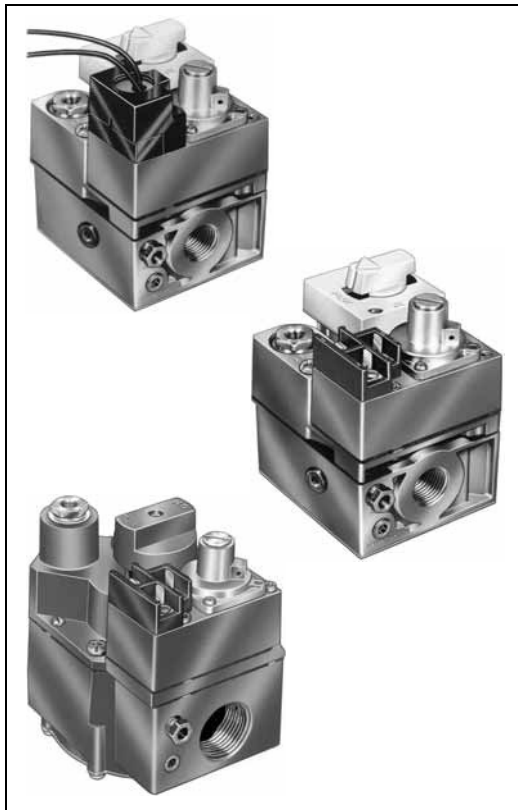


V800 Combination Gas Controls for Heating Appliances

PRODUCT DATA



FEATURES

- Available in 7 capacity ratings.
- Suitable for use on domestic equipment from small individual room heaters to large central heating units.
- Provides 3-position (OFF-PILOT-ON) manual control of gas flow.
- Available in standard opening and step opening pressure regulator models.
- Can be mounted from 0 to 90 degrees from the vertical position of the gas control knob.
- Controls with the prefix "V" require 30 mV thermocouple and suitable pilot burner.
- Controls with the prefix "VS" require 750 mV thermopile generator in a self-generating Powerpile system.
- If gas or power supply is interrupted, main gas valve is closed.
- In case of pilot flame failure, main valve is closed.

APPLICATION

The V800 family of Combination Gas Controls performs all the functions required in the burner manifold on gas-fired heating equipment.

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SPECIFICATIONS

IMPORTANT

The specifications given in this publication do not include normal manufacturing tolerances. Therefore, this unit may not match the listed specifications exactly. Also, this product is tested and calibrated under closely controlled conditions, and some minor differences in performance can be expected if those conditions are changed.

SUPER TRADELINE/TRADELINE MODELS:

SUPER TRADELINE controls offer features not available on TRADELINE or standard models, and are designed to replace a wide range of Honeywell and competitive controls.

TRADELINE models are selected and packaged to provide ease of stocking, ease of handling and maximum replacement value. Specifications of SUPER TRADELINE and TRADELINE controls are the same as those of standard models except as noted below

SUPER TRADELINE MODELS:

V800A Combination Gas Control and VS820A Combination Gas Control with Powerpile with 3/4 in. inlet, 3/4 in. straight through outlet, and 1/2 in. left-hand and right-hand side outlets.

TRADELINE MODELS:

V400A, V800A,C, and VS820A,C Combination Gas Control with either 1/2 in. left-hand or right-hand side outlet.

Additional Features:

Left and right side outlets in addition to the straight-through outlet. Refer to Fig. 3.

Ambient Temperature Range: Models available for 32° to 175° F (0° to 79° C).

Reducer fittings included to fit variety of sizes.

TRADELINE pack with cross reference label and special instruction sheet.

Standard Models:

Models: Refer to Table 1 for model specifications.

V400—120V combination gas control with magnetic type operator.

V800—24V combination gas control with magnetic type operator.

V801—24V combination gas control with magnetic type operator.

VS820, VS821—Millivoltage combination gas control with Powerpile operator.

ORDERING INFORMATION

When purchasing replacement and modernization products from your TRADELINE® wholesaler or distributor, refer to the TRADELINE® Catalog or price sheets for complete ordering number.

If you have additional questions, need further information, or would like to comment on our products or services, please write or phone:

1. Your local Honeywell Automation and Control Products Sales Office (check white pages of your phone directory).
2. Honeywell Customer Care
1885 Douglas Drive North
Minneapolis, Minnesota 55422-4386

In Canada—Honeywell Limited/Honeywell Limitée, 35 Dynamic Drive, Toronto, Ontario M1V 4Z9.

International Sales and Service Offices in all principal cities of the world. Manufacturing in Australia, Canada, Finland, France, Germany, Japan, Mexico, Netherlands, Spain, Taiwan, United Kingdom, U.S.A.

