

EQUILIBAR[®]
PRECISION PRESSURE CONTROL



Series 3000

High Pressure Reducing Regulator

General Specifications

DESCRIPTION

The high pressure 3000 Series pressure reducing regulators are single stage, piston sensed, variable delivery, pressure reducing regulators, designed for inlet and outlet pressures up to 10,000 PSIG (689.5 bar) and Cv 0.06.

3000 Series regulators are used to regulate a broad range of non-corrosive and corrosive media (based on materials of construction). They are designed for increased serviceability and reliable operation with the integral 15 micron stainless steel valve cartridge filter.

The Series 3000 is a self-relieving regulator that should be used only with compressed gasses (not liquids). The Series 3000 is most often used to provide the pilot pressure signal to an Equilbar back pressure regulator, but can be used in any application where relatively small volumes of compressed gas pressure must be controlled.

FEATURES

- Size (2.12" diameter x 7" high)
- 15 micron sintered 316 stainless steel inlet filter Cv 0.06
- Machined bar stock body, bonnet and piston eliminates porosity found in castings
- Adjustable bonnet vent valve
- Economical pricing

APPLICATIONS

- Pilot operating Equilbar Back Pressure Regulators
- Research labs
- Manufacturing process
- Petrochemical plants
- Aircraft support system

SPECIFICATIONS

MAXIMUM INLET PRESSURE (BRASS)	
6000 PSIG	413.7 bar(g)
MAXIMUM INLET PRESSURE (SS)	
10000 PSIG	689.5 bar(g)
CONTROL PRESSURE RANGES	
5-250 PSIG	0.35-17.2 bar(g)
5-500 PSIG	0.35-34.5 bar(g)
5-1000 PSIG	0.35-68.9 bar(g)
10-1500 PSIG	0.69-103.4 bar(g)
15-2500 PSIG	1.0-172.4 bar(g)
25-4000 PSIG	1.7-275.8 bar(g)
50-6000 PSIG	3.4-413.7 bar(g)
100-10000 PSIG	6.9-689.5 bar(g)
FLOW (CV)	
0.06	

