

3116SL SERIES

High Pressure, High Flow, Stacked Loader
Back Pressure Regulators



Premier 3116SL Series regulators are piston sensed, back pressure regulators rated for inlet pressures up to 10000 PSIG (689.48 bar), control pressures up to 6000 psig (413.69 bar) and Cv 1.0 or 2.0. Premier 3116SL Series regulators feature a four-tier air loader for compatibility with electropneumatic controllers, enabling piloted pressure control from an inert gas at low pressures (110 psig / 7.5 bar max air load). Premier 3116SL Series regulators are available with a wide range of outlet and inlet configurations.

FEATURES

- Compatible with electro-pneumatic controllers
- High flow capacity (Cv): 1.0 or 2.0
- 10000 psig max inlet pressure (689.48 bar)
- Machined bar stock body 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:**
 - 6000 PSIG / 413.7 bar
(316 stainless steel body, standard)
 - 10000 PSIG / 689.48 bar
(17-4 stainless steel body)
- **CONTROL PRESSURE RANGES:**
 - 10-1500 PSIG (0.7-103.4 bar)
 - 15-3000 PSIG (1.0-206.8 bar)
 - 50-6000 PSIG (3.5-413.7 bar)
- **FLOW (Cv):** 1.0 or 2.0
- **OPERATING TEMPERATURE:****
 - -15°F/-26°C to 212°F/100°C (BUNA-N)
 - -4°F/-20°C to 400°F/204°C (Viton®)
 - -65°F/-54°C to 302°F/150°C (EPDM)
 - 0°F/-18°C to 620°F/327°C (KALREZ® 7075)

** Lower temperature compounds available

MATERIALS OF CONSTRUCTION

- **BODY OPTIONS:**
 - 316 Stainless Steel (standard)
 - 17-4 Stainless Steel
- **BONNET:**
 - 17-4 Stainless Steel
- **MAIN VALVE STEM:** 17-4 Stainless Steel
- **MAIN VALVE SEAT:** Vespel®
- **BACK-UP RINGS:** PTFE &/or PCTFE
- **O-RING MATERIAL OPTIONS:**
 - BUNA-N
 - Viton-A®
 - EPDM
 - Kalrez® 7075 (contact factory for pricing)
- **OTHER WETTED PARTS:**
 - 316 Stainless Steel
 - 17-4 Stainless Steel
- **STANDARD LUBRICANT:**
 - Krytox® GPL 206

PORTING

- **INLET & OUTLET OPTIONS:**
 - 3/8" FNPT, SAE J1926, SAE AS5202, BSPP
 - 1/2" FNPT, SAE J1926, SAE AS5202, BSPP
 - 3/4" FNPT, SAE J1926, SAE AS5202, BSPP
 - 1" FNPT, SAE J1926, SAE AS5202, BSPP
- **GAUGE PORTS:** 1/4" FNPT
- **LOAD PORT:** 1/4" FNPT

OPTIONS

- Private label

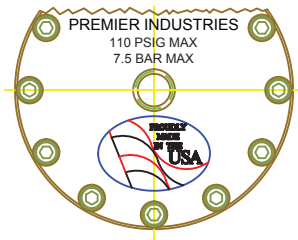
SAE AS5202 supersedes MS33649

Viton-A®, Vespel®, and Kalrez® are registered trademarks of E.I. duPont de Nemours & Company.

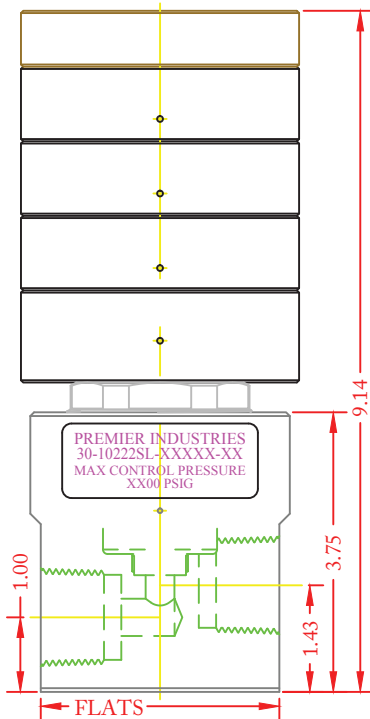
Krytox® is a registered trademark of The Chemours Company FC, LLC.

Contact factory for material certifications. Fees may apply.

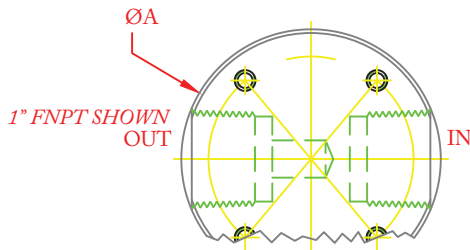
PART NUMBER: 30-10222SLG



PORT TYPE	ØA	FLATS
NPT	Ø3.23	—
1" NPT	Ø3.48	3.20
1/2" SAE	Ø3.48	3.32
3/4" SAE	Ø3.98	3.72
1" SAE	Ø3.98	3.62



AIRLOADER TO SENSOR RATIOS		
	AREA	RATIO-CALCULATED
TIERS 4	23.169 IN²	
6K SENSOR Ø.625	0.307 IN ²	75/1
3K SENSOR Ø.938	0.691 IN ²	33.5/1
1.5K SENSOR Ø1.129	1.001 IN ²	23/1



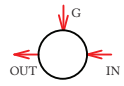

*Optional Surface
mounting holes:
1/4-20 UNC X .5 DP
bolt circle subject to body size*

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Back Pressure Regulators

PART #	-	1	2	3	4	5	-	6 7	-	MODS
30-10222SLG	-						-		-	

**STANDARD: 316 STAINLESS STEEL BODY,
17-4 STAINLESS STEEL BONNET, 6000 PSIG MAX INLET**
SEE MODIFICATIONS FOR 10000 PSIG MAX INLET OPTION

1	CONTROL PRESSURE
3	10-1500 PSIG (0.7-103.4 BAR)
4	15-3000 PSIG (1.0-206.8 BAR)
6	50-6000 PSIG (3.5-413.7 BAR)
2	Cv (FLOW)
1	Cv 1.0
2	Cv 2.0
3	PORT CONFIGURATIONS (FROM TOP)
H	
S	 (STANDARD)

4	PORT SIZE (INLET/OUTLET)
6	3/8"
8	1/2"
T	3/4"
W	1"
GAUGE PORTS: 1/4" FNPT	
5	PORT TYPE (INLET/OUTLET)
1	FNPT
2	SAE J1926
3	SAE AS5202*
P	BSPP
<i>*SAE AS5202 supersedes MS33649</i>	
67	O-RING MATERIAL
00	BUNA-N
02	VITON®
05	EPDM
11	KALREZ® 7075 <i>Contact factory for pricing</i>

MODIFICATIONS	
Blank	None
AC	KRYTOX® 240AC
SM	SURFACE MOUNT
T	10K 17-4 STAINLESS STEEL BODY

*6000 PSIG MAX INLET (316 stainless steel body)
10000 PSIG MAX INLET (17-4 stainless steel body)
The end user is responsible to ensure adequate fittings are used to connect regulator to plumbing*

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