



DIAPHRAGM SENSED STABLE SET PRESSURE *Pressure Reducing Regulator*

2310S SERIES

PREMIER INDUSTRIES

1590 99th Ln NE,
Minneapolis, MN 55449
763-786-4020



MADE IN THE USA

Minneapolis, MN

DESCRIPTION

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 port and 4 port designs

2310S SERIES

DIAPHRAGM SENSED STABLE SET PRESSURE *Pressure Reducing Regulator*

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

MATERIALS OF CONSTRUCTION

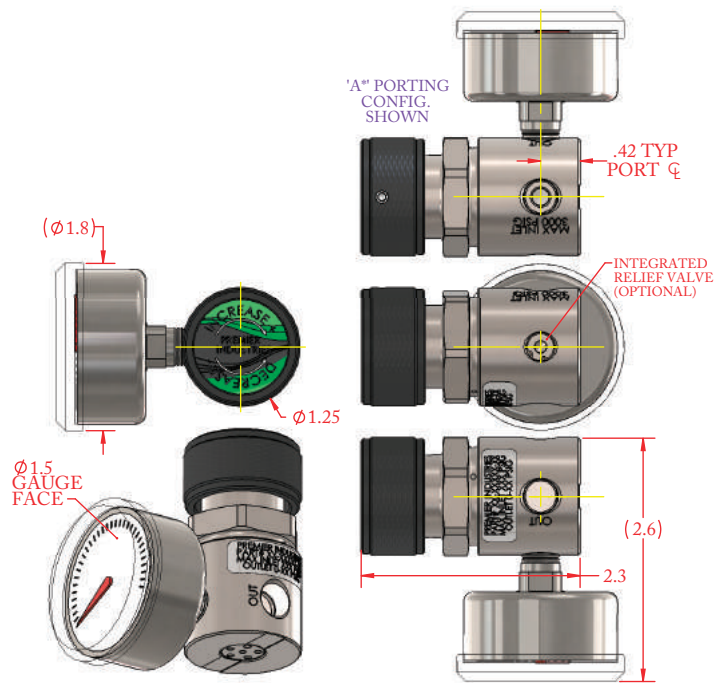
- **BODY OPTIONS:**
 - SAE 360 Brass, Nickel Plated
 - 6061-T6 Aluminum, Nickel Plated
 - 303 Stainless Steel
 - 316 Stainless Steel
- **BONNET OPTIONS:**
 - SAE 360 Brass, Nickel Plated (standard)
 - 303 Stainless Steel
 - 316 Stainless Steel
- **DIAPHRAGM:** Elgiloy®
- **MAIN VALVE & MAIN VALVE RETAINER:**
 - 316 Stainless Steel (316 stainless steel body option)
 - 303 Stainless Steel (all other body options)
- **BONNET OPTIONS:**
 - SAE 360 Brass, Nickel Plated (standard)
 - 303 Stainless Steel
 - 316 Stainless Steel
- **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

PORTING (*2 and 4 port options)

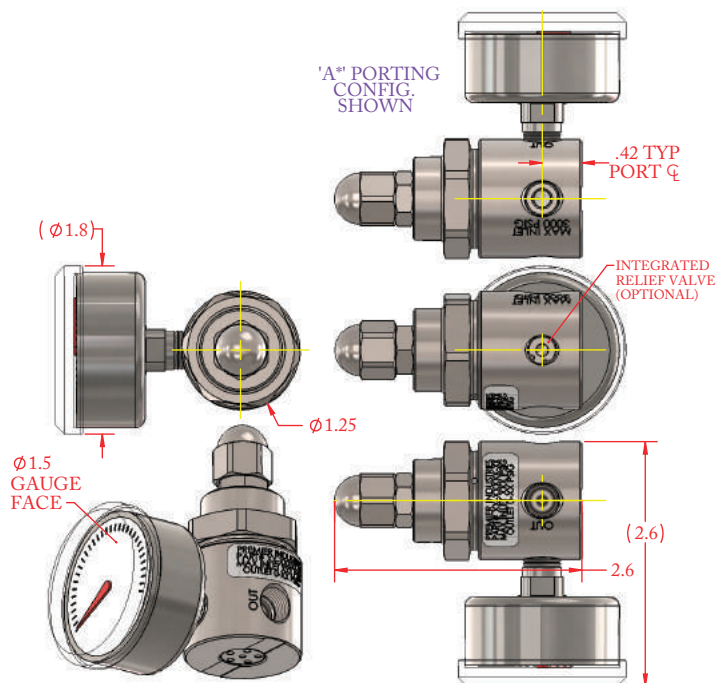
- **STANDARD INLET:**
 - 1/8-27 FNPT (1 or 2)
- **OUTLET PORTING:**
 - 1/8-27 FNPT (1 or 2)

