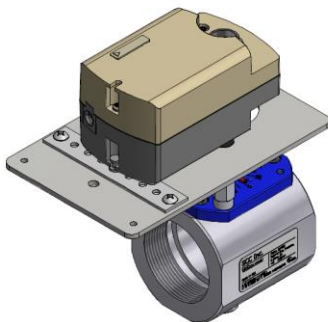
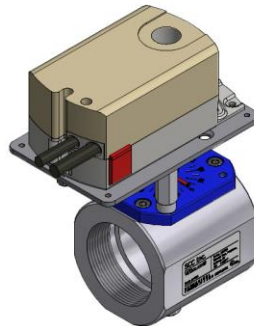


VA Series

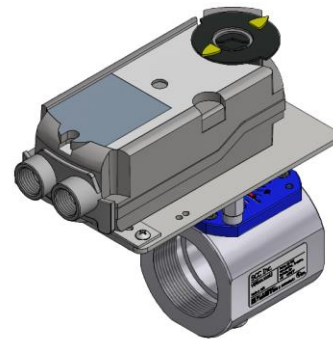
VAG... Valve Actuator Assemblies with VKG Butterfly Valves and Gxx... Actuators



VAGQD...



VAGDE...



VAGAP.../VAGMA.../VAGNP...

Description

VAG... valve actuator assemblies include a Siemens Gxx... actuator reliably mounted to a VKG... butterfly valve to control the flow of natural gas, propane, butane, hydrogen, or air.

Features

- Exclusive, patented technology*
- Fail-safe spring return options available
- Models with dual, independent auxiliary switches available
- VKG... valve sizes available from ½" to 4"
- Includes Siemens GAP..., GDE..., GMA..., GNP..., or GQD... rotary actuator
- Modular design enables field actuator clocking in 90° increments

Application

VAG... valve actuator assemblies mount a GAP..., GDE..., GMA..., GNP..., or GQD... actuator to a VKG... butterfly valve. The VKG... valve and Gxx... actuator are rigidly mounted with Siemens engineered brackets and couplings to ensure precise shaft alignment. VKG technical instructions (CVLV-2000) provide sizing and additional valve information.

*Patented under US Patent No. 9,915,352

Product Part Numbers

The following chart provides VAG... assembly part number identification including a GAP..., GDE..., GMA..., GNP..., or GQD... actuator. Technical instructions for GAP.../GNP... (155-771), GDE... (155-187P25), GMA... (155-315P25), or GQD... (155-760) actuators are available at www.scccombustion.com.

VA GQD151.1P - N F - 200

Valve Actuator Assembly

Actuator Model

GAP191.1P (24 VAC/DC, 53 in-lb, multiple input choices, 0-10 VDC feedback, plenum cable)
 GAP196.1P (24 VAC/DC, 53 in-lb, multiple input choices, 0-10 VDC feedback, dual aux., plenum cable)
 GDE161.1N (24 VAC, 44 in-lb, 0-10 VDC input, post header AMP connection)
 GDE161.1P (24 VAC, 44 in-lb, 0-10 VDC input, 0-10 VDC feedback, plenum cable)
 GDE161.1Q (24 VAC, 44 in-lb, 0-10 VDC input, 0-10 VDC feedback, 6 foot standard cable)
 GDE161.1T (24 VAC, 44 in-lb, 0-10 VDC input, terminal strip connection)
 GDE163.1P (24 VAC, 44 in-lb, 0-10 VDC input, 0-10 VDC feedback, plenum cable, adj. slope / offset)
 GDE164.1P (24 VAC, 44 in-lb, 0-10 VDC input, 0-10 VDC feedback, dual aux., plenum cable, adj. slope / offset)
 GDE166.1P (24 VAC, 44 in-lb, 0-10 VDC input, 0-10 VDC feedback, dual aux., plenum cable)
 GMA121.1U (24 VAC/DC, 62 in-lb, spring return, 2-position input, standard cable)
 GMA131.1U (24 VAC/DC, 62 in-lb, spring return, 3-position input, standard cable)
 GMA166.1U (24 VAC/DC, 62 in-lb, spring return, 0-10 VDC input, 0-10 VDC feedback, dual aux., standard cable)
 GMA221.1U (120 VAC, 62 in-lb, spring return, 2-position input, standard cable)
 GMA226.1U (120 VAC, 62 in-lb, spring return, 2-position input, dual aux., standard cable)
 GNP191.1P (24 VAC/DC, 53 in-lb, spring return, multiple input choices, 0-10 VDC feedback, plenum cable)
 GQD121.1P (24 VAC/DC, 20 in-lb, spring return, 2-position input, plenum cable)
 GQD151.1P (24 VAC/DC, 20 in-lb, spring return, 2-10 VDC input, 2-10 VDC feedback, plenum cable)
 GQD156.1P (24 VAC/DC, 20 in-lb, spring return, 2-10 VDC input, 2-10 VDC feedback, dual aux., plenum cable)
 GQD221.1U (120 VAC, 20 in-lb, spring return, 2-position input, appliance cable)
 GQD226.1U (120 VAC, 20 in-lb, spring return, 2-position input, dual aux., appliance cable)

