

PREMIER  INDUSTRIES

CALIBRATION GAS,  
INDUSTRIAL HYGIENE,  
& BREATH ALCOHOL MARKETS



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# CALIBRATION GAS. INDUSTRIAL HYGIENE. BREATH ALCOHOL. REGULATORS BY PREMIER.

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You should expect the same accuracy and consistency from the regulators you choose, as you do from the calibration gases you buy. Whether calibrating toxic gas monitors or breath alcohol devices, you want to have confidence in the equipment you are using. Here at Premier Industries, we manufacture and test all of our equipment to meet rigid specifications while keeping in mind the specific needs and expectations of our customers.

We offer a wide range of regulators designed specifically for the calibration gas, industrial hygiene, and breath alcohol markets. Our regulators are offered with a variety of materials (with varying weight, strength, degrees of corrosion resistance etc.), flow capacities, and inlet/outlet pressure ranges. With the flexibility of optional port alignments, port sizes/types, relief and shut off valves etc, Premier regulators provide maximum versatility and compatibility

for your unique product application. If you do not see a standard model that suits your needs, please contact us; we would be happy to help you with a custom design or modification.

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“YOU SHOULD EXPECT THE SAME ACCURACY AND CONSISTENCY FROM THE REGULATORS YOU CHOOSE, AS YOU DO FROM THE CALIBRATION GASES YOU BUY.”

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# OUR STORY

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Premier Industries was established in 1995 as a designer and manufacturer of proprietary specialty gas and hydraulic regulators, valves, and systems, which now service a diverse market worldwide. We offer a standard product line, alongside custom engineering to meet the demands of a multi-faceted client base, and are continually adding new technology and processes to meet the evolving needs of the market.

We are proud to be a vertically integrated company that has the ability and means to produce high quality products from concept to completion. All of our products are designed, manufactured, assembled, and tested right here in Blaine, Minnesota; they are truly and proudly American made.

At the end of the day, we want to take good care of our customers. We listen to them, we respond to their needs, and we design regulators to fit those needs. No automated messaging systems here, give us a call, and we can talk about finding the right regulator for your application.

## TOTAL QUALITY CONTROL

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We have integrated the design, engineering, manufacturing, inspection, assembly, testing, and shipping of our regulators, allowing us to have complete control and visibility over the quality of our product from start to finish.

## FAST TURN AROUND

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Our engineering team is highly responsive with over 100 years of regulator design experience, enabling us to turn around custom designs quickly and efficiently.

## MODERN & INNOVATIVE TECHNOLOGY

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Our 26,000 square foot location in Minnesota is home to our high speed multi axis CNC turn/mill machines, swiss turning centers, CNC single spindle turning centers, CNC milling machines, high pressure testing stations, and more. From engineering, to programming and testing, we use these tools to improve the quality of your product and the efficiency of its production.



