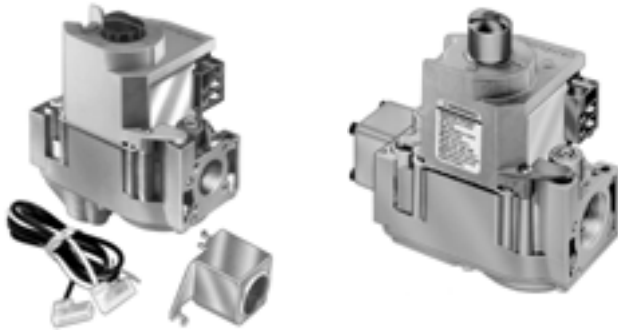


Combination Gas Controls

VR4305 Line Voltage; VR8305 Low Voltage Direct Ignition Dual Automatic Valve Combination Gas Control



Combination gas control for use with hot surface/direct spark systems in 24 Vac or 120 Vac, gas-fired appliances, with capacities from 30 to 415 cfh.

- Controls include manual valve, two automatic operators and pressure regulator.
- Compact size.
- Provides two automatic valves.
- Solenoid operated first automatic valve opens on thermostat call for heat; closes when call for heat ends.
- Diaphragm-operated second automatic valve opens under control of regulator; closes if gas or power supply is interrupted.
- Meets codes requiring dual safety shut-off.
- Natural to LP and LP to Natural conversion kits available for standard and slow opening gas valves.
- Adjustable servo regulator effectively maintains almost constant gas output pressure under wide fluctuations in gas supply pressure.
- ON/OFF lighting sequence.
- Use VR8305 models with S89C,E,F and S87 series 5 and later.
- All adjustments, wiring connections and pilot outlet are accessible from top of control.

Body Pattern: Straight-through

Capacity:

1/2 x 1/2 inlet x outlet: 240,000 BTU/hr 1 in. PD;
30,000 BTU/hr minimum; 340,000 BTU/hr maximum
1/2 x 3/4 inlet x outlet: 270,000 BTU/hr 1 in. PD;
30,000 BTU/hr minimum; 370,000 BTU/hr maximum
3/4 x 3/4 inlet x outlet: 300,000 BTU/hr 1 in. PD;
30,000 BTU/hr minimum; 415,000 BTU/hr maximum

Anticipator Setting: 0.13 A

Ignition Type: Direct Ignition

Pressure Ratings: 1/2 psi (3.5 kPa)

Pressure Tapping: 1/8 in. NPT with plug

Frequency: 60 Hz

Electrical Connections

24 Vac models: 1/4 in. male quick connects

120 Vac models: 21 in. leadwires

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

Approvals

Australian Gas Association: 4717

CSA International: 112395

Underwriters Laboratories, Inc: Component Recognized
MCC22.MH5323

Accessories:

390427A-3/4 inch x 1/2 inch reducer bushing for valves

390427B-1/2 inch x 3/8 inch reducer bushing for valves

390427E-Two 3/4 in. NPT x 1/2 in. NPT reducer bushings

392877-1/4 inch barbed vent fitting

393690-4-Flange Kit bag assembly, includes 3/4 in. straight flange, O-ring, and hex screws.

393690-13-Flange Kit bag assembly, includes 1/2 inch angle flange, O-ring, 9/64 inch hex screws and 9/64 inch hex wrench

393690-15-Flange Kit bag assembly, includes 3/4 inch angle flange, O-ring, 9/64 inch hex screws and 9/64 inch hex wrench

393691-Single Stage Natural Gas to LP Conversion kit, including regulator spring, screw and cap

394588-Single Stage LP to Natural Gas Conversion kit, including regulator spring, screw and cap

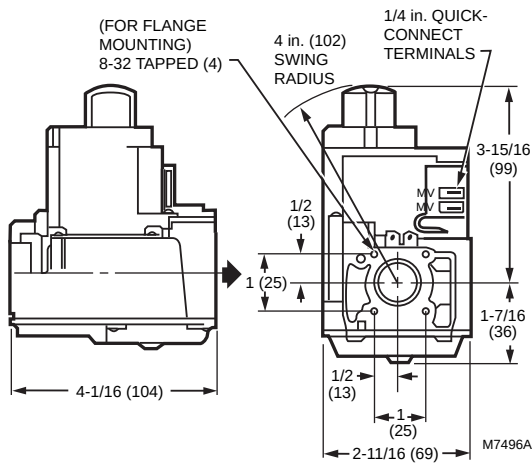
395253-1-Single Stage Natural Conversion kit (5 in. wc to 7 in. wc adjustable).