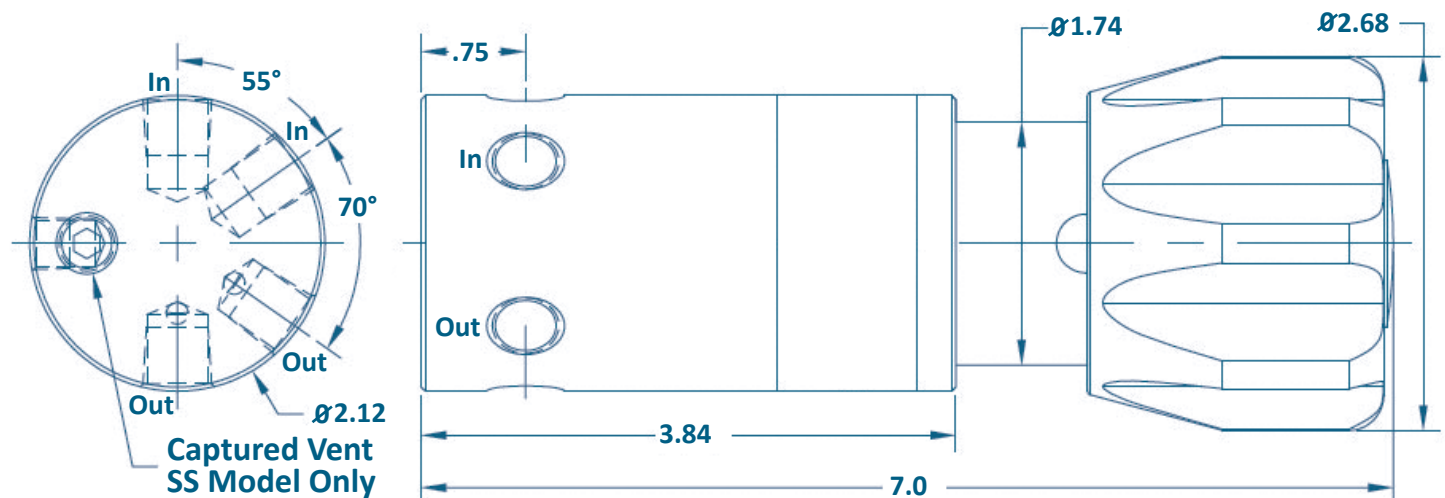
MATERIALS OF CONSTRUCTION

	BRASS MODEL	STAINLESS STEEL MODEL
Body (Wetted)	SAE 360 Brass	316 Stainless Steel
Bonnet (Non-Wetted)	SAE 360 Brass	303 Stainless Steel
Piston (Wetted)	316 Stainless Steel	316 Stainless Steel
Seals (Wetted)	Buna-N	Viton®
Backup Rings (Wetted)	PTFE	PTFE
Valve Seat (Wetted)	Vespel®	Vespel®
Other Parts (Wetted)	316 Stainless Steel	316 Stainless Steel