Table 1. Model Specifications.

| Model No. Suffix Letter | Ambient Temperature Range | Pressure Regulator Type | Pressure Regulator Model | Type of Gas | Standard Factory Setting | |
|-------------------------|-----------------------------------|-------------------------------|--------------------------|-------------|----------------------------|---------------------------|
| | | | | | in. wc | kPa |
| A | 32° to 175° F (0° to 79° C) | Standard | V5306 | Nat. | 3.5 | 0.9 |
| | | | | LP | 11.0 | 2.7 |
| C | 32° to 175° F (0° to 79° C) | Step-opening | V5307 | Nat. | 0.9 step 3.5 full rate | 0.2 step 0.9 full rate |
| | | | | LP | 2.2 step 11.0 full rate | 0.5 step 2.7 full rate |
| H | 32° to 175° F (0° to 79° C) | Standard (Delayed opening) | V5306 | Nat. | 3.5 | 0.9 |
| | | | | LP | 11.0 | 2.7 |
| M | -40° to 175° F (-40° to 79° C) | Standard | V5306 | Nat. | 3.5 | 0.9 |
| | | | | LP | 11.0 | 2.7 |
| P | -40° to 175° F (-40° to 79° C) | Step-opening | V5307 | Nat. | 0.9 step 3.5 full rate | 0.2 step 0.9 full rate |
| | | | | LP | 2.2 step 11.0 full rate | 0.5 step 2.7 full rate |

Capacities and Pipe Sizes: See Table 2 for capacity and pipe sizes. Capacity is the same with or without the pressure regulator.

Table 2. Capacities and Pipe Sizes^a.

| Inlet Outlet Size | Capacity ^b cfh | Capacity ^b m ³ /hr | Model Number |
|-------------------|---------------------------|--|-------------------------|
| 1/2 x 3/8 | 110 | 3.1 | V801, VS821 |
| 1/2 x 1/2 | 225 | 5.1 | V400, V800, V810, VS820 |
| 1/2 x 3/4 | 250 | 5.8 | |
| 3/4 x 3/4 | 335 | 5.9 | |
| 3/4 x 3/4 | 450 | 12.7 | High Capacity |
| 3/4 x 1 | 503 | 14.2 | V400, V800, V810, VS820 |
| 1 x 1 | 600 | 17.0 | |

^a All models have leak limit orifice.

^b Capacities are based on 1000 BTU/ft³, 0.64 specific gravity natural gas at 1 in. wc p.c. (37.3 MJ/m³, 0.64 specific gravity natural gas at 0.25 kPa p.d.). Use conversion factors (in Conversion factors table) to convert to other gases.

Conversion Factors:

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

Electrical Connections:

| Valve Operator | Type Connection |
|--------------------------|--|
| 100V, 120V, and 220/240V | 36 in. (0.91 m) leadwires (2) |
| 24V and Powerpile | Combination screw and quick-connect (1/4 in. male) |

Thermostat Heat Anticipator Setting:

24V Models: 0.2A.
100V, 120V, 220/240V
Powerpile Models: Not applicable.

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

Pressure Tapping:

Taps are 1/8 in. NPT with plug containing recess for 3/16 in. Allen wrench. Outlet tap standard, inlet tap available; specify when ordering.

Pressure Rating:

A.G.A. rating 1/2 psi (3.5 kPa) inlet pressure. Designed for safe operation up to 28 in. wc (7.0 kPa).

Mounting:

All models can be mounted from 0 to 90 degrees from the vertical position of the gas control knob.

Dimensions: Refer to Figures 1 and 2.

