EQUILIBAR®
PRECISION PRESSURE CONTROL

RSV

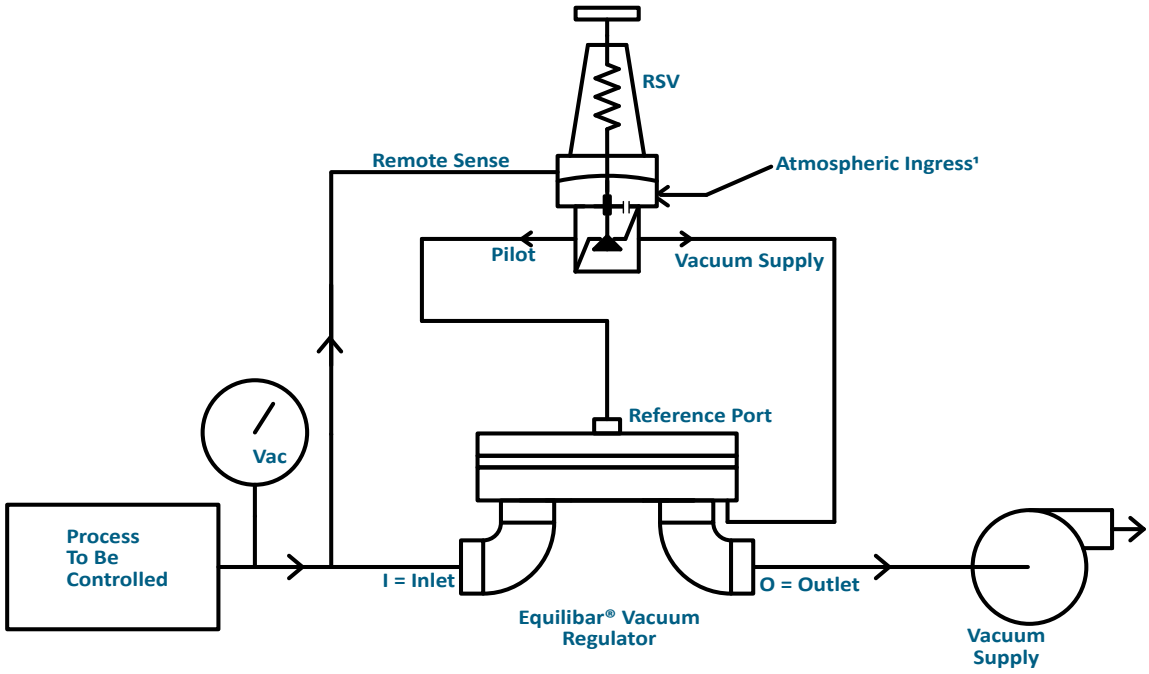
Remote Sense Vacuum Pilot Regulator

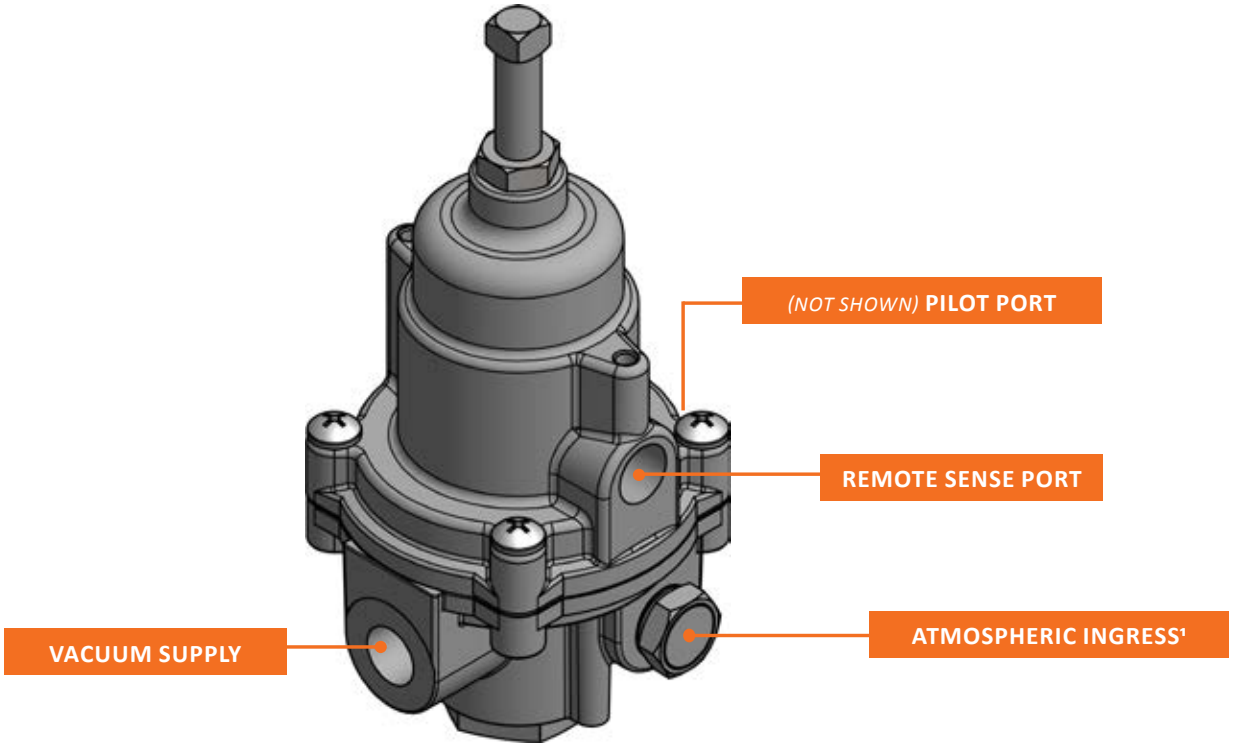
Application of the RSV

The RSV is a highly sensitive mechanical vacuum pilot regulator with remote sense capability that provides closed-loop control of an Equilibar® vacuum regulator (EVR). It actively adjusts the pilot reference vacuum level on the EVR to maintain an extremely steady vacuum setpoint despite large variations in flow.

The RSV works by using the remote sense input to carefully adjust the vacuum force that is applied to the pilot reference port of the Equilibar vacuum regulator.