OPTIONS

- Gauges (brass or stainless steel)
- Private label



(part number: 50-12861 shown)














(part number: 50-12897 shown)



DIAPHRAGM SENSED STABLE SET PRESSURE Pressure Reducing Regulator



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

1	BODY/BONNET MATERIALS (MAX. INLET PRESSURE)	
1	SAE 360 Brass, Nickel Plated <i>(body & bonnet)</i>	
2	6061-T6 Aluminum, Nickel Plated <i>(body)</i> SAE 360 Brass, Nickel Plated <i>(bonnet)</i>	
3	303 Stainless Steel, cleaned per spec #515 <i>(body)</i> SAE 360 Brass, Nickel Plated <i>(bonnet)</i>	
4	303 Stainless Steel, cleaned per spec #515 <i>(body)</i> 303 Stainless Steel, cleaned per spec #515 <i>(bonnet)</i>	
5	316 Stainless Steel, cleaned per spec #515 <i>(body)</i> SAE 360 Brass, Nickel Plated <i>(bonnet)</i>	
6	316 Stainless Steel, cleaned per spec #515 <i>(body)</i> 303 Stainless Steel, cleaned per spec #515 <i>(bonnet)</i>	
7	316 Stainless Steel, cleaned per spec #515 <i>(body)</i> 316 Stainless Steel, cleaned per spec #515 <i>(bonnet)</i>	
2	BODY PORTING	
S	S porting, 2 port 	<small>(WITH OPTIONAL RELIEF VALVE)</small> 
A	A porting, 3 port 	<small>(WITH OPTIONAL RELIEF VALVE)</small> 
B	B porting, 3 port 	<small>(WITH OPTIONAL RELIEF VALVE)</small> 
G	G porting, 3 port 	<small>(WITH OPTIONAL RELIEF VALVE)</small> 
H	H porting, 3 port 	<small>(WITH OPTIONAL RELIEF VALVE)</small> 
L	L porting, 4 port 	<small>RELIEF VALVE NOT AVAILABLE ON 'L' PORTING CONFIGURATION</small>

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	
<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 & outlet gauge on 'L' porting configuration</i>		
5	INTEGRATED RELIEF VALVE OPTIONAL	
0	No relief valve	
1	Include relief valve	
<i>Relief valve not available on 'L' porting configuration.</i>		



DIAPHRAGM SENSED STABLE SET PRESSURE Pressure Reducing Regulator



PRESET OUTLET PRESSURE

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

1	BODY/BONNET MATERIALS (MAX. INLET PRESSURE)
1	SAE 360 Brass, Nickel Plated <i>(body & bonnet)</i>
2	6061-T6 Aluminum, Nickel Plated <i>(body)</i> SAE 360 Brass, Nickel Plated <i>(bonnet)</i>
3	303 Stainless Steel, cleaned per spec #515 <i>(body)</i> SAE 360 Brass, Nickel Plated <i>(bonnet)</i>
4	303 Stainless Steel, cleaned per spec #515 <i>(body)</i> 303 Stainless Steel, cleaned per spec #515 <i>(bonnet)</i>
5	316 Stainless Steel, cleaned per spec #515 <i>(body)</i> SAE 360 Brass, Nickel Plated <i>(bonnet)</i>
6	316 Stainless Steel, cleaned per spec #515 <i>(body)</i> 303 Stainless Steel, cleaned per spec #515 <i>(bonnet)</i>
7	316 Stainless Steel, cleaned per spec #515 <i>(body)</i> 316 Stainless Steel, cleaned per spec #515 <i>(bonnet)</i>
2	BODY PORTING
S	S porting, 2 port <small>(WITH OPTIONAL RELIEF VALVE.)</small>
A	A porting, 3 port <small>(WITH OPTIONAL RELIEF VALVE.)</small>
B	B porting, 3 port <small>(WITH OPTIONAL RELIEF VALVE.)</small>
G	G porting, 3 port <small>(WITH OPTIONAL RELIEF VALVE.)</small>
H	H porting, 3 port <small>(WITH OPTIONAL RELIEF VALVE.)</small>
L	L porting, 4 port <small>RELIEF VALVE NOT AVAILABLE ON 'L' PORTING CONFIGURATION</small>

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