

Compact, General-Purpose, Spring-Loaded Pressure-Reducing Regulators—RS(H)2 Series

Features

- Bottom mounting
- Sealed spring housing
- Low-friction piston for better control
- Cartridge poppet assembly with 25 µm filter for ease of service
- Self-venting
- Threaded vent below panel for safety

Options

- No filter—for liquid applications
- NACE MR0175/ISO 15156-compliant models (nonventing and no-filter models only)
- Nonventing
- Special cleaning to ASTM G93 Level C
- Panel mounting kit sold separately—no disassembly required



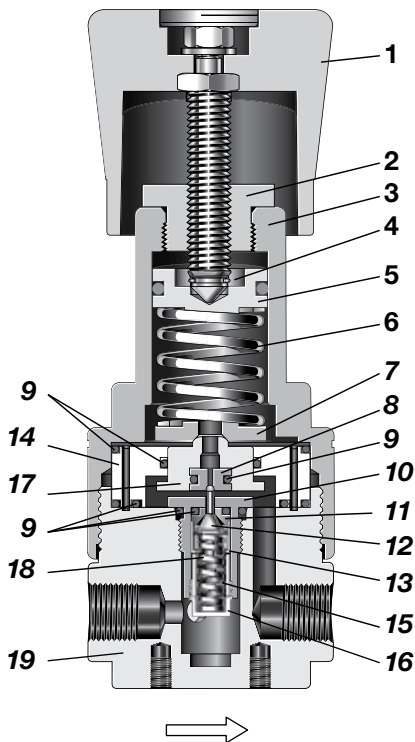
Technical Data

Series	Maximum Inlet Pressure psig (bar)	Maximum Outlet Control Pressure psig (bar)	Sensing Type	Temperature Range °F (°C)	Flow Coefficient (C _v)	Seat Diameter in. (mm)	Inlet and Outlet Connections	Gauge / Vent Connections	Weight lb (kg)
RS2	5 800 (400)	5 075 (350)	Piston	-4 to 176 (-20 to 80) See Pressure-Temperature Ratings , page 8.	0.05	0.087 (2.2)	1/4 in. NPT	Gauge: 1/4 in. NPT Vent: 1/8 in. NPT	3.3 (1.5)
RSH2	10 150 (700)	10 150 (700)							

See page 11 for flow data.

Materials of Construction

RS2 Series Regulator with Cartridge Poppet Design



Component	Material / Specification
1 Knob assembly with adjusting screw, nuts, washer	Red ABS with A2-70
2 Spring housing cover	431 SS / A276
3 Spring housing	316L SS / A479 or EN10088
4 C-ring	A2
5 Spring guide	316L SS / A479 or EN10088
6 Set spring	50CRV4
7 Bottom spring guide	316L SS / A479 or EN10088
8 Relief seat	PEEK or PCTFE
9 O-rings	EPDM, FKM, FFKM, or nitrile
10 Poppet housing	316L SS / A479 or EN10088
11 Seat	PEEK or PCTFE
12 Poppet	
13 Seat retainer	316L SS / A479 or EN10088
14 Piston plate	
15 Filter	316L SS
16 Plug	316L SS / A479 or EN10088
17 Piston	316L SS / A479 or EN10088
18 Poppet spring	302 SS / A313
19 Body	316L SS / A479 or EN10088

Wetted lubricants: Silicone-based and synthetic hydrocarbon-based

Wetted components listed in *italics*.
Gauge plugs (not shown): 431 SS / A276.

Flow Data

The graphs illustrate the change or “droop” in outlet pressures as the flow rate increases. For more flow curve information, contact your authorized Swagelok representative.