# INDUSTRIES SERVED

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SPECIALTY GAS

CONFINED SPACE /  
AIR MONITORING

BREATH ALCOHOL

PETROCHEMICAL

INDUSTRIAL

MILITARY






ANALYTICAL

FOOD & BEVERAGE





ENVIRONMENTAL

MEDICAL




# PRESSURE REDUCING REGULATORS

SERIES	FEATURES	MAX INLET	FLOW	INLET	OUTLET
<b>2700 SERIES,</b> <i>Fixed flow, rotary valve</i> 	<ul style="list-style-type: none"> <li>Fixed flow provides a precise and constant flow at the preset flow rate</li> <li>Rotary shut off valve, with black anodized hand knob</li> <li>Wide variety of materials &amp; configurations</li> </ul>	1000 psig (68.9 bar)	Fixed, 0.25-9.0 LPM	5/8-18 UNF (C10) CGA 600  <i>(Contact factory for other options)</i>	3/16" hose barb  <i>(Contact factory for other options)</i>
<b>2700 SERIES,</b> <i>Fixed flow, trigger valve</i> 	<ul style="list-style-type: none"> <li>Fixed flow provides a precise and constant flow at the preset flow rate</li> <li>Trigger valve actuates flow (bump testing and calibration tests) and can be locked in the "on" position for continuous flow</li> </ul>	1000 psig (68.9 bar)	Fixed, 0.25-2.5 LPM	5/8-18 UNF (C10) CGA 600  <i>(Contact factory for other options)</i>	OD tube with 0.03 orifice
<b>2700 SERIES,</b> <i>Fixed flow, push button valve</i> 	<ul style="list-style-type: none"> <li>Fixed flow provides a precise flow at the preset flow rate</li> <li>Push button shut off valve for easy operation</li> <li>40 micron 316 stainless steel filter</li> <li>Wide variety of materials &amp; configurations</li> </ul>	1000 psig (68.9 bar)	Fixed, 1.5 LPM  $\pm 0.5$ LPM	5/8-18 UNF (C10)  <i>(Contact factory for other options)</i>	1/8" hose barb
<b>2700 SERIES,</b> <i>Fixed flow, slide valve</i> 	<ul style="list-style-type: none"> <li>Fixed flow provides a precise and constant flow at the preset flow rate</li> <li>Slide valve</li> <li>40 micron 316 stainless steel filter</li> <li>Machined bar stock body and bonnet reduce particle shedding &amp; contamination</li> </ul>	1000 psig (68.9 bar)	Fixed, 0.1-6.0 LPM	5/8-18 UNF (C10) CGA 600	1/8" hose barb 3/16" hose barb
<b>2700 SERIES,</b> <i>Fixed flow, solenoid control</i> 	<ul style="list-style-type: none"> <li>Fixed flow provides a precise and constant flow at the preset flow rate</li> <li>Solenoid outlet control</li> <li>40 micron 316 stainless steel filter</li> <li>Machined bar stock body and bonnet reduce particle shedding &amp; contamination</li> </ul>	1000 psig (68.9 bar)	Fixed, 0.3, 0.7, 0.8 LPM  $\pm 0.1$ LPM	5/8-18 UNF (C10)	1/8" FNPT with 3/16" hose barb

