

# 3023AL SERIES

**Air Loaded, High Pressure**  
Pressure Reducing Regulators



The high pressure, air loaded, Premier 3023AL Series pressure reducing regulators are single stage, piston sensed, pressure reducing regulators, designed for inlet and outlet pressures up to 15000 PSIG (*1034.21 bar*) and Cv 0.06, 0.12, or 0.20.

Premier 3023AL Series Regulators are designed for compatibility with electropneumatic controllers, enabling piloted pressure control from an inert gas at low pressures (*100 psig / 6.89 bar max air load*).

Premier 3023AL Series regulators are used to regulate a broad range of non-corrosive and corrosive media (based on materials of construction). Captured venting is standard.

## FEATURES

- Compatible with electro-pneumatic controllers
- 15000 PSIG (*1034.21 bar*) MAX
- Captured venting
- Cv 0.06, 0.12, or 0.20
- Numerous optional features
- Economical pricing
- Machined bar stock body, bonnet and piston eliminates porosity found in castings

**SOME APPLICATIONS WILL REQUIRE A CUSTOM SOLUTION.**  
CONTACT PREMIER INDUSTRIES TO REQUEST A MODIFICATION  
OR A CUSTOM DESIGN.

## SPECIFICATIONS

- **MAX INLET PRESSURE:**
  - REGULATOR: 15000 PSIG / 1034.21 bar  
*(stainless steel)*
  - AIR ACTUATOR: 100 PSIG (6.89 bar)
- **CONTROL PRESSURE RANGES:**
  - 10-1500 PSIG (0.69 - 103.42 bar)  
Diameter: 1.000"  
Area: 0.7854 in<sup>2</sup>  
Ratio: 16/1 \*\*
  - 15-2500 PSIG (1.03 - 172.37 bar)  
Diameter: 0.750"  
Area: 0.4418 in<sup>2</sup>  
Ratio: 28/1 \*\*
  - 50-6000 PSIG (3.45 - 413.69 bar)  
Diameter: 0.500"  
Area: 0.1964 in<sup>2</sup>  
Ratio: 64/1 \*\*
  - 100-10000 PSIG (6.89 - 689.5 bar)  
Diameter: 0.375"  
Area: 0.1104 in<sup>2</sup>  
Ratio: 114/1 \*\*
  - 300-15000 PSIG (20.68 - 1034.21 bar)  
Diameter: 0.312"  
Area: 0.0765 in<sup>2</sup>  
Ratio: 164/1 \*\*

\*\* 4.0" diameter diaphragm  
Diaphragm area: 12.5664 in<sup>2</sup>

- **FLOW (Cv):** 0.06, 0.12, or 0.20
- **VENT VALVE Cv:** 0.06
- **OPERATING TEMPERATURE:**
  - -15°F/-26°C to 212°F/100°C (BUNA-N)
  - -4°F/-20°C to 212°F/100°C (VITON®)
  - -65°F/-54°C to 212°F/100°C (EPDM)
  - 15°F/-9°C to 212°F/100°C (AFLAS)

*Vespel® & Viton® are registered trademarks of E.I. duPont de Nemours and Company  
AFLAS® is a registered trademark of the Asahi Glass Co., Ltd  
Krytox® is a registered trademark of e Chemours Company FC, LLC.*

*Contact factory for material certifications. Fees may apply.*

## MATERIALS OF CONSTRUCTION

- **BODY:**
  - 316 Stainless Steel
- **HOUSING, AIR ACTUATOR:**
  - 6061-T6 Aluminum, Clear Anodized
- **DIAPHRAGM, AIR ACTUATOR:**
  - Neoprene, nylon reinforced
- **WETTED PARTS, OTHER:**
  - 316 Stainless Steel
  - 17-4 Stainless Steel
- **BACK-UP RINGS:** PTFE, PCTFE
- **MAIN VALVE SEAT/VENT VALVE SEAT OPTIONS:**
  - Vespel®
- **MAIN/VENT VALVE STEM:**
  - 17-4 Stainless Steel, hardened
- **STANDARD LUBRICANT:**
  - Krytox® GPL 206