RS2 Series

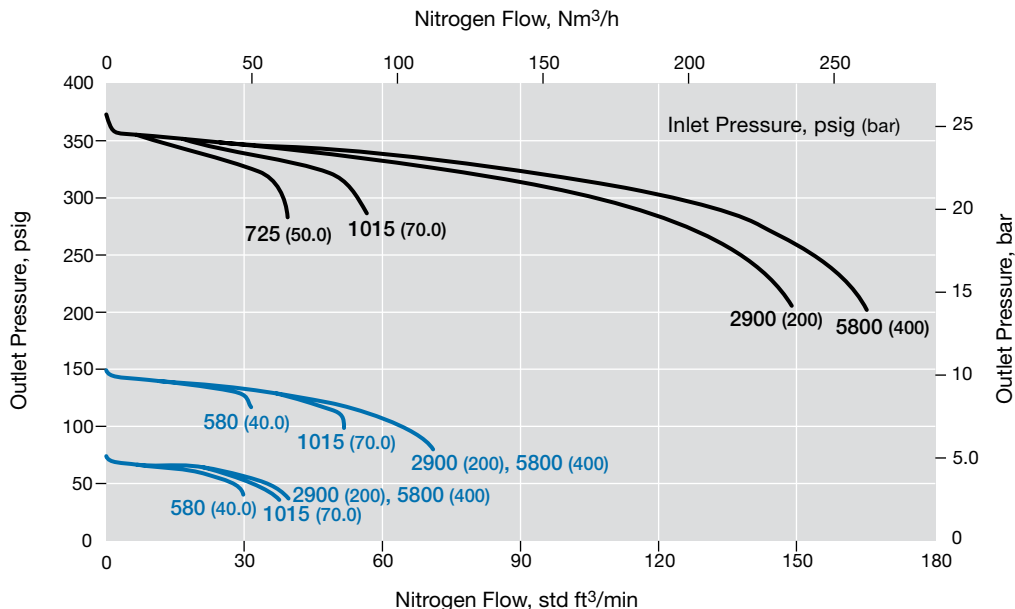
Flow Coefficient: 0.05

Maximum Inlet Pressure: RS2—5800 psig (400 bar)

Outlet Pressure Control Range: 0 to 362 psig (0 to 25.0 bar)

Pressure Control Range

- 0 to 145 psig (0 to 10.0 bar)
- 0 to 362 psig (0 to 25.0 bar)



RS2 Series

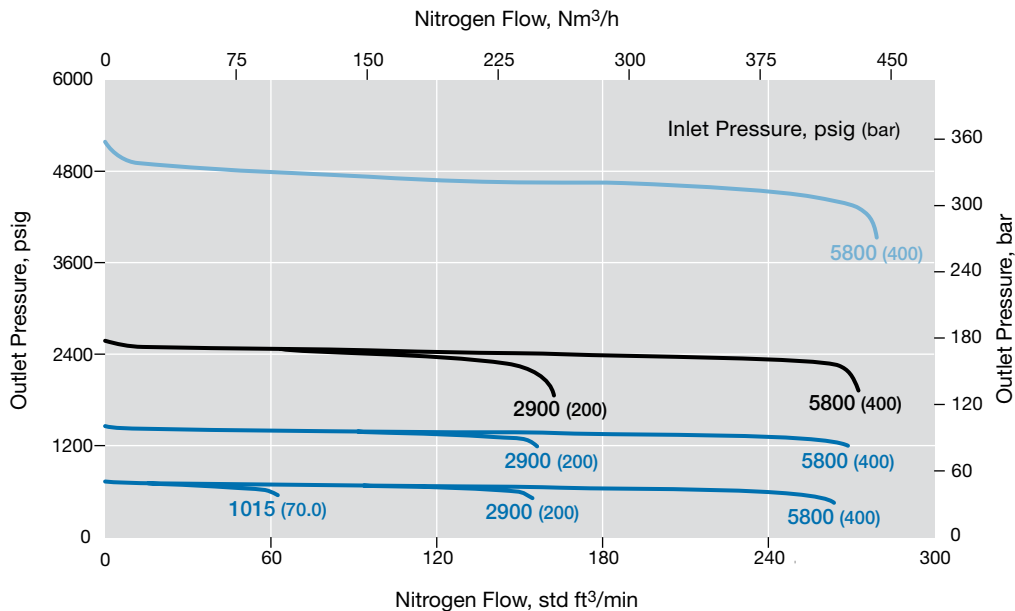
Flow Coefficient: 0.05

Maximum Inlet Pressure: RS2—5800 psig (400 bar)

Outlet Pressure Control Range: 0 to 5075 psig (0 to 350 bar)

