

**SIEMENS**


*Ingenuity for life*

## VGU/VGE – Intelligent gas valve alternatives for residential building

Control Products & Systems OEM



[www.siemens.com/buildingtechnologies-oem](http://www.siemens.com/buildingtechnologies-oem)

A photograph of a modern living room. In the foreground, a grey sofa with a patterned pillow is visible. Behind it is a white modular cabinet with drawers and doors. On top of the cabinet is a large potted plant and a decorative lamp. In the background, a kitchen with white cabinets and a countertop is visible.

# VGU/VGE – the modular and future-oriented gas valve concept

An established product range for many years now, the modular VGU gas valves designed for residential applications stand out thanks to their outstanding compatibility with every well-known product available on the market. This means they are not tied to any specific manufacturer – and are guaranteed to stay that way for many years to come.

The products cover not only the entire field of use, they also offer a host of features and benefits that speak for the range of gas valves supplied by Siemens.

VGE are the innovative and future-oriented universal valves for the gas market. VGE valves line clearly provide more functions than standard gas valves and – due to their great versatility – offer a host of choices for future technical developments.



# When complicated things become simple

## Always the matching solution at hand – products and systems from Siemens for the heating market

We specialize in the development, production and global marketing of reliable and innovative products and systems for use on forced draft burners, heating boilers and alternative heating systems. Our comprehensive product portfolio includes complete system solutions, burner controls, actuators, flame detectors, sensors, control systems, valves and related test equipment.

Thanks to specialization and decades of experience in these fields, our products and systems offer optimum solutions for all market segments ranging from single- and multi-family houses (residential buildings) to commercial buildings and a host of industrial applications.

## VGU/VGE – the complete valve range for every type of application

VGU and VGE gas valves convince not only by their individual features but also by their interplay. Both concepts complement each other to form a perfect product line.

VGU is the ideal alternative for all types of application that rely on proven pneumatic solutions.

VGE is the perfect choice where innovative approaches are required, based on future-oriented electronic solutions.

### HIGHLIGHTS

- Modular concept
- Perfect interplay
- Patented technology
- Host of applications





VGU5



VGU2



VGE



VGU7



VGU8

# VGU – robust yet flexible

### Application area

VGU gas valves are ideally suited for use in residential gas boilers, combi boilers with instantaneous water heaters and hot water heaters, plus gas-fired heating appliances in the fields of catering, direct-fired air heaters and back boilers.

VGU gas valves support boilers employing direct burner ignition (DBI) and boilers using intermittent pilot ignition (IP). The gas valves conform to both European and U.S. standards.

### Extreme robustness

VGU gas valves are based on technology which has proven its worth over many years. All types of VGU valves feature shock-proof servo pressure regulators as well as safety shutoff valves. The modular platform with a large number of identical components ensures high levels of reliability across the entire product line.

### Great flexibility

VGU gas valves operate on supply voltages of 230 V or 24 V. They are suited for both AC and DC operation. The safety shutoff valves can be controlled either in parallel or separately.

### Straightforward mounting and operation

All operating elements of the VGU gas valves are easily accessible from one side. The pressure test points can also be accessed from the same side. To make the settings, minimum standard tools are required.

## HIGHLIGHTS

- Extensive application area
- Optimum boiler support
- Shock-proof servo pressure regulator
- Straightforward mounting and operation





# VGE – complex yet simple

### Extensive application area

VGE gas valves from Siemens are suited for every kind of application. They are designed for use in residential boilers with or without fan assistance, condensing boilers with modulating premix burners and gas families II and III. The VGE valves are equipped with B+B shutoff valves and designed for operation in connection with electronic equipment from Siemens or for autonomous operation.

They support boilers employing direct burner ignition (DBI) and conform to both European and U.S. standards.

### A host of innovations

A safety-related stepper motor provides two functions: Drive for the safety shutoff valve plus modulating drive for the gas output variable.

The unique Sitherm Pro technology ensures optimization of combustion. In modulating mode, the valve oper-

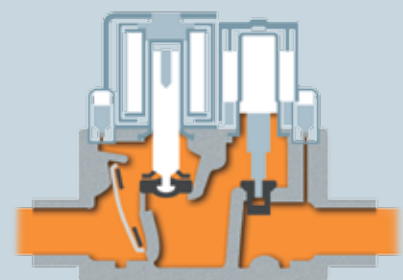
ates without hysteresis and the gas flow characteristic can be influenced. Also, thanks to fully electronic control, there is no more mechanical adjustments necessary.

