

SmartValve™ Control Systems

SV9520 SmartValve™ System



The SV9520 SmartValve™ System Controls combine gas flow control and electronic direct main burner ignition sequencing functions into a single unit. The ignition source is 120V hot surface igniter lighting the main burner flame. Provides all gas ignition safety functions by controlling gas flow, ignition source, and a 120 Vac combustion air blower. The control also monitors the appliance airflow proving switch circuit and limit string to assure proper appliance operation. The SmartValve™ System Controls provide prepurge, postpurge and timed trial for ignition with multiple ignition trials and auto reset from lockout. Diagnostic LED indicates system status.

- The control communicates directly with the ST9160 Electronic Fan Timer (EFT) in typical forced warm air furnace applications.
- It will also interface with the 208907 Terminal Board, providing compatibility with power-stealing thermostats. Or, it directly interfaces with the appropriate power supplies and a system thermostat for additional appliance applications.
- When controlled directly by a thermostat, the control does not provide a postpurge function, as power to the control is removed when the thermostat call for heat ends.
- This system is suitable for a wide range of fan-assisted combustion, gas-fired appliances including furnaces, rooftop furnaces, boilers, unit heaters, infrared heaters, water heaters and commercial cooking appliances.

Dimensions, Approximate: 3.2 in. wide x 4.9 in. high x 4.1 in. long (81 mm wide x 124 mm high x 104 mm long)

Body Pattern: Straight-through

Maximum Capacity at 1 in. P.D. 150 ft³/hr (4.2 m³/hr)

Maximum Capacity: 200 ft³/hr (5.7 m³/hr)

Minimum Capacity: 20 ft³/hr (0.6 m³/hr)

Electrical Ratings: 24 Vac

Frequency: 60 Hz; 50 Hz

Control Voltage (Thermostat or other call for heat): 24 Vac, 60 Hz.

Flame Failure Response Time (sec): 2 sec @ 5 µA

Flame Sense: Two Rod

Ignition Sequence: 7/12 sec

Ignition System Type: Direct Hot Surface Ignition

Ignition Trial Time (sec): 7 sec

Ignition Trials To Lockout: 4 trials

Pressure Ratings: 1/2 psi (3.5 kPa)

Pressure Tapping: 1/8 in. - NPT

Ambient Temperature Range: 0 F to 175 F (-18 C to +79 C)

Mounting: 0 to 90 degrees in any direction from the upright position of the gas control knob, including vertically.

Approvals:

Canadian Standards Association: CSA International: 158158-10592145

	Product Number	Type of Gas	Opening Characteristics (standard, step)	Inlet/Outlet Size (in.)	Pressure Regulator Setting		PrePurge	Includes
					(psi)	(kPa)		
•	SV9520H8513	Natural	Fast-Slow Opening	1/2 in. NPT x 1/2 in. NPT	3.5 in. wc	0.87 kPa	15 seconds	LP Conversion Kit
•	SV9520M2536	Natural	Standard Opening	1/2 in. NPT x 1/2 in. NPT	3.5 in. wc	0.87 kPa	15 seconds	LP Conversion Kit

* TRADELINE models • SUPER TRADELINE models