

# VG7000 Series Brass Trim Globe Valves with V-3000 Pneumatic Actuators

## Description

VG7000 Series brass trimmed globe valves with V-3000 pneumatic actuators control hot or chilled water or 38 psig saturated steam.

## Features

- rugged actuator die-cast enclosure, fits VG7000 valves 1/2 through 2 in.
- effective diaphragm area: 8 sq in.
- controls: hot or chilled water, 38 psig saturated steam
- valve trim: brass
- maximum supply air pressure: 25 psig (172 kPa)
- fluid temperature: 35 to 284°F (2 to 140°C), 38 psig saturated steam
- valve body static pressure rating: ANSI Class 250

- factory or field assembly

- for optional V-9502-90 Positioner, add a P to the end of the code number (not available with enclosed spring actuator)

## Repair Information

If the VG7000 Brass Trim Globe Valve with V-3000 Pneumatic Actuator fails to operate within its specifications, replace the unit. For a replacement valve or actuator, contact the nearest Johnson Controls® representative.



V-3000-8012 Pneumatic Actuator  
Mounted on VG7441 Brass Globe Valve

## Selection Charts

### VG7000 Series Valve Assemblies with V-3000-8012 Exposed Pneumatic Actuators (Part 1 of 3)

| Actuator Code                                                                                                                                          |                 |             | V-3000-8012 |                |              |                |           |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-------------|----------------|--------------|----------------|-----------|----------------|
| Mounting Kit                                                                                                                                           | 1/2 and 3/4 in. | VG7000-1001 | VG7000-1002 | VG7000-1003    |              |                |           |                |
|                                                                                                                                                        | 1 and 1-1/4 in. | VG7000-1004 | VG7000-1005 | VG7000-1006    |              |                |           |                |
|                                                                                                                                                        | 1-1/2 and 2 in. | VG7000-1007 | VG7000-1008 | VG7000-1009    |              |                |           |                |
| Spring Range                                                                                                                                           |                 |             | 3 to 6 psig | 4 to 8 psig    | 9 to 13 psig |                |           |                |
| Valve                                                                                                                                                  | Size, in.       | Cv          | Closeoff    | Code Number    | Closeoff     | Code Number    | Closeoff  | Code Number    |
| <b>Two-Way Normally Open – NPT End Connections</b> (To specify a factory-mounted pneumatic positioner, add a P to the end of the code number.)         |                 |             |             |                |              |                |           |                |
| VG7241CT                                                                                                                                               | 1/2             | 0.73        | 365         | VG7241CT+3008B | 339          | VG7241CT+3008D | 191       | VG7241CT+3008E |
| VG7241ET                                                                                                                                               | 1/2             | 1.8         | 365         | VG7241ET+3008B | 339          | VG7241ET+3008D | 191       | VG7241ET+3008E |
| VG7241GT                                                                                                                                               | 1/2             | 4.6         | 225         | VG7241GT+3008B | 192          | VG7241GT+3008D | 108       | VG7241GT+3008E |
| VG7241LT                                                                                                                                               | 3/4             | 7.3         | 144         | VG7241LT+3008B | 122          | VG7241LT+3008D | 69        | VG7241LT+3008E |
| VG7241NT                                                                                                                                               | 1               | 11.6        | 90          | VG7241NT+3008B | 76           | VG7241NT+3008D | 42        | VG7241NT+3008E |
| VG7241PT                                                                                                                                               | 1-1/4           | 18.5        | 55          | VG7241PT+3008B | 47           | VG7241PT+3008D | 26        | VG7241PT+3008E |
| VG7241RT                                                                                                                                               | 1-1/2           | 28.9        | 35          | VG7241RT+3008B | 30           | VG7241RT+3008D | 16        | VG7241RT+3008E |
| VG7241ST                                                                                                                                               | 2               | 46.2        | 22          | VG7241ST+3008B | 19           | VG7241ST+3008D | 11        | VG7241ST+3008E |
