

SCF 3123AL SERIES

Air loaded, High Pressure
Back Pressure Regulators



Premier SCF 3123AL Series high pressure, air loaded, back pressure regulators are elastomer free, designed to stand up to the aggressive, solvent-like qualities of supercritical CO₂, while providing reliable and precise pressure regulation. These single stage, piston sensed regulators are designed for inlet and outlet pressures up to 15000 PSIG (*1034.21 bar*) and Cv 0.06.

Premier SCF 3123AL Series regulators are designed for compatibility with electro-pneumatic controllers, enabling piloted pressure control from an inert gas at low pressures (*100 psig / 6.89 bar max air load*).

FEATURES

- Designed for use with supercritical CO₂
- Compatible with electro-pneumatic controllers
- 15000 PSIG (*1034.21 bar*) MAX
- Cv 0.06
- Elastomer free
- 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:**
 - 300-15000 PSIG (20.68 - 1034.21 bar)
 - Diameter: 0.313"
 - Area: 0.0769 in²
 - Ratio: 163/1 **

** 4.0" diameter diaphragm
Diaphragm area: 12.5664 in²

- **FLOW (C_v):** 0.06
- **OPERATING TEMPERATURE:**
 - -110°F/-79°C to 165°F/74°C (PTFE)

PORTING

- **INLET PORTING:**
 - 1/4" medium pressure
- **OUTLET PORTING:**
 - 1/4" medium pressure

OPTIONS

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

MATERIALS OF CONSTRUCTION

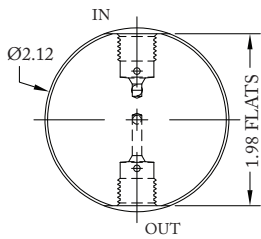
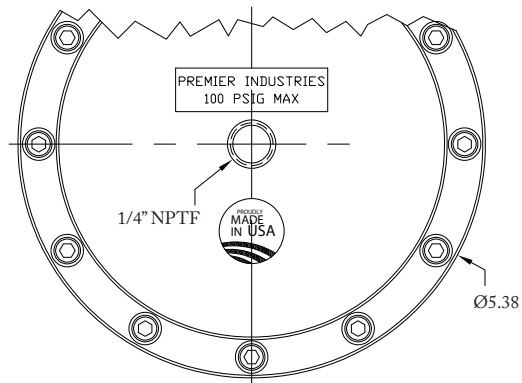
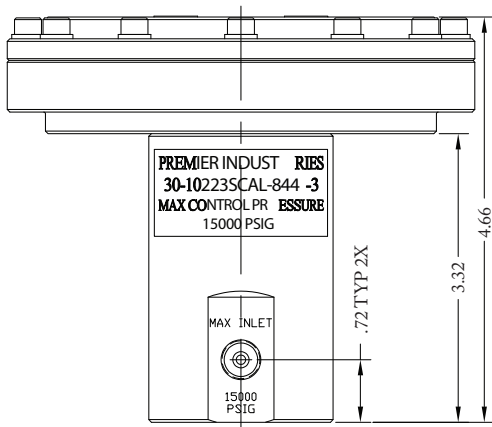
- **BODY:**
 - 316 Stainless Steel
- **BONNET:**
 - 17-4 Stainless Steel
- **HOUSING, AIR ACTUATOR:**
 - 6061-T6 Aluminum, Clear Anodized
- **DIAPHRAGM, AIR ACTUATOR:**
 - Neoprene, nylon reinforced
- **WETTED PARTS, OTHER:**
 - 316 Stainless Steel,
 - 17-4 Stainless Steel
 - PH15-7Mo Stainless Steel
- **SEALS:**
 - PTFE
- **MAIN VALVE SEAT:**
 - PEEK®

PEEK® is a registered trademark of Victrex PLC

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PART NUMBER: 30-10223SCAL



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PART NUMBER	-	1	2	3	-	4
30-10223SCAL	-				-	

1	CONTROL PRESSURE	
8	300-15000 PSIG 20.68-1034.21 Bar (stainless steel only)	Diameter: 0.313" Area: 0.0769 in ² Ratio: ¹⁶³ / ₁ **
<i>** 4.0" diameter diaphragm</i>		
2	PORT SIZE	
4	1/4"	
3	PORT TYPE	
4	Medium Pressure	
4	VALVE SEAT	
3	PEEK®	

15000 PSIG MAX INLET

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

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Contact factory for material certifications.
Fees may apply.