

# 2310S SERIES

Diaphragm Sensed, Stable Set Pressure  
Pressure Reducing Regulators



The Premier 2310S is a diaphragm sensed, single stage regulator capable of significantly reducing the decaying inlet characteristic (supply pressure effect) that is typically characteristic of single stage regulator designs. The result: stable delivery pressures in the compact design of a single stage. An elastomer free design is available with an Elgiloy® diaphragm, PTFE seals, and a small internal volume for compatibility with high purity applications; the elgiloy diaphragm is conducive to high cycle applications and wide temperature swings. The Premier 2310S Series regulator is designed for inlet pressures up to 3000 PSIG (206.8 bar).

## FEATURES

- Reduced decaying inlet characteristic (*supply pressure effect*) in a single stage design
- Reduced contamination and outgassing with Elgiloy® diaphragm, stainless body, & stainless wetted parts
- Compact size
- Elastomer free option available
- Very competitive pricing
- Machined bar stock body, and bonnet eliminates porosity found in castings
- Elgiloy® diaphragm conducive to high cycle applications and wide temperature swings
- 2, 3, and 4 port designs

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

## SPECIFICATIONS

- **MAX INLET PRESSURE:**
  - 3000 PSIG (206.8 bar)
- **OUTLET PRESSURE RANGES:**
  - 0 - 15 PSIG (0-1.03 bar)
  - 0 - 30 PSIG (0-2.07 bar)
  - 0 - 50 PSIG (0-3.45 bar)
  - 0 - 75 PSIG (0-5.17 bar)
  - 0 - 100 PSIG (0-6.89 bar)
  - 0 - 150 PSIG (0-10.34 bar)
- **WEIGHT:** Approx. 5 oz.
- **FLOW (Cv):** 0.05

## PORTING *(2, 3, and 4 port options)*

- **STANDARD INLET:**
  - 1/8-27 FNPT (1 or 2)
- **OUTLET PORTING:**
  - 1/8-27 FNPT (1 or 2)

