

SCF 3000AL SERIES

Air Loaded, High Pressure
Pressure Reducing Regulators



Premier SCF 3000AL Series regulators are elastomer free, designed to stand up to the aggressive, solvent-like qualities of supercritical CO₂, while providing reliable and precise pressure regulation. The Premier SCF 3000AL Series air loaded, piston sensed, single stage, high pressure, pressure reducing regulators feature inlet and outlet pressures up to 10000 PSIG (689.48 bar), and Cv 0.06, 0.12, 0.20, or 0.30.

FEATURES

- Designed for use with supercritical CO₂
- Compatible with electro pneumatic controllers
- Captured venting
- Elastomer free
- Very competitive 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

- **MAXIMUM INLET PRESSURE:**
 - REGULATOR:
 - 10000 PSIG / 689.5 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 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 (C_v):** 0.06, 0.12, 0.20, 0.30
- **AMBIENT OPERATING TEMPERATURES:***
 - -400°F/-240°C to 212°F/100°C (PTFE)

**ALWAYS TEST UNDER SERVICE CONDITIONS.*

MATERIALS OF CONSTRUCTION

- **BODY:**
 - 316 Stainless Steel
- **HOUSING, AIR ACTUATOR :**
 - 6061-T6 Aluminum/clear anodized
- **DIAPHRAGM, AIR ACTUATOR :**
 - Neoprene, nylon fabric-reinforced
- **MAIN/VENT VALVE STEM:**
 - 17-4 Stainless Steel (hardened)
- **MAIN VALVE SEAT:**
 - PEEK®
- **VENT VALVE SEAT:**
 - PEEK®
- **SEALS:**
 - PTFE
- **OTHER WETTED PARTS:**
 - 316 Stainless Steel
 - 17-4 Stainless Steel

PORTING

- **INLET/OUTLET PORT OPTIONS**
 - 1/4", 3/8", 1/2" FNPT
 - 1/4", 3/8", 1/2" SAE J1926
 - 1/4", 3/8", 1/2" SAE AS5202
 - 1/4", 3/8", 9/16" Medium Pressure
 - 1/4", 3/8", High Pressure
- **AIR ACTUATOR PORT:**
 - 1/4" FNPT (*standard*)
- **VENT:** 1/4" (*inlet/outlet port type*)

OPTIONAL ITEMS

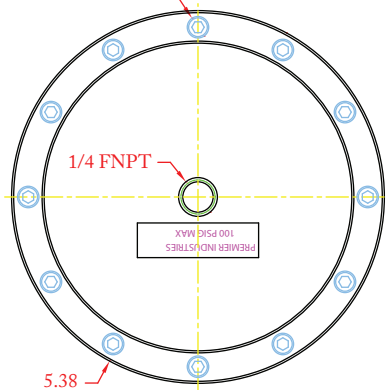
- Panel mounting bracket: P/N: 30-10059 (Ø2.15 panel hole)
- Private label

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Contact factory for material certifications. Fees may apply.

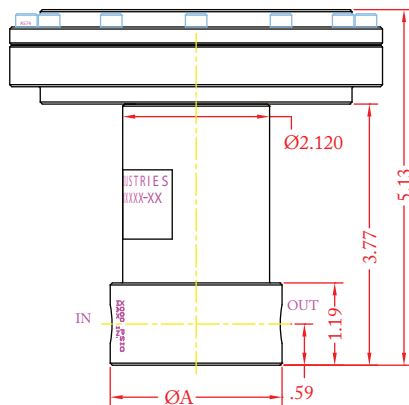
PART NUMBER: 30-10219G

#10-32 UNF-3A X 3/4"
SHCS ASTM A574 12X



PORT TYPE	ØA	FLATS
NPT	Ø2.48	—
1/4" J1926, M.P., H.P.	Ø2.48	2.36
1/4" AS5202	Ø2.98	2.81
3/8" SAE, M.P., H.P.	Ø2.98	2.81
1/2" SAE	Ø3.23	2.98
9/16" M.P.	Ø3.23	2.98

3/8" & larger 'L' configuration bodies require a larger ØA

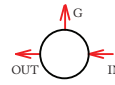
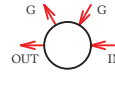
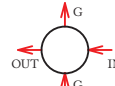



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PART #:	-	1	2	3	4	5	-	MODS
30-10219SC	-						-	

1	OUTLET PRESSURE	
3	10-1500 psig (0.69-103.4 bar)	<i>Diameter: 1.000" Area: 0.7854 in² Ratio: 16/1 *</i>
4	15-2500 psig (1.0-172.4 bar)	<i>Diameter: 0.750" Area: 0.4418 in² Ratio: 28/1 *</i>
6	50-6000 psig (3.4-413.7 bar)	<i>Diameter: 0.500" Area: 0.1964 in² Ratio: 64/1 *</i>
7	100-10000 psig (6.9-689.5 bar) (stainless steel only)	<i>Diameter: 0.375" Area: 0.1104 in² Ratio: 114/1 *</i>
<i>* 4.0" diameter diaphragm Diaphragm area: 12.5664 in²</i>		
2	FLOW (Cv)	
0	Cv 0.06	
1	Cv 0.12	
2	Cv 0.20	
3	Cv 0.30	
<i>Vent Valve: Cv 0.06</i>		

3	PORTING CONFIG.
A	
C	
L	
S	
4	PORT SIZE (inlet/outlet)
4	1/4"
6	3/8"
8	1/2"***
9	9/16"****
<i>**1/2" ports not available in medium pressure or high pressure</i>	
<i>***9/16" ports only available in medium pressure</i>	
<i>GAUGE PORTS: 1/4" FNPT</i>	
<i>VENT PORT: 1/4" inlet/outlet port type</i>	

5	PORT TYPE (inlet/outlet/vent)
1	FNPT
2	SAE J1926
3	SAE AS5202
4	Medium pressure
5	High pressure
MODIFICATIONS	
<i>Separate multiple mods with a dash</i>	
Blank	None
AS	1/4" SAE AS5202 LOADER PORT
E	1/8" NPT AIR LOADER PORT
J	1/4" SAE J1926 LOADER PORT
SM	SURFACE MOUNT

10000 PSIG MAX INLET
The end user is responsible to ensure adequate fittings are used to connect regulator to plumbing.

Contact factory for material certifications. Fees may apply.