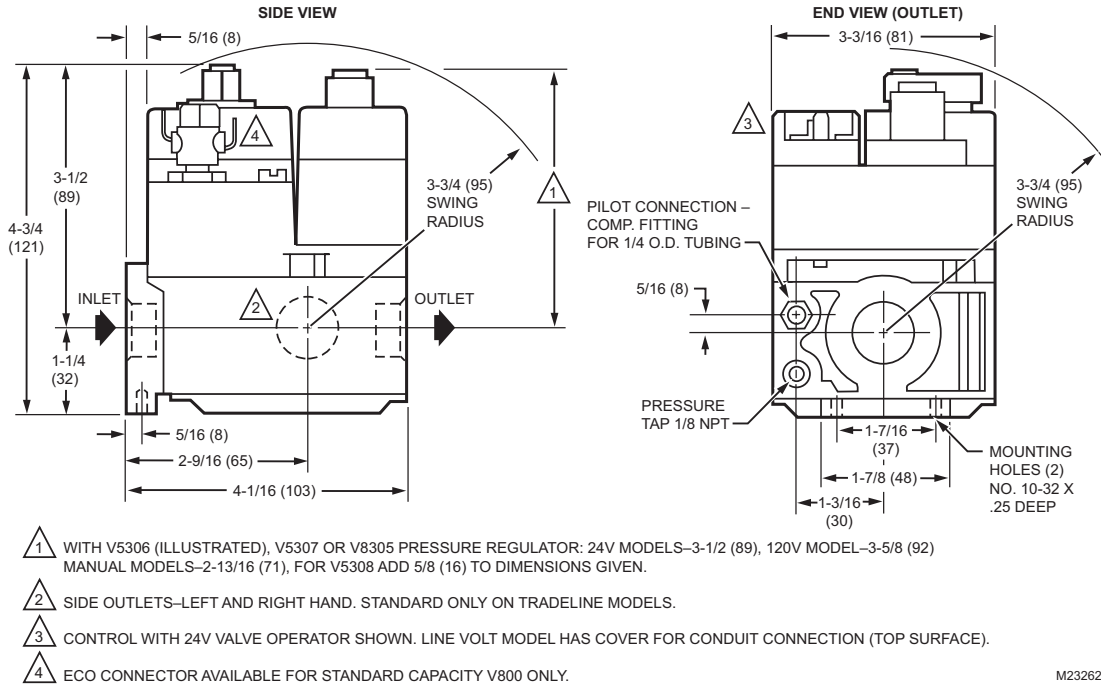


Fig. 1. V800 Family Combination Gas Controls Installation Dimensions in inches (mm).

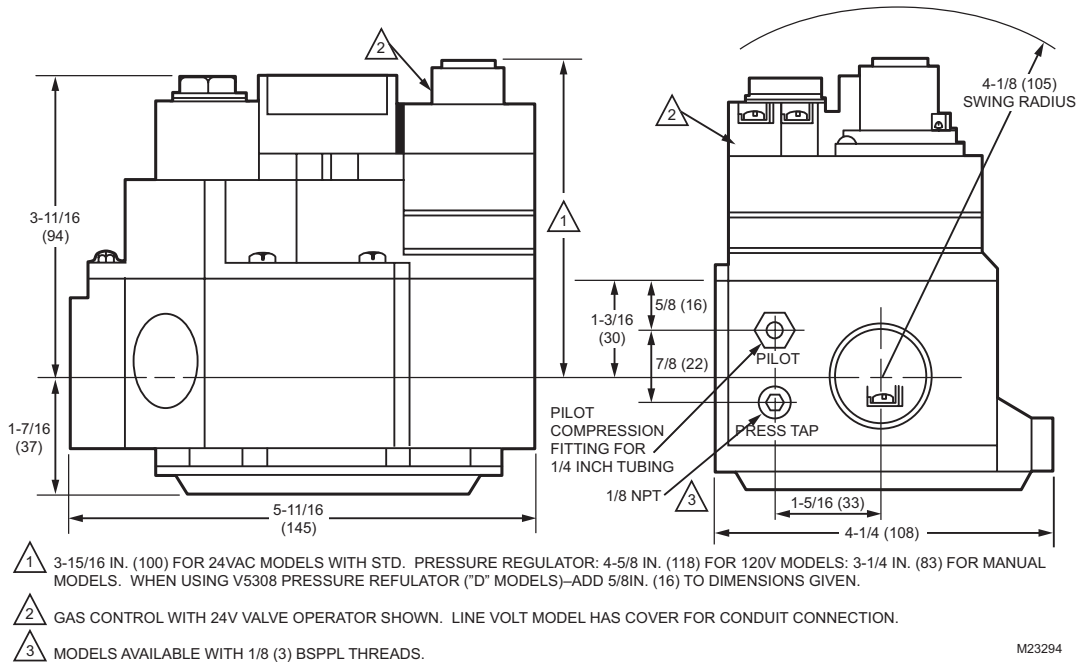


Fig. 2. V800 Family High Capacity Combination Gas Controls Installation Dimensions in inches (mm).

Approvals:

American Gas Association Design Certificate: P-G-774A.
 Underwriters Laboratories Inc. component recognized: File No. MH5323, Guide No. MCCZ2.
 DIN Approval: No. 76.01c.050 only on the V400C5011 high capacity 1 in. BSPP by 1 in. BSPP gas control.

Thermocouple required (ordered separately) for 24V, 100V, 120V, and 220/240V models: Q309 or Q340 suggested.
 Normal output: 30 mV, 0.02 ohms.
 Open circuit turndown voltage: 2 mV.
 Powerpile Generator required (order separately) for 750 mV models: Q302 or Q313 suggested.
 Nominal output: 750 mV, 3.4 ohms.
 Open circuit turndown voltage: 141 mV.