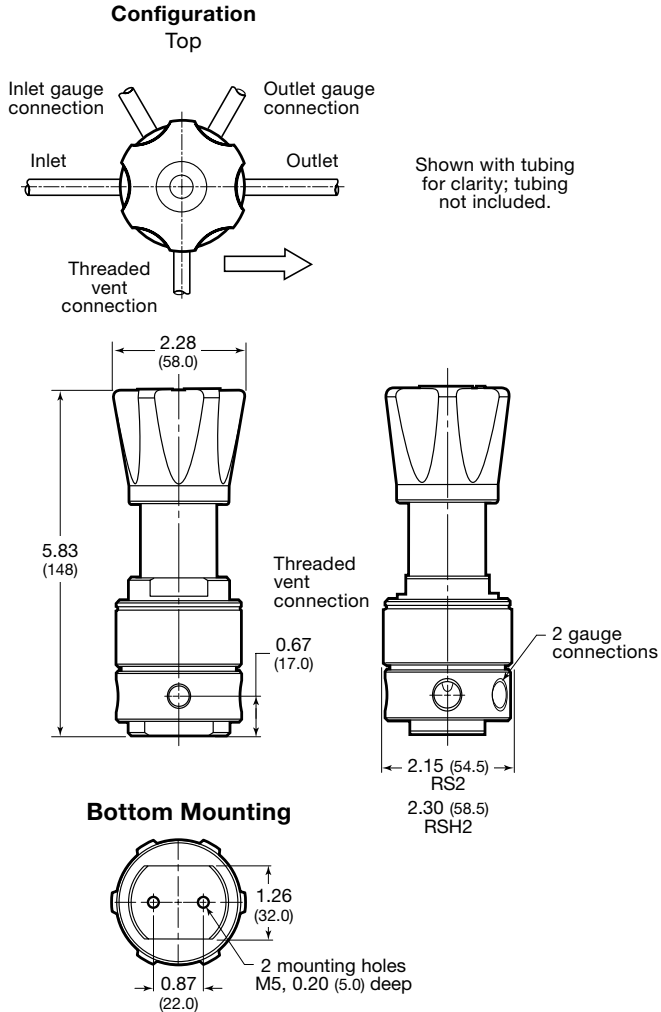
Pressure Control Range

- 0 to 1450 psig (0 to 100 bar)
- 0 to 2537 psig (0 to 175 bar)
- 0 to 5075 psig (0 to 350 bar)

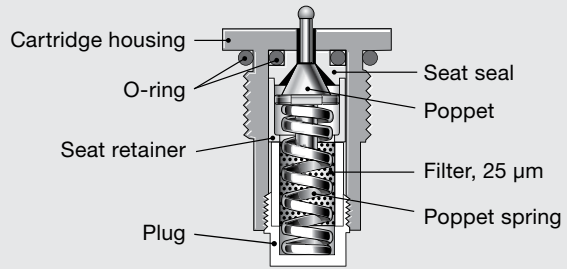


Dimensions

Dimensions, in inches (millimeters), are for reference only and are subject to change.



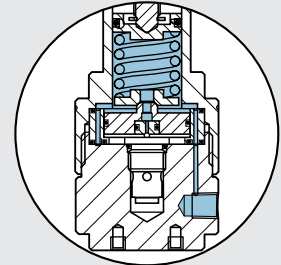
Cartridge Poppet Assembly Detail



Venting

- Self-venting is standard.
- Threaded vent connection is below panel for safety
- A nonventing option is available.

WARNING: Self-venting regulators can release system fluid to atmosphere. Position the self-vent hole away from operating personnel.



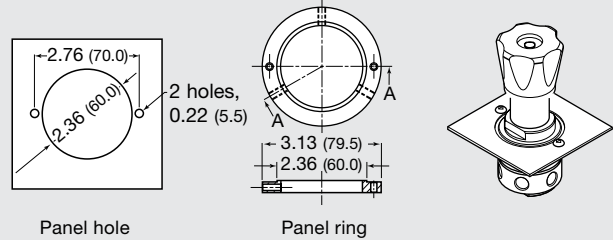
Panel Mounting Kit

No disassembly required when using panel mount kit.

Panel mounting kit ordering numbers:

RS2 series: **RS2-P-02**

RSH2 series: **RSH2-P-02**



Ordering Information

Build an RS2 or RSH2 series regulator ordering number by combining the designators in the sequence shown below.

1 2 3 4 5 6 7 8
RS N2 - 02 - 1 - V V K - LNV

1 Series

RS = 5800 psig (400 bar) maximum inlet pressure
RSH = 10 150 psig (700 bar) maximum inlet pressure

2 Inlet / Outlet

N2 = 1/4 in. female NPT

3 Body Material

02 = 316L SS

4 Pressure Control Range

RS and RSH series

1 = 0 to 145 psig (0 to 10.0 bar)
2 = 0 to 362 psig (0 to 25.0 bar)
3 = 0 to 1450 psig (0 to 100 bar)
4 = 0 to 2537 psig (0 to 175 bar)
5 = 0 to 5075 psig (0 to 350 bar)

RSH series only

6 = 0 to 10 150 psig (0 to 700 bar)

5 Seal Material

V = Fluorocarbon FKM
N = Nitrile
E = EPDM
F = FFKM

6 Piston Seal Material

V = Fluorocarbon FKM
N = Nitrile
E = EPDM
F = FFKM

7 Seat Seal Material

K = PCTFE (RS only)
P = PEEK (RS and RSH)

8 Options

L = No filter
N = NACE MR0175/ISO 15156
NV = Nonventing
G93 = ASTM G93 Level C-cleaned