205G shown above)

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**AIR LOADED
HIGH PRESSURE**
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30-10205G-XXXXXX-XXX

| BASIC SERIES | BODY MATERIAL | OUTLET PRESSURE | (Cv) RATING | PORT SIZE | PORT TYPE | VALVE / SEAT | O-RINGS |
|------------------|--|--|--|----------------|----------------------|--|---------------------------------|
| 30-10205G | 1: SAE 360 Brass <i>(6000 PSIG / 413.69 bar)</i> | 3: 10-1500 PSIG <i>(0.69 - 103.42 bar)</i> <i>Diameter: 1.000"</i> <i>Area: 0.7854 in²</i> <i>Ratio: 1⁶/₁ **</i> | 0: 0.06 | 4: 1/4" | 1: FNPT | 0: 316 Stainless Steel / <i>Vespe^l</i> [®] | 00: BUNA-N |
| | 2: 316 Stainless Steel <i>(10000 PSIG / 689.5 bar)</i> | 5: 25-4000 PSIG <i>(1.7-275.8 Bar)</i> <i>Diameter: 0.500"</i> <i>Area: 0.1964 in²</i> <i>Ratio: 6⁴/₁ **</i> | 1: 0.14 | 6: 3/8" | 2: SAE J1926 | 1: 316 Stainless Steel / <i>PEEK</i> [®] | 02: VITON-A [®] |
| | | 6: 50-6000 PSIG <i>(3.45 - 413.69 bar)</i> <i>Diameter: 0.500"</i> <i>Area: 0.1964 in²</i> <i>Ratio: 6⁴/₁ **</i> | 2: 0.20 | 8: 1/2" | 3: SAE AS5202 | | 05: EPDM |
| | | 7: 100-10000 PSIG <i>(6.89 - 689.5 bar)</i> <i>Diameter: 0.375"</i> <i>Area: 0.1104 in²</i> <i>Ratio: 11⁴/₁ **</i> | ** 4.0" diameter diaphragm <i>Diaphragm area: 12.5664 in²</i> | | | | 11: KALREZ [®] |

*Kalrez[®] & Viton-A[®] are registered trademarks of E.I. duPont de Nemours and Company
PEEK[®] is a registered trademark of Victrex PLC*

10000 PSIG MAX INLET
THE END USER IS RESPONSIBLE TO ENSURE ADEQUATE
FITTINGS ARE USED TO CONNECT REGULATOR TO PLUMBING



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