Pipe Thread

N = NPT

Port Size

F = Full Port
 M = Medium Port
 R = Reduced Port

Pipe Size

| (mm) | (inches) | |
|------|----------|--------------------------------|
| 050H | = 1/2" | → Full port only, NPT only |
| 075 | = 3/4" | → Full port only |
| 100 | = 1" | |
| 125 | = 1-1/4" | → Full port & medium port only |
| 150 | = 1-1/2" | |
| 200 | = 2" | |
| 250 | = 2-1/2" | |
| 300 | = 3" | |
| 400 | = 4" | |

Product Part Numbers (continued)

The following chart provides a summary of the features of each Gxx... actuator that can be used with a VAG... valve actuator assembly.

Table 1: Critical Features of Each Gxx... Actuator

| Actuator Model | Operating Voltage | Torque (in-lb) | Spring Return | Dual Aux. Switches | Electrical Connection | Slope / Offset Adjustable | Control Signal | Position Feedback Signal |
|----------------|-------------------|----------------|---------------|--------------------|-----------------------|---------------------------|--|--------------------------|
| GAP191.1P | 24 VAC/DC | 53 | No | No | Plenum cable | No | 2-position, 3-position, 0/2-10 VDC, or 0/4-20 mA | 0-10 VDC |
| GAP196.1P | 24 VAC/DC | 53 | No | Yes | Plenum cable | No | 2-position, 3-position, 0/2-10 VDC, or 0/4-20 mA | 0-10 VDC |
| GDE161.1N | 24 VAC | 44 | No | No | Post header AMP | No | 0-10 VDC | No |
| GDE161.1P | 24 VAC | 44 | No | No | Plenum cable | No | 0-10 VDC | 0-10 VDC |
| GDE161.1Q | 24 VAC | 44 | No | No | 6 foot length | No | 0-10 VDC | 0-10 VDC |
| GDE161.1T | 24 VAC | 44 | No | No | Terminal strip | No | 0-10 VDC | No |
| GDE163.1P | 24 VAC | 44 | No | No | Plenum cable | Yes | 0-10 VDC | 0-10 VDC |
| GDE164.1P | 24 VAC | 44 | No | Yes | Plenum cable | Yes | 0-10 VDC | 0-10 VDC |
| GDE166.1P | 24 VAC | 44 | No | Yes | Plenum cable | No | 0-10 VDC | 0-10 VDC |
| GMA121.1U | 24 VAC/DC | 62 | Yes | No | Standard cable | No | 2-position | No |
| GMA131.1U | 24 VAC/DC | 62 | Yes | No | Standard cable | No | 3-position | No |
| GMA166.1U | 24 VAC/DC | 62 | Yes | Yes | Standard cable | No | 0-10 VDC | 0-10 VDC |
| GMA221.1U | 120 VAC | 62 | Yes | No | Standard cable | No | 2-position | No |
| GMA226.1U | 120 VAC | 62 | Yes | Yes | Standard cable | No | 2-position | No |
| GNP191.1P | 24 VAC/DC | 53 | Yes | No | Plenum cable | No | 2-position, 3-position, 0/2-10 VDC, or 0/4-20 mA | 0-10 VDC |
| GQD121.1P | 24 VAC/DC | 20 | Yes | No | Plenum cable | No | 2-position | No |
| GQD151.1P | 24 VAC/DC | 20 | Yes | No | Plenum cable | No | 2-10 VDC / 10-2 VDC | 2-10 VDC / 10-2 VDC |
| GQD156.1P | 24 VAC/DC | 20 | Yes | Yes | Plenum cable | No | 2-10 VDC / 10-2 VDC | 2-10 VDC / 10-2 VDC |
| GQD221.1U | 120 VAC | 20 | Yes | No | Appliance cable | No | 2-position | No |
| GQD226.1U | 120 VAC | 20 | Yes | Yes | Appliance cable | No | 2-position | No |

