

# Combination Gas Controls

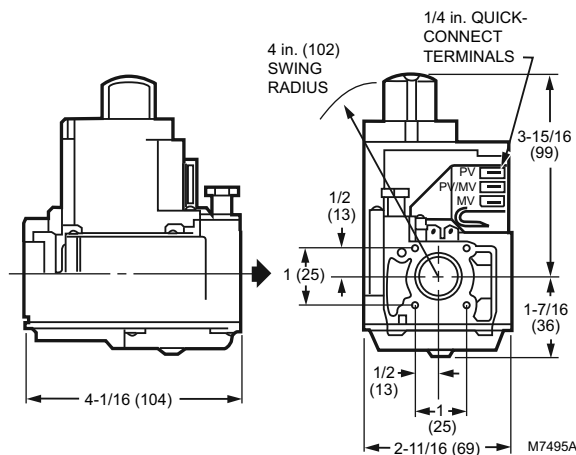
## VR8304 Intermittent Pilot Dual Automatic Valve Combination Gas Control



Combination gas control for use in 24 Vac, gas-fired, intermittent pilot appliances with capacities from 30 to 415 cfh.

- Controls include safety shutoff, manual valve, two automatic operators, pressure regulator and pilot adjustment.

Dimensions in inches (millimeters)



- Use with S86F,H; S860D; S8600F,H; S8610 and S90A,B Control Modules.
- Compact size.
- Provide 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.
- Meet codes requiring dual safety shutoff.
- Standard and slow opening natural gas models include natural to LP gas conversion kit; LP to natural gas conversion kit also available.
- All adjustments, wiring connections and pilot outlet are accessible from top of control.
- Adjustable servo regulator effectively maintains almost constant gas output pressure under wide fluctuations in gas supply pressure.
- Compatible with ECO connector.
- ON-OFF lighting sequence.

**Type:** Single Stage

**Dimensions, Approximate:** 5 3/8 in. high x 4 1/16 in. wide x 2 11/16 in. deep (135 mm high x 104 mm wide x 69 mm deep)

**Body Pattern:** Straight-through

**Capacity @ 1 in. p.d.** 300,000 BTU/hr; 30,000 BTU/hr minimum

**Anticipator Setting:** 0.7 A

**Ignition Type:** Intermittent Pilot

**Pressure Ratings:** 1/2 psi (3.5 kPa)

**Pressure Tapping:** 1/8 in. NPT with plug

**Electrical Ratings:** 24 Vac

**Frequency:** 60 Hz

**Pilot Gas Outlet:** Compression fitting for 1/4 in. OD tubing

**Electrical Connections:** 1/4 in. quick-connect male terminals

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

**Approvals:**

**American Gas Association:** AGA Design Certified: File No. L2025007.

**Canadian Gas Association:** CGA Design Certified: File No. L2025007.

**Underwriters Laboratories Inc.** UL Component Recognized.

Product Number	Type of Gas	Opening Characteristics (standard, step)	Inlet/Outlet Size (in.)	Pressure Regulator Setting		Ambient Temperature Range		Includes
				(psi)	(kPa)	(F)	(C)	
VR8304H4503	Natural	Slow Opening	3/4 in. x 3/4 in.	3.5 in. wc	0.87 kPa	0 F to 175 F	-18 C to +79 C	393691 Natural to LP gas conversion kit.
VR8304M2501	Natural	Standard	1/2 in. x 1/2 in.	3.5 in. wc	0.87 kPa	-40 F to +175 F	-40 C to +79 C	393691 Natural to LP gas conversion kit.
* VR8304M3509	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. x 1/2 in. reducer bushing; 393691 Natural to LP gas conversion kit.
* VR8304M4507	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	Two 3/4 in. x 1/2 in. reducer bushing; 393691 Natural to LP gas conversion kit.
VR8304P4330	LP	Step Opening	3/4 in. x 3/4 in.	Full Rate: 10.0 in. wc; Step Setting: 2.5 in. wc	Full Rate: 2.49 kPa; Step Setting: 0.62 kPa	-40 F to +175 F	-40 C to +79 C	—
VR8304P4504	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	—
VR8304Q4511	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

\* TRADELINE models • SUPER TRADELINE models

# Gas Valve Selection Guide

## Gas Valve Selection Guide

Trade Replacements (Double-Check Specifications Before Replacement)		Specifications				Accessories (Includes)					
Universal Service Part	Direct Service Part Replacement	Opening Characteristics (standard, step)	Inlet/Outlet Size (in.)	Pressure Regulator Setting (psi)	Temperature Range	Q340 Thermocouple	3/4 in. x 1/2 in. Reducer Bushing	Natural to LP Conversion Kit	3/4 in. Straight Range	1/2 in. x 3/8 in. Reducer Bushing	Remote Rod Adapter
VR8300A4516	VR8300A4508	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	Two	One	None	None	None
	VR8300A3500	Standard	1/2 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	One	One	None	None	None
	VR8300A4516	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	One	Two	One	None	None	None
VR8245M2530	VR8204A2076	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	One	One	None
	VR8204M1091	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	None	One	One	One	None
	VR8205A2024	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	One	One	None
	VR8245M2530	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	None	One	None	One	None
VR8345H4555	VR8205H1003	Slow	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	None	None	None	None
	VR8304H4503	Slow	3/4 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	None	None	None
	VR8345H4555	Slow	3/4 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	Two	One	None	None	None
VR8345M4302	VR8304M3509	Standard	1/2 x 3/4	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	One	One	None	None	None
	VR8304M4507	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	Two	One	None	None	None
	VR8305M3506	Standard	1/2 x 3/4	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	One	One	One	None	None
	VR8345M4302	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	Two	One	None	None	None
VR8345Q4563	VR8205Q2555	2-Stage	1/2 x 1/2	1.7 in. wc Low Fire; 3.5 in. wc High Fire	-40 to 175 F (-40 to 79 C)	None	None	One	None	One	None
	VR8304Q4511	2-Stage	3/4 x 3/4	1.7 in. wc Low Fire; 3.5 in. wc High Fire	-40 to 175 F (-40 to 79 C)	None	Two	One	None	None	None
	VR305Q4500	2-Stage	3/4 x 3/4	1.7 in. wc Low Fire; 3.5 in. wc High Fire	-40 to 175 F (-40 to 79 C)	None	One	One	None	None	None
	VR8345Q4563	2-Stage	3/4 x 3/4	1.7 in. wc Low Fire; 3.5 in. wc High Fire	-40 to 175 F (-40 to 79 C)	None	Two	One	None	None	None
VR8200A2744	VR8200A2124	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	One	None	One	One	One	None
	VR8200A2132	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	One	One	None
	VR8200A2744	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	One + One Elbow	One	None
VS820A1088	VS820A1054	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	32 to 175 F (0 to 79 C)	None	Two	None	None	One	None
	VS820A1336	Standard	3/4 s 3/4	10.0 in. wc (2.49 kPa)	32 to 175 F (0 to 79 C)	None	Two	None	None	One	None
	VS820A1088	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	32 to 175 F (0 to 79 C)	None	Two	One	None	One	Yes

**Notes:**

All piloted valves have a 1/4 in. compression fitting.  
 All the VR valves come set for natural gas, but can be converted to LP gas.  
 The VS820A1054 is for natural gas. The VS820A1336 is for LP gas.  
 All the VR valves have inlet and outlet pressure taps. The VS820 valves have just an outlet pressure tap