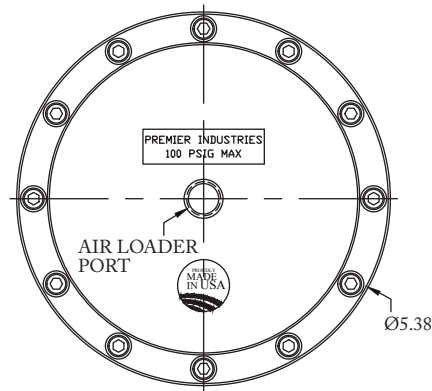
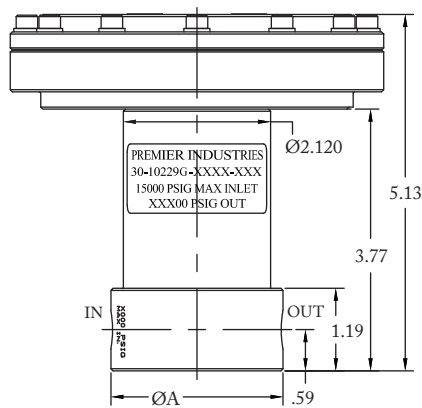
## PORTING

- **INLET/OUTLET PORTING OPTIONS:**
  - 1/4", 3/8" FNPT (standard)
  - 1/4", 3/8", 9/16" Medium Pressure
  - 1/4", 3/8" High Pressure
- **VENT PORT:** 1/4" inlet/outlet port type
- **LOAD PORT:**
  - 1/4" NPT (standard)
  - 1/4" SAE AS5202
  - 1/4" SAE J1926
  - 1/8" NPT

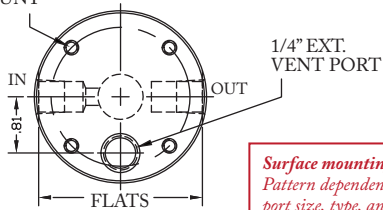
## OPTIONS

- Gauges
- Private label
- Panel mounting bracket: P/N: 30-10059  
(Ø2.15 panel hole)

**PART NUMBER: 30-10229G**



#10-32 UNF X .38 DP  
SURFACE MOUNT  
(OPTIONAL)



*Surface mounting holes:  
Pattern dependent on  
port size, type, and  
configuration*

PORT TYPE	ØA	FLATS
NPT	Ø2.48	—
1/4" OTHER	Ø2.48	2.36
3/8" M.P.	Ø2.98	2.81
3/8" H.P.	Ø3.23	2.98
9/16" M.P.	Ø3.23	2.98

PART #	-	1	2	3	4	-	5 6	7	-	MODS
30-10229G	-					-			-	






1	OUTLET PRESSURE	
3	10-1500 PSIG 0.69-103.4 Bar	Diameter: 1.000" Area: 0.7854 in <sup>2</sup> Ratio: 16/1 **
4	15-2500 PSIG 1.0-172.4 Bar	Diameter: 0.750" Area: 0.4418 in <sup>2</sup> Ratio: 28/1 **
6	50-6000 PSIG 3.4-413.7 Bar	Diameter: 0.500" Area: 0.1964 in <sup>2</sup> Ratio: 64/1 **
7	100-10000 PSIG 6.9-689.5 Bar	Diameter: 0.375" Area: 0.1104 in <sup>2</sup> Ratio: 114/1 **
8	300-15000 PSIG 20.68-1034.21 Bar	Diameter: 0.312" Area: 0.0765 in <sup>2</sup> Ratio: 164/1 **
<p><b>** 4.0" diameter diaphragm</b> Diaphragm area: 12.5664 in<sup>2</sup></p>		

### 15000 PSIG MAX INLET

The end user is responsible to ensure adequate fittings are used to connect regulator to plumbing.

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AFLAS® is a registered trademark of the Asahi Glass Co., Ltd

Contact factory for material certifications. Fees may apply.

2	PORTING CONFIGURATION
A	
C	
E	
L	
S	
3	PORT SIZE
4	1/4"
6	3/8"
9	9/16"*** (Only available in medium pressure)
4	PORT TYPE (1/4" vent port)
1	FNPT
4	Medium Pressure
5	High Pressure

5 6	O-RINGS
00	BUNA-N
01	AFLAS®
02	VITON-A®
05	EPDM
08	POLYURETHANE
11	FFKM (contact factory for pricing)
7	Cv MAIN VALVE (Valve seat material)
0	Cv 0.06 (VESPEL SP-1®)
1	Cv 0.12 (VESPEL SP-1®)
2	Cv 0.20 (VESPEL SCP-5000®)
MODIFICATIONS Separate multiple mods with a dash	
BLANK	None
AC	Krytox 240AC
AS	1/4" SAE AS5202 LOADER PORT
E	1/8" NPT AIR LOADER PORT
J	1/4" SAE J1926 LOADERPORT
NV	NON-VENTING
SM	SURFACE MOUNT