During higher flow conditions, the RSV increases the reference vacuum level to open the vacuum regulator more fully. The opposite occurs during low flow conditions. This active pilot adjustment coupled with the instantaneous response of the EVR keeps the pressure stable from the lowest flow rates to the maximum capacity of the EVR. The RSV can be integrated with any Equilibar vacuum regulator to provide improved vacuum control at a wider flow range.





¹Sintered vent (atmospheric ingress) serves dual purposes as atmospheric sense and atmospheric bleed into pilot through orifice

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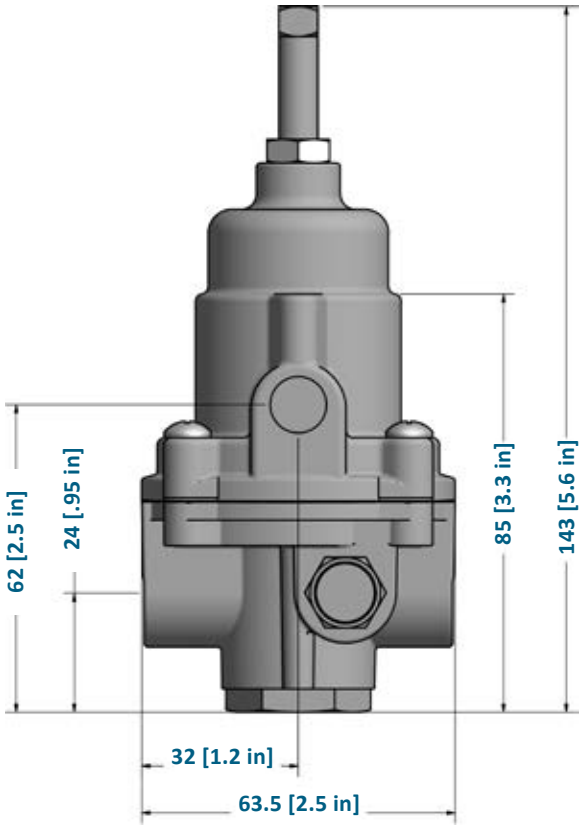
Performance Specifications