Installation

- Gxx... actuators are clockable relative to the VKG... valve. To change the orientation of the actuator, perform the following steps:
 1. Loosen actuator clamp
 2. Remove (2) pan head screws holding down anti-rotation bracket
 3. Lift actuator off assembly
 4. Remove (2) M6 flat socket head cap screws and remove bracket
 5. If necessary, unthread (2) hex standoffs and move to other set of mounting holes
 6. Re-install (2) M6 flat socket head cap screws and bracket
 7. Slide actuator over shaft adapter and onto anti-rotation pin
 8. Re-install (2) pan head screws to hold down anti-rotation bracket
 9. Tighten actuator clamp
- Red pointer on VKG... valve shows valve position after installation.
- VKG... valves can accommodate flow in either direction.

Dimensions

Dimensions in inches [mm]

VAGAP.../VAGMA.../VAGNP... Valve Actuator Assemblies

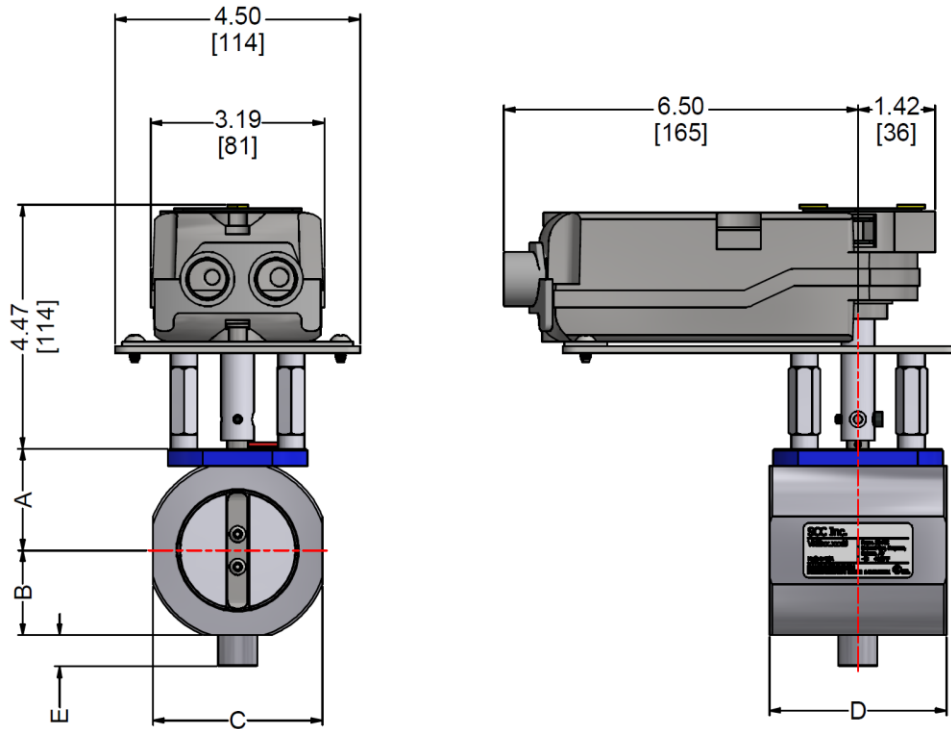


Table 2: VAGAP.../VAGMA.../VAGNP... Dimensions

| Assembly Part Number Suffix | A | B | C | D | E |
|-----------------------------|-----------|-----------|------------|------------|-----------|
| 050H | 1.35 [34] | 1.12 [29] | 2.08 [53] | 3.25 [83] | 0.21 [5] |
| 075 | 1.35 [34] | 1.04 [26] | 2.08 [53] | 3.25 [83] | 0.58 [15] |
| 100 | 1.35 [34] | 1.04 [26] | 2.08 [53] | 3.25 [83] | 0.58 [15] |
| 125 | 1.53 [39] | 1.22 [31] | 2.44 [62] | 3.25 [83] | 0.58 [15] |
| 150 | 1.63 [41] | 1.31 [33] | 2.63 [67] | 3.25 [83] | 0.58 [15] |
| 200 | 1.87 [47] | 1.55 [39] | 3.11 [79] | 3.25 [83] | 0.58 [15] |
| 250 | 2.18 [55] | 1.87 [47] | 3.74 [95] | 4.38 [111] | 0.58 [15] |
| 300 | 2.44 [62] | 2.13 [54] | 4.26 [108] | 4.38 [111] | 0.58 [15] |
| 400 | 2.96 [75] | 2.64 [67] | 5.28 [134] | 5.00 [127] | 0.58 [15] |

Dimensions (continued)

Dimensions in inches [mm]