# PRESSURE REDUCING REGULATORS

SERIES	FEATURES	MAX INLET	FLOW	INLET	OUTLET
<p><b>2701 SERIES,</b> <i>Miniature, Fixed flow</i></p> 	<ul style="list-style-type: none"> <li>Fixed flow provides a precise and constant flow at the preset flow rate</li> <li>Our smallest, most compact &amp; economical fixed flow regulator</li> <li>Rotary shut off valve is designed with a PTFE seat for easy shut-off.</li> <li>Flows are set using a unique integrated flow adjustment valve prior to shipment</li> <li>Wide variety of shut-off options</li> </ul>	<p>3000 PSIG (206.84 bar) <i>1/4" FNPT</i></p> <p>1500 PSIG (103.42 bar) <i>C10 (5/8-18 unf)</i></p> <p>500 PSIG (34.47 bar), <i>CGA 600</i></p> <p><i>dependent upon configuration</i></p>	<p>Fixed, 0.1-4.0 LPM</p>	<p>5/8-18 UNF (C10) 1/4" FNPT 1/8" FNPT</p> <p>Compatible CGA connections available upon request  <i>(Contact factory for other options)</i></p>	<p>3/16" Hose Barb 1/4" hose barb 1/8", 1/4" FNPT 1/8", 1/4" MNPT <i>(Contact factory for other options)</i></p>
<p><b>2900 SERIES,</b> <i>Adjustable flow</i></p> 	<ul style="list-style-type: none"> <li>Click stop, 12 position, variable flow settings</li> <li>Integral pressure relief valve</li> <li>Optional two stage design</li> <li>Machined bar stock body and bonnet reduce particle shedding &amp; contamination</li> </ul>	<p>3500 PSIG (241.3 bar)</p> <p><i>dependent upon configuration</i></p>	<p>Adjustable, 0.3, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 5.0, 6.0, 7.0, 8.0 SLPM (11 adjustable settings)</p>	<p>5/8-18 UNF (C10) 1/8" 1/4" FNPT</p> <p><b>ADAPTERS:</b> CGA adapters</p>	<p>1/8" FNPT 3/16", or 1/4" Hose Barb</p>
<p><b>4902 SERIES,</b> <i>Demand flow</i></p> 	<ul style="list-style-type: none"> <li>Saves calibration gas by only transferring as much gas as demanded by the instrument and shutting off when not in use (no on/off valve needed!)</li> <li>Unique high flow capability allows multiple analyzers on a single docking station</li> <li>Integral relief valve</li> <li>40 Micron stainless steel inlet filter</li> </ul>	<p>3000 psig (206.84 bar)</p>	<p>3.0 LPM @ 3" H2O</p>	<p>C10 integrated 1/4 FNPT, <i>(Standard)</i> 1/4 FNPT 1/8 FNPT</p> <p><b>ADAPTERS:</b> CGA adapters C10 adapter</p>	<p>1/8" FNPT <i>(Standard)</i></p> <p><b>ADAPTERS:</b> 3/16" hose barb <i>(Standard)</i> 1/8" hose barb 1/4" hose barb</p>
<p><b>4903 SERIES,</b> <i>Miniature, Demand flow</i></p> 	<ul style="list-style-type: none"> <li>Compact design</li> <li>Saves calibration gas by only transferring as much gas as demanded by the instrument and shutting off when not in use (no on/off valve needed!)</li> <li>Integral relief valve</li> <li>Eliminates the need for sample bags, flow meters, or special operator training</li> </ul>	<p>3000 psig (206.84 bar)</p>	<p>3.0 LPM @ 3" H2O</p>	<p>1/4 FNPT <i>(Standard)</i> C10 integrated 1/4 FNPT, 1/8 FNPT</p> <p><b>ADAPTERS:</b> CGA adapters C10 adapter</p>	<p>1/4" hose barb 3/16" hose barb</p>

# TWO STAGE PRESSURE REDUCING REGULATORS

SERIES	FEATURES	MAX INLET	FLOW	INLET	OUTLET
<b>4300S SERIES,</b> <i>Two stage</i> 	<ul style="list-style-type: none"> <li>• Elgiloy® diaphragm reduces gas contamination and diffusion</li> <li>• Precise, stable delivery, even as the supply pressure decreases,</li> <li>• Low internal volume promotes quick gas flow stabilization and purging</li> <li>• Integral inlet filter</li> <li>• Light-weight, compact design</li> <li>• Optional preset outlet pressure (tamper resistant acorn nut)</li> </ul>	3000 psig (206.84 bar)  <i>dependent upon configuration</i>	Cv: 0.04	1/4" FNPT (Standard)  5/8-18 UNF (C10)  <b>ADAPTERS:</b> CGA adapters	1/8" FNPT (Standard)  <b>ADAPTERS:</b> 1/8" hose barb 3/16" hose barb 1/4" hose barb
<b>4300N SERIES,</b> <i>Two stage</i> 	<ul style="list-style-type: none"> <li>• Neoprene diaphragm</li> <li>• Precise, stable delivery, even as the supply pressure decreases,</li> <li>• Low internal volume promotes quick gas flow stabilization and purging</li> <li>• Integral inlet filter</li> <li>• Light-weight, compact design</li> <li>• Optional preset outlet pressure (tamper resistant acorn nut)</li> </ul>	3000 psig (206.84 bar)  <i>dependent upon configuration</i>	Cv: 0.04	1/4" FNPT (Standard)  5/8-18 UNF (C10)  <b>ADAPTERS:</b> CGA adapters	1/8" FNPT (Standard)  <b>ADAPTERS:</b> 1/8" hose barb 3/16" hose barb 1/4" hose barb
<b>4700 SERIES,</b> <i>Two stage, Fixed flow</i> 	<ul style="list-style-type: none"> <li>• Precise delivery pressure and flow, even as the supply pressure decreases</li> <li>• 40 micron sintered 316 stainless steel integral inlet filter</li> <li>• Optional integrated shut off valve</li> <li>• Optional yoke style design</li> </ul>	3000 psig (206.84 bar)  <i>dependent upon configuration</i>	Factory adjustable preset (fixed) flow settings	5/8-18 UNF (C10)  1/4" FNPT  1/8" FNPT	3/16" hose barb 1/4" hose barb 1/8" MNPT 1/4" FNPT