| <b>Two-Way Normally Closed – NPT End Connections</b> (To specify a factory-mounted pneumatic positioner, add a P to the end of the code number.)       |                 |             |             |                |              |                |           |                |
| VG7441CT                                                                                                                                               | 1/2             | 0.73        | 100         | VG7441CT+3008B | 142          | VG7441CT+3008D | 348       | VG7441CT+3008E |
| VG7441ET                                                                                                                                               | 1/2             | 1.8         | 100         | VG7441ET+3008B | 142          | VG7441ET+3008D | 348       | VG7441ET+3008E |
| VG7441GT                                                                                                                                               | 1/2             | 4.6         | 49          | VG7441GT+3008B | 68           | VG7441GT+3008D | 168       | VG7441GT+3008E |
| VG7441LT                                                                                                                                               | 3/4             | 7.3         | 29          | VG7441LT+3008B | 41           | VG7441LT+3008D | 100       | VG7441LT+3008E |
| VG7441NT                                                                                                                                               | 1               | 11.6        | 17          | VG7441NT+3008B | 25           | VG7441NT+3008D | 65        | VG7441NT+3008E |
| VG7441PT                                                                                                                                               | 1-1/4           | 18.5        | 10          | VG7441PT+3008B | 14           | VG7441PT+3008D | 37        | VG7441PT+3008E |
| VG7441RT                                                                                                                                               | 1-1/2           | 28.9        | 6           | VG7441RT+3008B | 9            | VG7441RT+3008D | 23        | VG7441RT+3008E |
| VG7441ST                                                                                                                                               | 2               | 46.2        | 4           | VG7441ST+3008B | 6            | VG7441ST+3008D | 14        | VG7441ST+3008E |
| <b>Three-Way Mixing – NPT End Connections</b> (To specify a factory-mounted pneumatic positioner, add a P to the end of the code number.)              |                 |             |             |                |              |                |           |                |
| VG7842CT                                                                                                                                               | 1/2             | 0.73        | 365 / 100   | VG7842CT+3008B | 339 / 142    | VG7842CT+3008D | 191 / 348 | VG7842CT+3008E |
| VG7842ET                                                                                                                                               | 1/2             | 1.8         | 365 / 100   | VG7842ET+3008B | 339 / 142    | VG7842ET+3008D | 191 / 348 | VG7842ET+3008E |
| VG7842GT                                                                                                                                               | 1/2             | 4.6         | 225 / 49    | VG7842GT+3008B | 192 / 68     | VG7842GT+3008D | 108 / 168 | VG7842GT+3008E |
| VG7842LT                                                                                                                                               | 3/4             | 7.3         | 144 / 29    | VG7842LT+3008B | 122 / 41     | VG7842LT+3008D | 69 / 100  | VG7842LT+3008E |
| VG7842NT                                                                                                                                               | 1               | 11.6        | 90 / 17     | VG7842NT+3008B | 76 / 25      | VG7842NT+3008D | 42 / 65   | VG7842NT+3008E |
| VG7842PT                                                                                                                                               | 1-1/4           | 18.5        | 55 / 10     | VG7842PT+3008B | 47 / 14      | VG7842PT+3008D | 26 / 37   | VG7842PT+3008E |
| VG7842RT                                                                                                                                               | 1-1/2           | 28.9        | 35 / 6      | VG7842RT+3008B | 30 / 9       | VG7842RT+3008D | 16 / 23   | VG7842RT+3008E |
| VG7842ST                                                                                                                                               | 2               | 46.2        | 22 / 4      | VG7842ST+3008B | 19 / 6       | VG7842ST+3008D | 11 / 14   | VG7842ST+3008E |
| <b>Two-Way Normally Open – Union Sweat End Connections</b> (To specify a factory-mounted pneumatic positioner, add a P to the end of the code number.) |                 |             |             |                |              |                |           |                |
| VG7281CT                                                                                                                                               | 1/2             | 0.73        | 365         | VG7281CT+3008B | 339          | VG7281CT+3008D | 191       | VG7281CT+3008E |