396021-2 Stage Natural Gas to LP Gas Conversion kit, includes regulator shaft

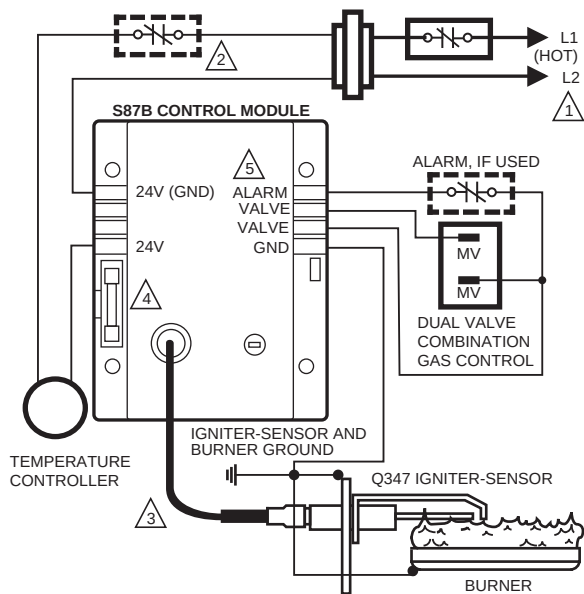
396025-2 Stage LP to Natural Gas Conversion kit, includes regulator shaft

Product Number	Electrical Ratings	Type	Type of Gas	Opening Characteristics (standard, step)	Inlet/Outlet Size (in.)	Pressure Regulator Setting		Ambient Temperature Range		Includes
						(psi)	(kPa)	(F)	(C)	
VR4305M4532/U	120 Vac	Single Stage	Natural	Standard	3/4 in. x 3/4 in.	3.5 in. wc	0.87 kPa	-40 F to +175 F	-40 C to +79 C	One 1/2 in. x 3/8 in. reducer bushing; Natural to LP Conversion Kit; Two 3/4 x 1/2 in. reducer bushings
VR8305M3506/U	24 Vac	Single Stage	Natural	Standard	1/2 in. x 3/4 in.	3.5 in. wc	0.87 kPa	-40 F to +175 F	-40 C to +79 C	One 3/4 in. straight flange; One 3/4 in. x 1/2 in. reducer bushing; Natural to LP Conversion Kit
VR8305P2224/U	24 Vac	Single Stage	LP	Step Opening	1/2 in. x 1/2 in.	Full Rate: 10.0 in. wc; Step Setting: 4.0 in. wc	Full Rate: 2.49 kPa; Step Setting: 1.0 kPa	-40 F to +175 F	-40 C to +79 C	—
VR8305P4279/U	24 Vac	Single Stage	Natural	Step Opening	3/4 in. x 3/4 in.	Full Rate: 3.5 in. wc; Step Setting: 0.9 in. wc	Full Rate: 0.87 kPa; Step Setting: 0.22 kPa	-40 F to +175 F	-40 C to +79 C	—
VR8305Q4500/U	24 Vac	Two Stage	Natural	Standard	3/4 in. x 3/4 in.	1.7 in. wc low; 3.5 in. wc high	0.48 kPa low; 0.87 kPa high	-40 F to +175 F	-40 C to +79 C	Natural to LP Conversion Kit; Two 3/4 x 1/2 in. reducer bushings

Dimensions in inches (millimeters)



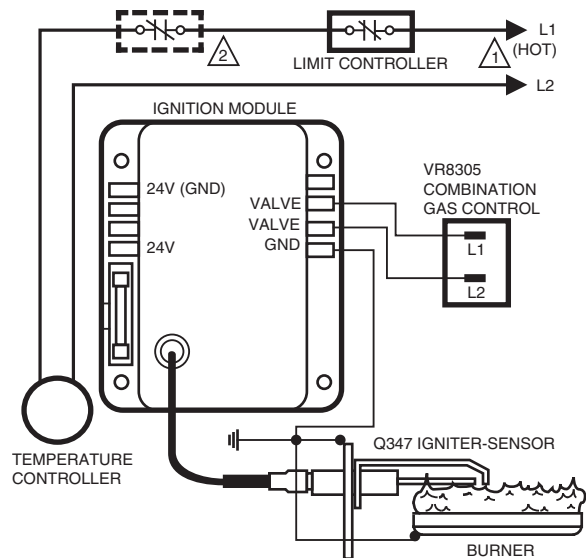
Wiring Connections in S87 Direct Ignition System for 24 volt control.



- 1 POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
- 2 ALTERNATE LIMIT CONTROLLER LOCATION.
- 3 MAXIMUM IGNITER-SENSOR CABLE LENGTH: 3 ft. (0.9 m) OR LESS.
- 4 3A REPLACEABLE FUSE.
- 5 ALARM TERMINAL PROVIDED ON SOME MODELS.

M9043A

Wiring Connections in S87 Direct Ignition System for 120 volt control.



- 1 POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
- 2 ALTERNATE LIMIT CONTROLLER LOCATION.

M3088