

VR8300/VR8301 Continuous Pilot Combination Gas Control

Application

These continuous pilot gas controls are used in gas-fired appliances with capacities up to 200 cu ft/hour at 1 in. wc pressure drop [5.7 cu m/hour at 0.25 kPa] on natural gas. They include a manual valve, safety shutoff, single automatic operators, and a pressure regulator. See Table 3 for temperature ranges and regulator types.

BODY PATTERN: Straight-through body pattern.

INLET X OUTLET SIZES AVAILABLE: 1/2 x 1/2 in., 1/2 x 3/4 in., and 3/4 x 3/4 in. (factory-installed inlet flange).

ADAPTERS: Adapters available for 1/2 and 3/4 inch straight and angle connections. Refer to Table 4.

ELECTRICAL RATINGS:

Voltage and Frequency: 24 Vac, 50/60 Hz.

Current Draw: 0.70A.

CAPACITY: See Table 1.

TABLE 1: CAPACITY OF VR8300/VR8301

Size (Inlet x Outlet)	Capacity (at 1 in. wc pressure drop) ^a	Minimum Regulated Capacity	Maximum Regulated Capacity
1/2 x 1/2	180 cu ft/hr [5.1 cu m/hr]	30 cu ft/hr [0.8 cu m/hr]	225 cu ft/hr [6.4 cu m/hr]
1/2 x 3/4	190 cu ft/hr [5.4 cu m/hr]	30 cu ft/hr [0.8 cu m/hr]	290 cu ft/hr [8.2 cu m/hr]
3/4 x 3/4	200 cu ft/hr [5.7 cu m/hr]	30 cu ft/hr [0.8 cu m/hr]	300 cu ft/hr [8.5 cu m/hr]

^a Capacity based on 1000 Btu/cu ft, 0.64 specific gravity natural gas at 1 in. wc pressure drop [37.3 MJ/cu m, 0.64 specific gravity natural gas at 0.25 kPa pressure drop.

Use conversion factors in Table 2 to convert capacities for other gasses.

TABLE 2—GAS CAPACITY
CONVERSION FACTORS.

Gas	Specific Gravity	Multiply Listed Capacity By
Manufactured	0.60	0.516
Mixed	0.70	0.765
Propane	1.53	1.62

TABLE 4—FLANGE PART NUMBERS.

Inlet/Outlet Pipe Size	Flange Type	Part Number	
		Without Hex Wrench	With Hex Wrench
1/2 inch NPT	Straight	394599-6	393690-16
	Elbow	394599-3	393690-13
3/4 inch NPT	Straight	394599-4	393690-14
	Elbow	394599-5	393690-15

NOTE: Flange kits include one flange with attached O-ring and fan mounting screw.

TABLE 3—TEMPERATURE RANGES AND REGULATOR TYPES.

Model Number	Ambient Temperature Range	Regulator Type
VR8300A	0° F to 175° F [-18° C to +79° C]	Standard-opening
VR8300C	0° F to 175° F [-18° C to +79° C]	Step-opening
VR8300H	0° F to 175° F [-18° C to +79° C]	Slow-opening
VR8300K	-40° F to 175° F [-40° C to +79° C]	Slow-opening
VR8300M	-40° F to 175° F [-40° C to +79° C]	Standard-opening
VR8300P	-40° F to 175° F [-40° C to +79° C]	Step-opening
VR8301	0° F to 175° F [-18° C to 79° C]	Standard-opening