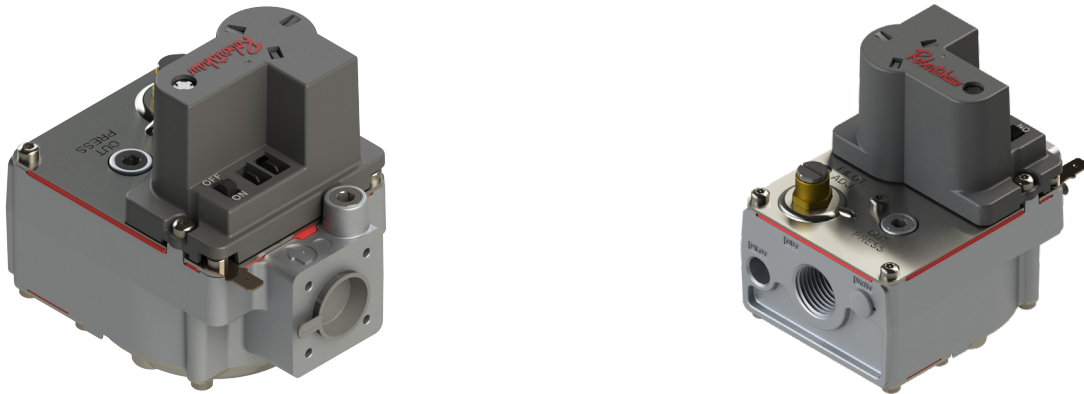


8500 Series

Gas Valves



Description

The Robertshaw® 8500 Series Gas Valves are designed for light commercial and residential applications with direct ignition (DER & DERN) or intermittent pilot ignition (IPER) systems such as central heating units, space heaters, wall heaters, boilers, mobile home furnaces, and commercial cooking appliances. Setting this valve apart from the competition is its excellent regulation control, compact size and ON/OFF electrical switch.

Features and Benefits

- Ground wire connection
- Pressure tap for checking inlet and outlet gas pressure
- Complies with CSA and (UL optional) requirements and carries the seal for commercial cooking
- Instantaneous, and slow opening
- Multi-poise mounting, (any angle between 0° and 90° from upright. Note the Valve cannot be mounted upside down.)
- Quick connect and screw terminals for convenience wiring



Customer Service
+1 800 304 6563
HVACCustomerService
@robertshaw.com

Technical Service
+1 800 445 8299
TechnicalService
@robertshaw.com

www.robertshaw.com
©2025 Robertshaw
07/25 150-2912 Rev B

Specifications

Electrical Rating	.28 Amps
Operating Voltage	24VAC 60Hz
Temperature Operating Range	-40°F to 175°F (-40°C to 80°C)
Maximum Pressure Rating	1/2 PSI
Inlet and Outlet Pressure Taps	1/8" NPT
Mounting	Multipoise
Agency Approvals	CSA
Outlet sizes	Straight out: 3/8", 1/2", 3/4" NPT female threads
Inlet Sizes	Straight in: 3/8", 1/2", 3/4" NPT female threads
Power Consumption	5 Watts
Type	N.E.C. class 2

			1" Pressure Drop Capacity BTU / HR		Ranges of Regulation BTU / HR	
Model No.	Size (Inlet x Outlet)	Outlet Side	Natural Gas	LP Gas	Natural Gas	LP Gas
8500DER	1/2" x 1/2"	Straight	150,000	230,000	15,000 – 250,000	40,000 - 320,000
	3/4" x 3/4"	Straight	150,000	230,000	15,000 – 250,000	40,000 - 320,000
8500DERN	1/2" x 1/2"	Straight	-	-	15,000 – 275,000	40,000 - 320,000
	3/4" x 3/4"	Straight	-	-	15,000 – 275,000	40,000 - 320,000
8500IPER	1/2" x 1/2"	Straight	150,000	230,000	15,000 – 275,000	40,000 - 320,000
	3/4" x 3/4"	Straight	150,000	230,000	15,000 – 275,000	40,000 - 320,000
8600DER	1/2" x 1/2"	Straight	170,000	275,500	40,000 - 240,000	40,000 - 320,000
	1/2" x 3/4"	Straight	260,000	421,000	50,000 - 300,000	40,000 - 320,000
	3/4" X 3/4"	Straight	300,000	486,000	50,000 - 400,000	40,000 - 320,000

Regulator Settings

Model No.	Opening Characteristic	Type of Gas	Standard Factory Regulation Settings (WC)	Ranges of Optional Factory Regulator Settings (WC)
8500DER Direct Spark Ignition	Standard	Natural Gas	3.5	3.0 to 5.5
		LP Gas	10	8.0 to 12.0
	Slow	Natural Gas	3.5	3.0 to 5.5
		LP Gas	10	8.0 to 12.0
8500DERN Negative Regu- lation	Standard	Natural Gas	-0.2	+0.5 to -1.0
		LP Gas	-0.2	+0.5 to -1.0
	Slow	Natural Gas	-0.2	+0.5 to -1.0
		LP Gas	-0.2	+0.5 to -1.0
8500IPER Intermittent Pilot	Standard	Natural Gas	3.5	3.0 to 5.5
		LP Gas	10	8.0 to 12.0
	Slow	Natural Gas	3.5	3.0 to 5.5
		LP Gas	10	8.0 to 12.0
8600DERHC High Capacity	Standard	Natural Gas	3.5	3.0 to 5.5
		LP Gas	10	8.0 to 12.0
	Slow	Natural Gas	3.5	3.0 to 5.5
		LP Gas	10	8.0 to 12.0

Product Dimensions

Their compact size, with a swing radius of 2.9" will fit most OEM and replacement applications.