PORTING

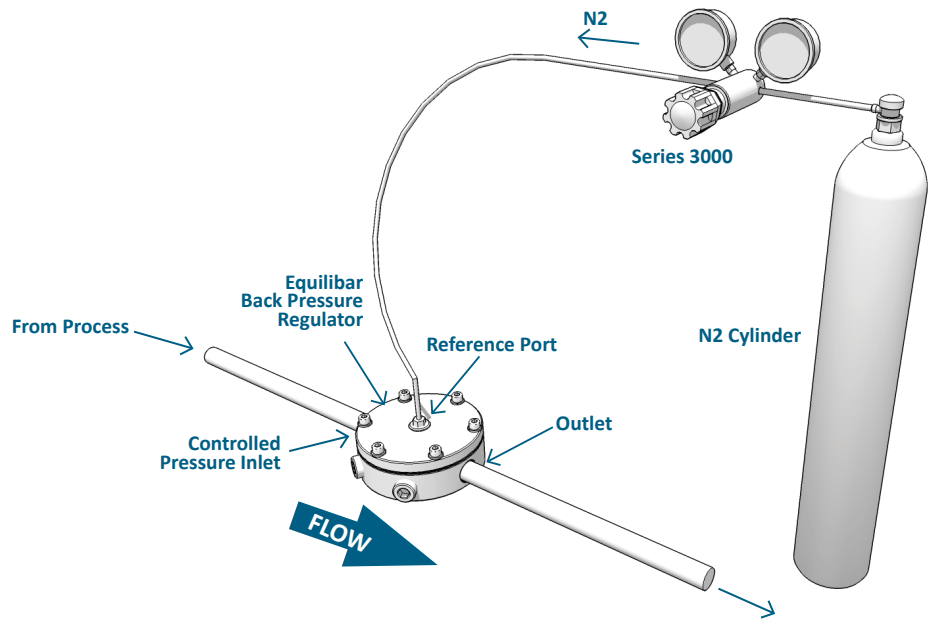
INLET PORTING: 1/4" FNPT

OUTLET PORTING: 1/4" FNPT



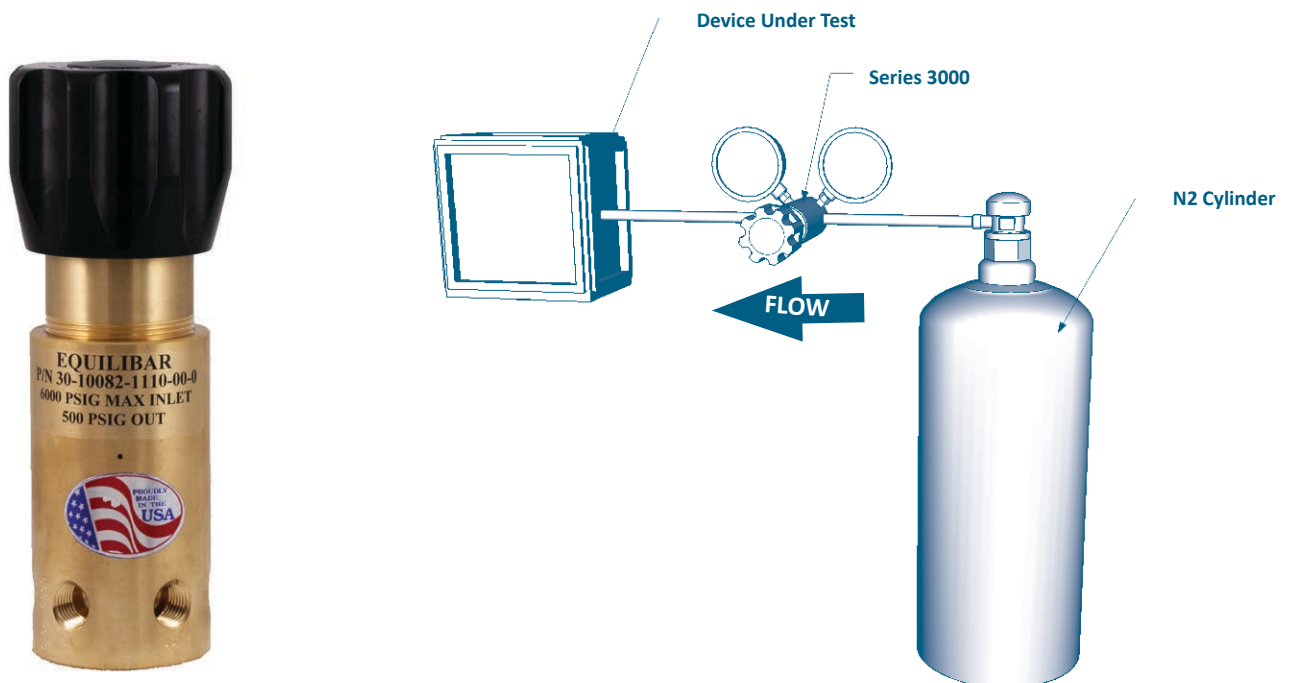
Application Highlight

The Series 3000 Pressure Reducing Regulator is often used to pilot operate an Equilibar® Back Pressure Regulator (BPR). This is a static pressure and is not under constant flow. Because the Series 3000 is isolated from the process fluid by the diaphragm in the Equilibar BPR, it is not necessary for the wetted parts of the Series 3000 to be compatible with process fluids. In most applications it will only see air or inert gases.



PRECISION GAS DELIVERY

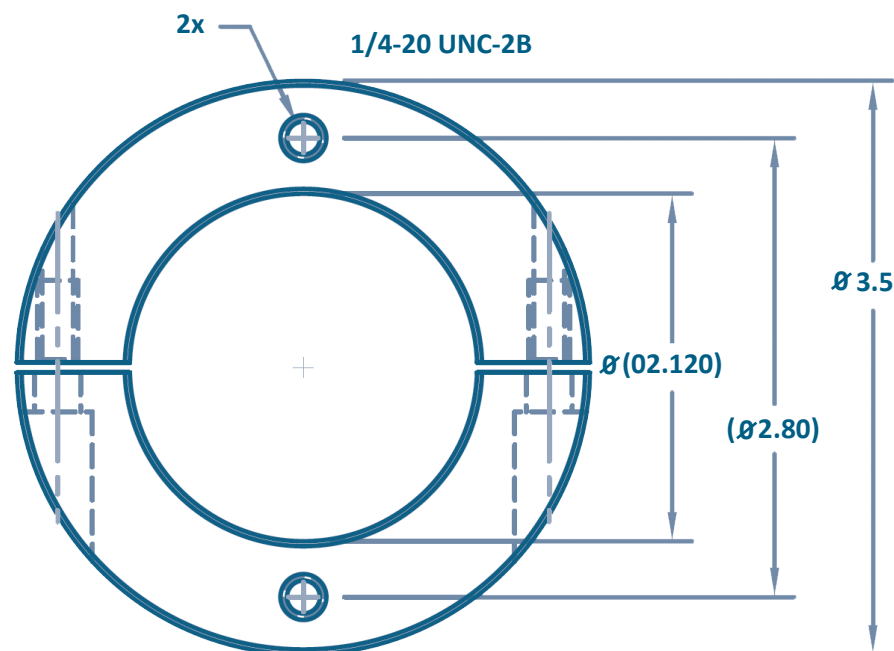
The Series 3000 is useful in nearly any application where a high pressure gas must be regulated to an accurate lower pressure. Here it is shown controlling pressure from a nitrogen cylinder, however it may be used with many other gases. The 360 Brass model is good for most inert gases, while the SS316 model with Viton seals is better for potentially corrosive gases. The captured vent on the SS316 model allows you to safely pipe away potentially hazardous gases.