### Straightforward mounting and operation

VGE gas valves afford very straightforward mounting and ease of operation. They can be mounted either vertically or horizontally. All pressure test points are accessible from the top. The gas flow rate can be controlled, the minimum and maximum flow rates are limited electronically.

## HIGHLIGHTS

- Extensive application area
- Optimum boiler support
- Safety-related stepper motor
- Sitherm Pro technology
- Straightforward mounting and operation

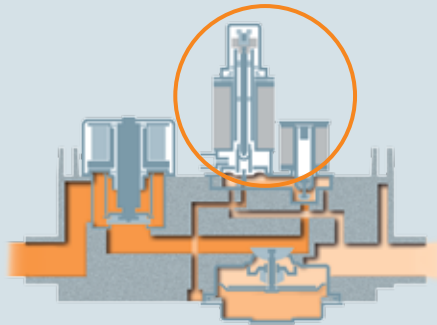


### VGE

- Suited for conventional boilers with modulating burner with or without fan assistance, and for condensing boilers with modulating premix burner
- Hysteresis-free operation
- No mechanical settings required

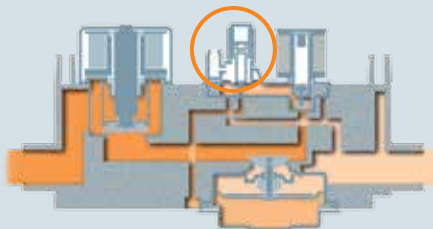
The modular concept enables outstanding compatibility with every well-known product available on the market. This means it is not tied to any specific manufacturer – and is guaranteed to stay that way for many years to come.

# Keeping promises and more



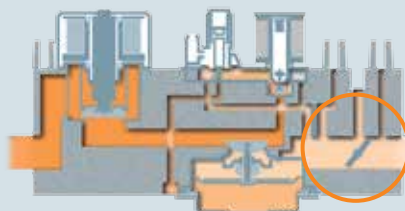
## VGU5

- Suited for conventional boilers with modulating burner with or without fan assistance
- Modulating operation via current signal (low-voltage)
- Control range can be mechanically limited
- Connection facility for combustion chamber pressure compensation



## VGU7

- Suited for condensing boilers with modulating premix burner
- Pneumatic air-fuel ratio control (1:1)
- Modulation by changing the air pressure signal



## VGU8

- Suited for condensing boilers with modulating premix burner
- Pneumatic air-fuel ratio control (1:1)
- Gas volume adjustment via main throttle
- Modulation by changing the air pressure signal
- Adjustment of air-gas ratio and gas volume with identical tool