## OPTIONS

- Gauges (*brass or stainless steel*)
- Private label

## MATERIALS OF CONSTRUCTION

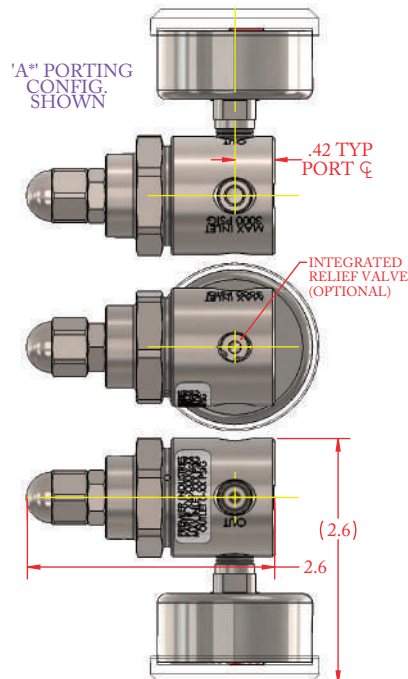
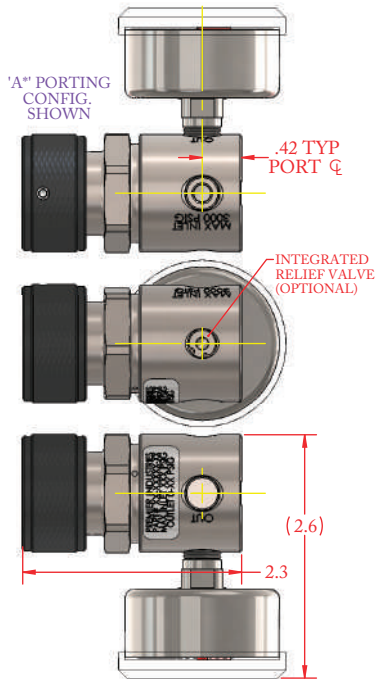
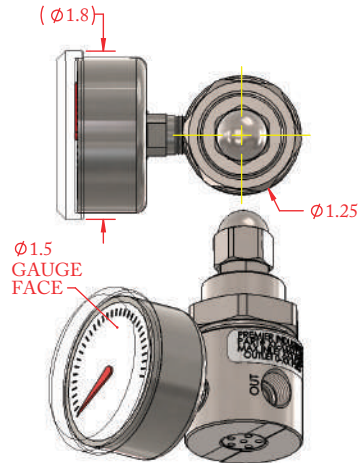
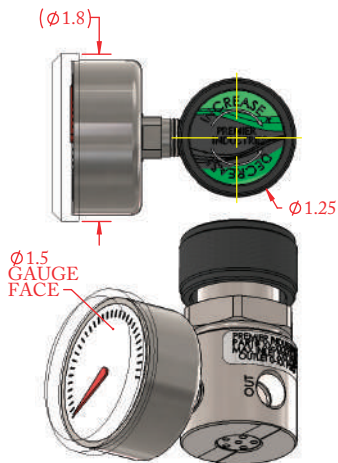
- **BODY OPTIONS:**
  - SAE 360 Brass, Nickel Plated
  - 316 Stainless Steel
- **BONNET OPTIONS:**
  - SAE 360 Brass, Nickel Plated (*standard*)
  - 316 Stainless Steel
- **DIAPHRAGM:** Elgiloy®
- **MAIN VALVE & MAIN VALVE RETAINER:**
  - 316 Stainless Steel (*316 stainless steel body option*)
  - 303 Stainless Steel (*all other body options*)
- **SEAT & OTHER SEALS:** PTFE
- **BALANCED SEAL RETAINER:**
  - 316 Stainless Steel
- **BALANCED SEAL:** Viton-A®
- **BALANCED SEAL BACKUP:** PTFE
- **OPTIONAL INTEGRAL RELIEF VALVE:**
  - 316 Stainless Steel (*316 stainless steel body*),  
*Viton-A® valve seat*
  - 303 Stainless Steel (*all other body options*),  
*Viton-A® valve seat*

# 2310S SERIES


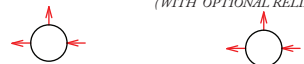
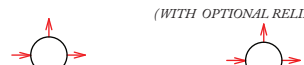

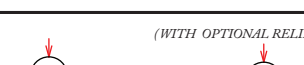

Diaphragm Sensed, Stable Set Pressure  
Pressure Reducing Regulators

PART NUMBER 50-12861 | *standard design*

PART NUMBER 50-12897 | *with tamper resistant acorn nut*



PART #	-	1	2	-	3	-	4	5
50-12861	-			-		-		


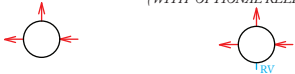




1	BODY/BONNET MATERIALS (MAX. INLET PRESSURE)	
1	SAE 360 Brass, Nickel Plated (body & bonnet)	
5	316 Stainless Steel, cleaned per spec #515 (body) SAE 360 Brass, Nickel Plated (bonnet)	
7	316 Stainless Steel, cleaned per spec #515 (body) 316 Stainless Steel, cleaned per spec #515 (bonnet)	
2	BODY PORTING	
S	S porting, 2 port	 (WITH OPTIONAL RELIEF VALVE)
A	A porting, 3 port	 (WITH OPTIONAL RELIEF VALVE)
B	B porting, 3 port	 (WITH OPTIONAL RELIEF VALVE)
G	G porting, 3 port	 (WITH OPTIONAL RELIEF VALVE)
H	H porting, 3 port	 (WITH OPTIONAL RELIEF VALVE)
L	L porting, 4 port	 RELIEF VALVE NOT AVAILABLE ON 'L' PORTING CONFIGURATION