VAGDE... Valve Actuator Assemblies

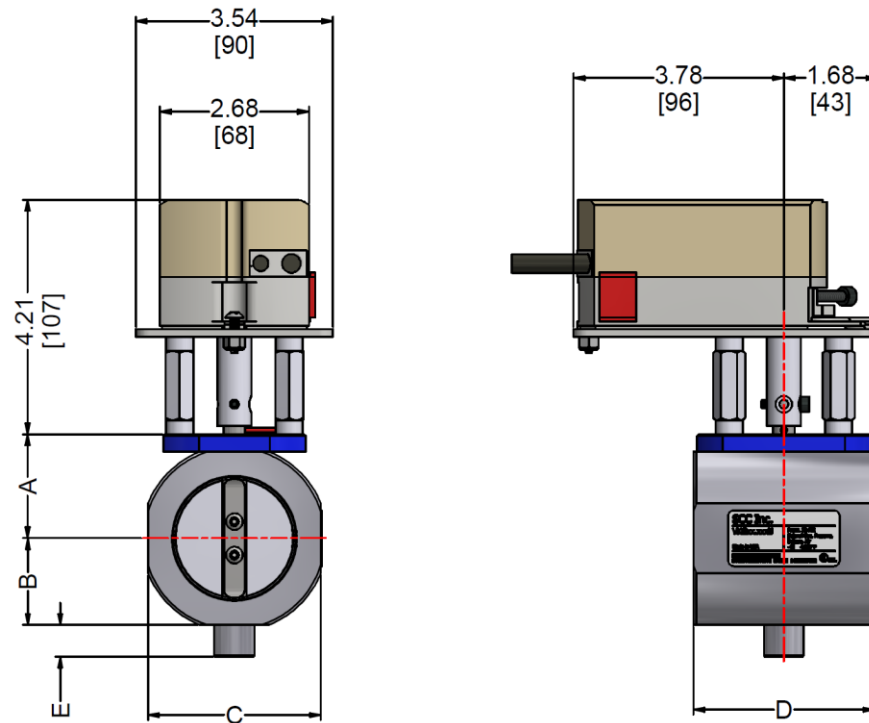


Table 3: VAGDE... Dimensions

| Assembly Part Number Suffix | A | B | C | D | E |
|-----------------------------|-----------|-----------|------------|------------|-----------|
| 050H | 1.35 [34] | 1.12 [29] | 2.08 [53] | 3.25 [83] | 0.21 [5] |
| 075 | 1.35 [34] | 1.04 [26] | 2.08 [53] | 3.25 [83] | 0.58 [15] |
| 100 | 1.35 [34] | 1.04 [26] | 2.08 [53] | 3.25 [83] | 0.58 [15] |
| 125 | 1.53 [39] | 1.22 [31] | 2.44 [62] | 3.25 [83] | 0.58 [15] |
| 150 | 1.63 [41] | 1.31 [33] | 2.63 [67] | 3.25 [83] | 0.58 [15] |
| 200 | 1.87 [47] | 1.55 [39] | 3.11 [79] | 3.25 [83] | 0.58 [15] |
| 250 | 2.18 [55] | 1.87 [47] | 3.74 [95] | 4.38 [111] | 0.58 [15] |
| 300 | 2.44 [62] | 2.13 [54] | 4.26 [108] | 4.38 [111] | 0.58 [15] |
| 400 | 2.96 [75] | 2.64 [67] | 5.28 [134] | 5.00 [127] | 0.58 [15] |

Dimensions (continued)

Dimensions in inches [mm]