Ordering Information

PART NUMBER	MATERIAL	CAPTURED VENT	O-RING MATERIAL	MAX INLET PRESSURE PSIG / BAR(G)	PRESSURE RANGE PSIG / BAR(G)
30-10082-1100-00-0	360 Brass Body & Bonnet	N	Buna-N	6000 / 414	5 - 250 / 0.35-17.2
30-10082-1110-00-0	360 Brass Body & Bonnet	N	Buna-N	6000 / 414	5 - 500 / 0.35-34.5
30-10082-1120-00-0	360 Brass Body & Bonnet	N	Buna-N	6000 / 414	5 - 1000 / 0.35-68.9
30-10082-1130-00-0	360 Brass Body & Bonnet	N	Buna-N	6000 / 414	10 - 1500 / 0.69-103.4
30-10082-1140-00-0	360 Brass Body & Bonnet	N	Buna-N	6000 / 414	15 - 2500 / 1.0-172.4
30-10082-1150-00-0	360 Brass Body & Bonnet	N	Buna-N	6000 / 414	25 - 4000 / 1.7-275.8
30-10082-1160-00-0	360 Brass Body & Bonnet	N	Buna-N	6000 / 414	50 - 6000 / 3.4-413.7
31-10082-2100-02-0	SS316 Body, SS303 Bonnet	Y	Viton-A	10,000 / 689	5 - 250 / 0.35-17.2
31-10082-2110-02-0	SS316 Body, SS303 Bonnet	Y	Viton-A	10,000 / 689	5 - 500 / 0.35-34.5
31-10082-2120-02-0	SS316 Body, SS303 Bonnet	Y	Viton-A	10,000 / 689	5 - 1000 / 0.35-68.9
31-10082-2130-02-0	SS316 Body, SS303 Bonnet	Y	Viton-A	10,000 / 689	10 - 1500 / 0.69-103.4
31-10082-2140-02-0	SS316 Body, SS303 Bonnet	Y	Viton-A	10,000 / 689	15 - 2500 / 1.0-172.4
31-10082-2150-02-0	SS316 Body, SS303 Bonnet	Y	Viton-A	10,000 / 689	25 - 4000 / 1.7-275.8
31-10082-2160-02-0	SS316 Body, SS303 Bonnet	Y	Viton-A	10,000 / 689	50 - 6000 / 3.4-413.7
31-10082-2170-02-0	SS316 Body, SS303 Bonnet	Y	Viton-A	10,000 / 689	100 - 10,000 / 6.9 - 689.5

Mounting Bracket: 30-10059



About Equilibar

Equilibar provides innovative and robust pressure and flow control technology for researchers and engineers worldwide. We are proud to design, manufacture, and test our patented back pressure regulators in our factory overlooking the Blue Ridge Mountains near Asheville, NC, and we are equally proud to work with clients around the world each and every day.

APPLICATION ENGINEERING— WHAT SETS US APART

Unlike mass-market regulator distributors, we focus on working with you, the scientist or engineer with a complex pressure control scenario.

Our application engineers work collaboratively with clients to identify the optimal model, trim, and diaphragm for each application's unique challenges. No matter where you are on the globe, you can stay in close contact with your engineer by email, telephone, videoconferencing, or fax.

After installation, your application engineer will support you with start-up information and fine-tuning as needed.



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Each application is reviewed by our engineering team to ensure quality performance of our products.



Our engineers offer custom designed solutions for the most difficult pressure control challenges. Feel free to contact us to discuss your situation.



Made in the
USA

Equilibar's quality system is
ISO 9001:2015 certified.