3	OUTLET PRESSURE	RELIEF PRESSURE IF APPLICABLE
1	0-15 psig (0-1.03 bar)	60-90 psig (4.14-6.21 bar)
2	0-30 psig (0-2.07 bar)	60-90 psig (4.14-6.21 bar)
3	0-50 psig (0-3.45 bar)	90-120 psig (6.21-8.27 bar)
4	0-75 psig (0-5.17 bar)	90-120 psig (6.21-8.27 bar)
5	0-100 psig (0-6.89 bar)	220-260 psig (15.17- 7.93 bar)
6	0-150 psig (0-10.34 bar)	220-260 psig (15.17- 7.93 bar)
4	GAUGES	
0	None	
1	Include gauges	
<p><i>Gauges not available for 'S' porting configuration, Outlet gauge only on 'A' and 'B' configurations, Inlet gauge only on 'G' and 'H' porting configurations, Both inlet &amp; outlet gauge on 'L' porting configuration</i></p>		
5	INTEGRATED RELIEF VALVE OPTIONAL	
0	No relief valve	
1	Include relief valve	
<p><i>Relief valve not available on 'L' porting configuration.</i></p>		

Contact factory for material certifications. Fees may apply.

PART #	-	1	2	-	3	4	-	XXX
50-12897	-			-			-	

## PRESET OUTLET PRESSURE

1	BODY/BONNET MATERIALS (MAX. INLET PRESSURE)	
1	SAE 360 Brass, Nickel Plated (body & bonnet)	
5	316 Stainless Steel, cleaned per spec #515 (body) SAE 360 Brass, Nickel Plated (bonnet)	
7	316 Stainless Steel, cleaned per spec #515 (body) 316 Stainless Steel, cleaned per spec #515 (bonnet)	
2	BODY PORTING	
S	S porting, 2 port	 (WITH OPTIONAL RELIEF VALVE)
A	A porting, 3 port	 (WITH OPTIONAL RELIEF VALVE)
B	B porting, 3 port	 (WITH OPTIONAL RELIEF VALVE)
G	G porting, 3 port	 (WITH OPTIONAL RELIEF VALVE)
H	H porting, 3 port	 (WITH OPTIONAL RELIEF VALVE)
L	L porting, 4 port	 RELIEF VALVE NOT AVAILABLE ON 'L' PORTING CONFIGURATION

3	GAUGES
0	None
1	Include gauges
<p><i>Gauges not available for 'S' porting configuration, Outlet gauge only on 'A' and 'B' configurations, Inlet gauge only on 'G' and 'H' porting configurations, Both inlet &amp; outlet gauge on 'L' porting configuration</i></p>	
4	INTEGRATED RELIEF VALVE OPTIONAL
0	No relief valve
1	Include relief valve
<p><i>Relief valve not available on 'L' porting configuration.</i></p> <p><b>IF REGULATOR INCLUDES A RELIEF VALVE, RELIEF SETTINGS ARE AS FOLLOWS:</b></p> <p><i>'XXX' ≤ 30 PSIG OUT / 60 PSIG RELIEF SETTING; 30 &lt; 'XXX' ≤ 75 PSIG OUT / 90 PSIG RELIEF SETTING. 75 &lt; 'XXX' ≤ 100 / 160 PSIG RELIEF SETTING; 100 &lt; 'XXX' ≤ 150 / 225 PSIG RELIEF SETTING</i></p>	
XXX	PRESET OUTLET PRESSURE
<p><b>SPECIFY OUTLET PRESSURE PRESET 'XXX' IN PSIG.</b></p> <p>MINIMUM 10 PSIG ('010'), MAXIMUM 150 PSIG ('150').</p> <p><i>OUTLET SET AT 2000 PSIG INLET (UNLESS NOTED OTHERWISE ON WORK ORDER.)</i></p>	

Contact factory for material certifications. Fees may apply.