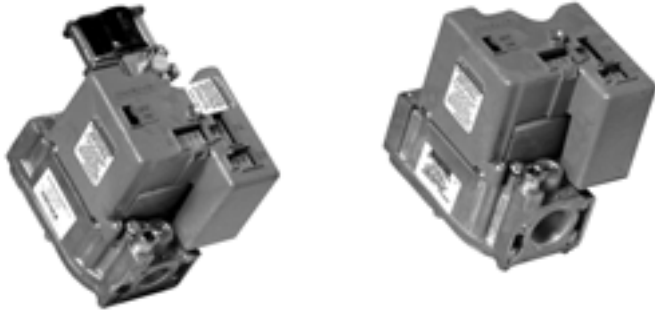


SmartValve System Controls

SV9541; SV9641 SmartValve® System



The SV9541 and SV9641 SmartValve® System Controls combine gas flow control and electronic intermittent pilot sequencing functions into a single unit. The Q3450 or Q3480 Pilot hardware supplies the low voltage igniter, flame sensor and pilot burner. These ignition system controls provide all gas ignition safety functions by controlling gas flow, ignition source, and a 120 Vac or 240 Vac combustion air blower. The controls also monitor the appliance airflow proving switch and limit string to assure proper appliance operation, and provide prepurge, postpurge, and timed trial for pilot ignition with 100 percent shutoff and continuous retry. A diagnostic LED indicates system status.

- These controls communicate directly with an electronic fan timer (ST9160 Electronic Fan Timer for single stage applications; ST9162 Electronic Fan Timer for two-stage applications) in typical forced warm air furnace applications.
- It can directly interface with the appropriate power supplies and a system thermostat for additional appliance applications.
- When controlled directly by a thermostat, these controls do not provide a postpurge function, because power to the control is removed when the thermostat call for heat ends.
- The Systems are 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

Type of Gas: Natural

Capacity:

1/2 x 1/2 inlet x outlet: 150 ft³/hr (4.2 m³/hr) 1 in. PD;
20 ft³/hr (0.6 m³/hr) minimum; 200 ft³/hr (5.7 m³/hr) maximum
3/4 x 3/4 inlet x outlet: 300 ft³/hr (8.5 m³/hr) 1 in. PD;
30 ft³/hr (0.8 m³/hr); 415 ft³/hr (11.8 m³/hr) maximum

Pilot Gas Outlet: Yes

Electrical Ratings: 24 Vac

Frequency: 60 Hz

Flame Failure Response Time (sec): 1.6 sec @ 3 μA

Flame Sense: Two Rod

Ignition Sequence: Intermittent Pilot

Ignition Source: Pilot

Ignition System Type: Intermittent Hot Surface Pilot Ignition

Ignition Trial Time: 90 sec

Ignition Trials To Lockout: continuous retry

Pressure Ratings: 1/2 psi (3.5 kPa)

Pressure Tapping: 1/8 in. - NPT

Ambient Temperature Range: -40 F to +175 F (-40 C to +79 C)

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

Approvals

CSA International: 112395

Product Number	Opening Characteristics (standard, step)	Inlet/Outlet Size (in.)	Pressure Regulator Setting		PrePurge	PostPurge	Includes
			(psi)	(kPa)			
U SV9541Q2561/U	Standard; Two-stage	1/2 in. x 1/2 in. NPT	1.7 in. wc low; 3.2 in. wc high	0.42 kPa low; 0.80 kPa high	15 seconds	—	LP Conversion Kit
U SV9641M4510/U	Standard	3/4 in. x 3/4 in. NPT.	3.5 in. wc	0.87 kPa	15 seconds	30 seconds	Two 3/4 in. x 1/2 in. reducer bushings; An LP conversion kit.

U Universal Service Parts