DIMENSIONS OF THE RSV

MM [IN]*



dimensions are for reference only

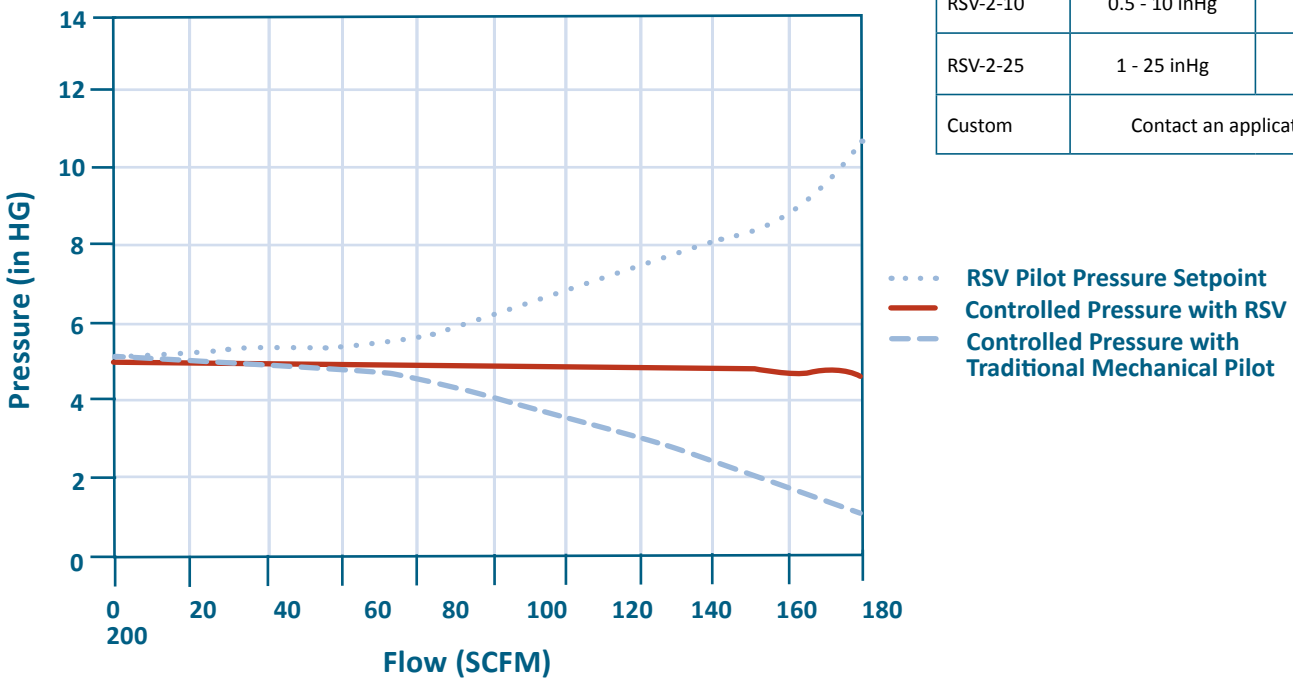
PORT SIZES	
Vacuum Supply	1/4" NPT
Remote Sense	1/4" NPT
Pilot Output	1/4" NPT
Atmospheric Ingress	¼" (through sintered vent)
SPECIFICATIONS	
Vacuum Supply Pressure Range	1 - 30 inHg / 25 - 760 mmHg
Preferred Supply Differential	1 inHG (Supply Control)
Atm Bleed Orifice	Through 0.015" Orifice (2.5 SCFH or 70 L/h at higher setpoints)
MATERIALS OF CONSTRUCTION[1]	
Body	Aluminum
Trim	PTFE, Stainless, Buna Nitrile
Springs	Steel

[1] The materials of construction are not corrosion resistant. These regulators are for use with inert, non-corrosive gases.

ORDERING INFORMATION

MODEL	VACUUM CONTROL PRESSURE RANGE	
RSV-2-10	0.5 - 10 inHg	12 - 254 mmHg
RSV-2-25	1 - 25 inHg	25 - 635 mmHg
Custom	Contact an application engineer	

RSV COMPARED TO TRADITIONAL PILOT



About Equilibar

Equilibar provides innovative and robust pressure control technology for researchers and engineers worldwide. We are proud to design, manufacture and test our patented back pressure regulators in a facility near Asheville, NC.

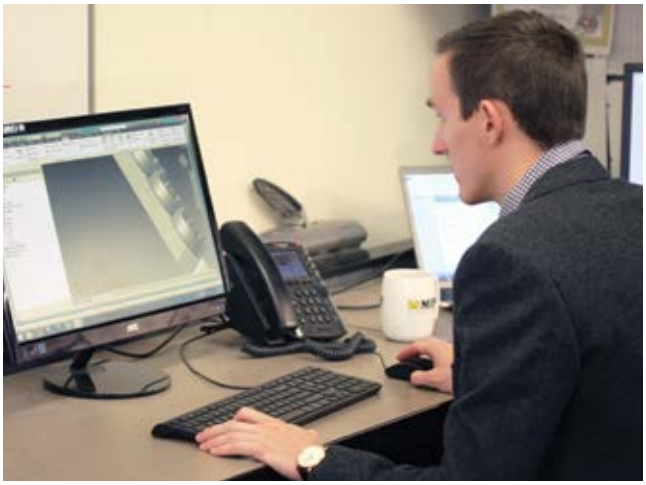
APPLICATION ENGINEERING– WHAT SETS US APART

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.

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.

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Equilibar, LLC
320 Rutledge Rd.
Fletcher, North Carolina 28732
United States
Tel: +1-828-650-6590
Fax: +1-801-504-4439
Monday - Friday
8:00 AM - 5:00 PM EST
12:00 - 21:00 GMT
inquiry@equilibar.com

Made in the USA

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