# STABLE SET PRESSURE REGULATORS

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## A NEW SOLUTION TO SUPPLY PRESSURE EFFECT

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Traditional solutions to reduce supply pressure effect require the use of bulky, expensive two stage regulators, or two single stage regulators in series. Premier Industries patent pending Stable Set Pressure regulators reduce supply pressure effect without the added weight or expense; near two stage performance in a single stage! These new, compact, low-cost Stable Set Pressure regulators are offered in a variety of materials, pressure ranges, porting & mounting configurations, and sizes.

### FEATURES:

1

SIGNIFICANTLY REDUCE SUPPLY PRESSURE EFFECT.

2

COST LESS THAN TWO STAGE REGULATORS.

3

COMPACT DESIGNS WHICH TAKE UP LESS SPACE THAN TRADITIONAL TWO STAGE REGULATORS.

4

REDUCE THE NEED FOR CONSTANT READJUSTMENTS.

5

FEATURE INCREASED FLOW CAPACITY RELATIVE TO A COMPARABLE TWO STAGE REGULATOR.

6

STABLE PRE-SET FLOW AS SUPPLY PRESSURE DROPS.

# STABLE SET PRESSURE REGULATORS

SERIES	FEATURES	MAX INLET	FLOW	INLET	OUTLET
<b>2310N SERIES</b> 	<ul style="list-style-type: none"> <li>Precise delivery pressure and flow, even as the supply pressure decreases</li> <li>Neoprene diaphragm, allows for low droop in dynamic operation</li> <li>Adjusting knob with locking-nut</li> <li>Compact &amp; light-weight</li> </ul>	3000 psig (206.84 bar)	Cv 0.025	1/8-27 FNPT	1/8-27 FNPT
<b>2310S SERIES</b> 	<ul style="list-style-type: none"> <li>Elastomer free design is available</li> <li>Reduced contamination and outgassing with Elgiloy® diaphragm, stainless body, &amp; stainless wetted parts</li> <li>Elgiloy® diaphragm is conducive to high cycle applications and wide temperature swings</li> </ul>	3000 psig (206.84 bar)	Cv 0.02	1/8-27 FNPT	1/8-27 FNPT
<b>2510 SERIES</b> 	<ul style="list-style-type: none"> <li>Precise delivery pressure and flow, even as the supply pressure decreases</li> <li>Optional integral outlet pressure relief valve</li> <li>Choice of neoprene or stainless steel diaphragm</li> <li>Numerous material and porting options</li> </ul>	3500 psig (241.3 bar)	Cv: 0.2	1/8 FNPT 1/4 FNPT	1/8 FNPT 1/4 FNPT
<b>2610 SERIES</b> 	<ul style="list-style-type: none"> <li>Precise delivery pressure and flow, even as the supply pressure decreases</li> <li>Piston sensed</li> <li>Optional panel mounting nut</li> <li>Outlet pressures up to 2500 psig (172.37 bar)</li> </ul>	3500 psig (241.3 bar)	Cv: 0.2	1/4 FNPT 3/8 FNPT	1/4 FNPT 3/8 FNPT

# PREMIER INDUSTRIES

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