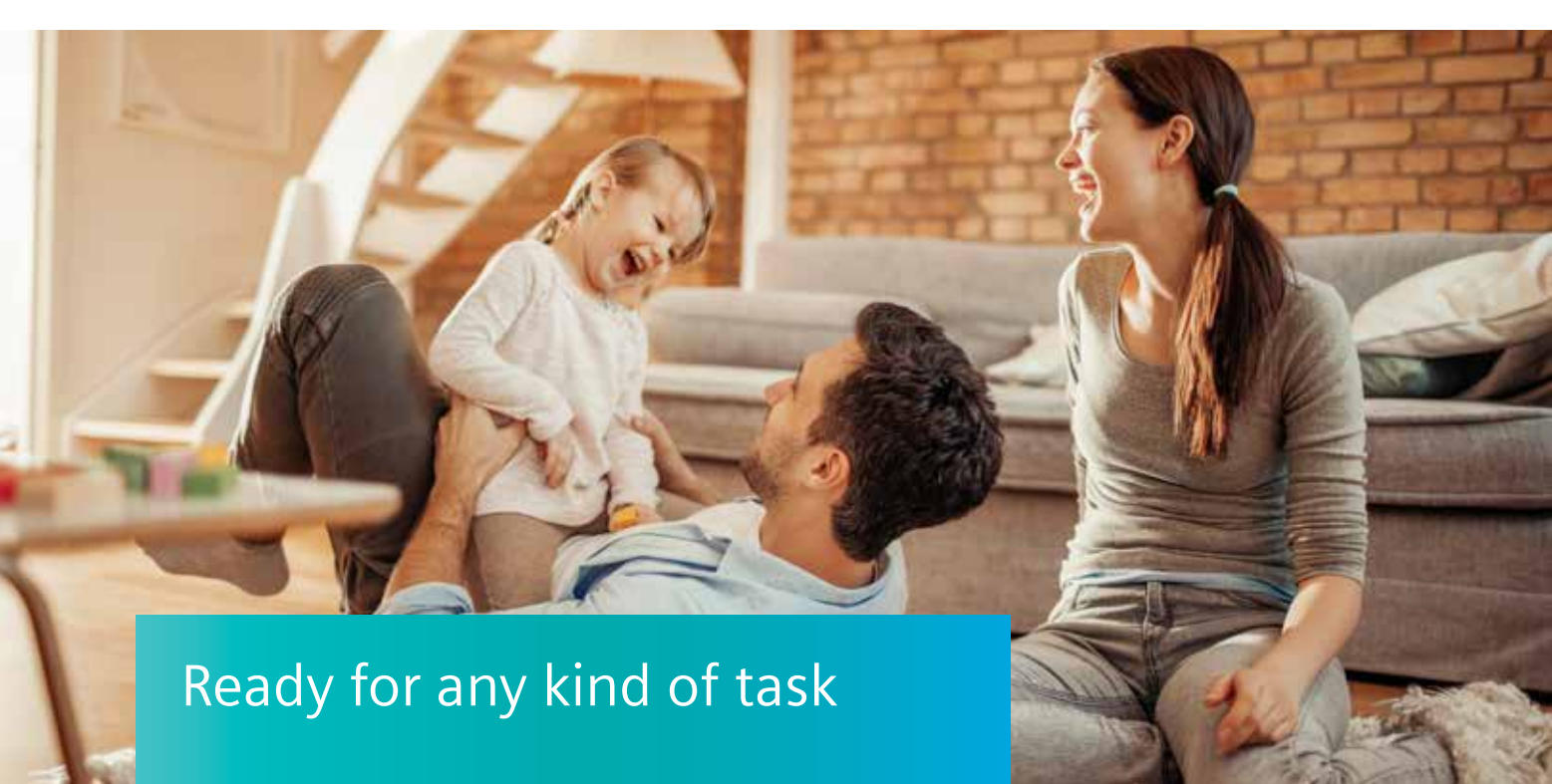
### Standalone solution

The gas valves are very versatile in terms of application and can be used in connection with matching electronic equipment from Siemens or for autonomous operation.

### Application area

Depending on the type of valve, the VGE are suited for use on conventional heating boilers with multi-stage burners, modulating burners or condensing boilers with modulating premix burners.





# Ready for any kind of task

### Innovative boiler control systems

Boiler control systems from Siemens are conceived for a wide application area, ranging from basic boiler control – including flame supervision – to high-end solution Sitherm Pro for demanding requirements.

### Universal range of sensors

Our sensors are available in many different versions for a host of applications: Cable, threaded immersion, strap-on and outside sensors

### Room units with optimized operation and display

Siemens offers as an extensive range of room units. Connections are made via radio link or wire. Key features are straightforward operation, clear-text and backlit display.

### Powerful gas-air mixers

For the suction side with quick connection: Siemens mixers offer a low noise level and an extensive modulation range.

### Electronic high-voltage ignition

Designed to facilitate mounting on Siemens gas valves – ready to mount, prefabricated with cable and plug.

## HIGHLIGHTS

- Innovative boiler control systems
- Temperature sensors for a host of applications
- Noise-optimized gas-air mixing system
- Wireless room units and outside sensors
- Room/operating units with clear-text display in several languages



When building technology creates perfect places –  
that's Ingenuity for life.

Never too cold. Never too warm.  
Always safe. Always secure.

With our knowledge and technology, our products,  
our solutions and our services, we turn places into  
perfect places.

We create perfect places for their users' needs –  
for every stage of life.

**#CreatingPerfectPlaces**

[www.siemens.com/perfect-places](http://www.siemens.com/perfect-places)

**Published by  
Siemens AG**

Siemens Switzerland Ltd  
Building Technologies Division  
International Headquarters  
Gubelstrasse 22  
6301 Zug  
Switzerland  
Tel +41 41 724 24 24

Siemens AG  
Building Technologies Division  
Berliner Ring 23  
76437 Rastatt  
Germany  
Tel +49 7222 598 279

Article no. RA-500121703-en

Subject to changes and errors. The information given in this document  
only contains general descriptions and/or performance features which  
may not always specifically reflect those described, or which may undergo  
modification in the course of further development of the products. The  
requested performance features are binding only when they are expressly  
agreed upon in the concluded contract.

© Siemens AG, 2017