VAGQD... Valve Actuator Assemblies

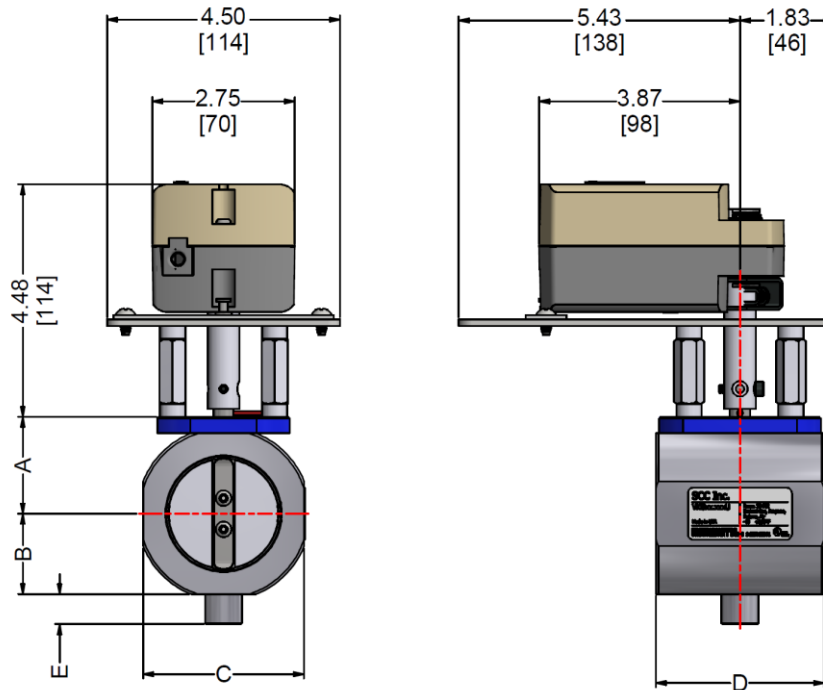


Table 4: VAGQD... Dimensions

| Assembly Part Number Suffix | A | B | C | D | E |
|-----------------------------|-----------|-----------|------------|------------|-----------|
| 050H | 1.35 [34] | 1.12 [29] | 2.08 [53] | 3.25 [83] | 0.21 [5] |
| 075 | 1.35 [34] | 1.04 [26] | 2.08 [53] | 3.25 [83] | 0.58 [15] |
| 100 | 1.35 [34] | 1.04 [26] | 2.08 [53] | 3.25 [83] | 0.58 [15] |
| 125 | 1.53 [39] | 1.22 [31] | 2.44 [62] | 3.25 [83] | 0.58 [15] |
| 150 | 1.63 [41] | 1.31 [33] | 2.63 [67] | 3.25 [83] | 0.58 [15] |
| 200 | 1.87 [47] | 1.55 [39] | 3.11 [79] | 3.25 [83] | 0.58 [15] |
| 250 | 2.18 [55] | 1.87 [47] | 3.74 [95] | 4.38 [111] | 0.58 [15] |
| 300 | 2.44 [62] | 2.13 [54] | 4.26 [108] | 4.38 [111] | 0.58 [15] |
| 400 | 2.96 [75] | 2.64 [67] | 5.28 [134] | 5.00 [127] | 0.58 [15] |

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