## VG7000 Series Brass Trim Globe Valves with V-3000 Pneumatic Actuators (Continued)

### VG7000 Series Valve Assemblies with V-3000-8012 Exposed Pneumatic Actuators (Part 2 of 3)

| Actuator Code                                                                                                                                               |                 |      | V-3000-8012 |                |             |                |              |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------|-------------|----------------|-------------|----------------|--------------|----------------|
| Mounting Kit                                                                                                                                                | 1/2 and 3/4 in. |      | VG7000-1001 |                | VG7000-1002 |                | VG7000-1003  |                |
|                                                                                                                                                             | 1 and 1-1/4 in. |      | VG7000-1004 |                | VG7000-1005 |                | VG7000-1006  |                |
|                                                                                                                                                             | 1-1/2 and 2 in. |      | VG7000-1007 |                | VG7000-1008 |                | VG7000-1009  |                |
| Spring Range                                                                                                                                                |                 |      | 3 to 6 psig |                | 4 to 8 psig |                | 9 to 13 psig |                |
| Valve                                                                                                                                                       | Size, in.       | Cv   | Closeoff    | Code Number    | Closeoff    | Code Number    | Closeoff     | Code Number    |
| VG7281ET                                                                                                                                                    | 1/2             | 1.8  | 365         | VG7281ET+3008B | 339         | VG7281ET+3008D | 191          | VG7281ET+3008E |
| VG7281GT                                                                                                                                                    | 1/2             | 4.6  | 225         | VG7281GT+3008B | 192         | VG7281GT+3008D | 108          | VG7281GT+3008E |
| VG7281LT                                                                                                                                                    | 3/4             | 7.3  | 144         | VG7281LT+3008B | 122         | VG7281LT+3008D | 69           | VG7281LT+3008E |
| VG7281NT                                                                                                                                                    | 1               | 11.6 | 90          | VG7281NT+3008B | 76          | VG7281NT+3008D | 42           | VG7281NT+3008E |
| VG7281PT                                                                                                                                                    | 1-1/4           | 18.5 | 55          | VG7281PT+3008B | 47          | VG7281PT+3008D | 26           | VG7281PT+3008E |
| VG7281RT                                                                                                                                                    | 1-1/2           | 28.9 | 35          | VG7281RT+3008B | 30          | VG7281RT+3008D | 16           | VG7281RT+3008E |
| VG7281ST                                                                                                                                                    | 2               | 46.2 | 22          | VG7281ST+3008B | 19          | VG7281ST+3008D | 11           | VG7281ST+3008E |
| Two-Way Normally Closed – Union Sweat End Connections<br>(To specify a factory-mounted pneumatic postioner, add a P to the end of the code number.)         |                 |      |             |                |             |                |              |                |
| VG7481CT                                                                                                                                                    | 1/2             | 0.73 | 100         | VG7481CT+3008B | 142         | VG7481CT+3008D | 348          | VG7481CT+3008E |
| VG7481ET                                                                                                                                                    | 1/2             | 1.8  | 100         | VG7481ET+3008B | 142         | VG7481ET+3008D | 348          | VG7481ET+3008E |
| VG7481GT                                                                                                                                                    | 1/2             | 4.6  | 49          | VG7481GT+3008B | 68          | VG7481GT+3008D | 168          | VG7481GT+3008E |
| VG7481LT                                                                                                                                                    | 3/4             | 7.3  | 29          | VG7481LT+3008B | 41          | VG7481LT+3008D | 100          | VG7481LT+3008E |
| VG7481NT                                                                                                                                                    | 1               | 11.6 | 17          | VG7481NT+3008B | 25          | VG7481NT+3008D | 65           | VG7481NT+3008E |
| VG7481PT                                                                                                                                                    | 1-1/4           | 18.5 | 10          | VG7481PT+3008B | 14          | VG7481PT+3008D | 37           | VG7481PT+3008E |
| VG7481RT                                                                                                                                                    | 1-1/2           | 28.9 | 6           | VG7481RT+3008B | 9           | VG7481RT+3008D | 23           | VG7481RT+3008E |
| VG7481ST                                                                                                                                                    | 2               | 46.2 | 4           | VG7481ST+3008B | 6           | VG7481ST+3008D | 14           | VG7481ST+3008E |
| Three-Way Mixing – Union Sweat End Connections (To specify a factory-mounted pneumatic postioner, add a P to the end of the code number.)                   |                 |      |             |                |             |                |              |                |
| VG7882CT                                                                                                                                                    | 1/2             | 0.73 | 365 / 100   | VG7882CT+3008B | 339 / 142   | VG7882CT+3008D | 191 / 348    | VG7882CT+3008E |
| VG7882ET                                                                                                                                                    | 1/2             | 1.8  | 365 / 100   | VG7882ET+3008B | 339 / 142   | VG7882ET+3008D | 191 / 348    | VG7882ET+3008E |
| VG7882GT                                                                                                                                                    | 1/2             | 4.6  | 225 / 49    | VG7882GT+3008B | 192 / 68    | VG7882GT+3008D | 108 / 168    | VG7882GT+3008E |
| VG7882LT                                                                                                                                                    | 3/4             | 7.3  | 144 / 29    | VG7882LT+3008B | 122 / 41    | VG7882LT+3008D | 69 / 100     | VG7882LT+3008E |
| VG7882NT                                                                                                                                                    | 1               | 11.6 | 90 / 17     | VG7882NT+3008B | 76 / 25     | VG7882NT+3008D | 42 / 65      | VG7882NT+3008E |
| VG7882PT                                                                                                                                                    | 1-1/4           | 18.5 | 55 / 10     | VG7882PT+3008B | 47 / 14     | VG7882PT+3008D | 26 / 37      | VG7882PT+3008E |
| VG7882RT                                                                                                                                                    | 1-1/2           | 28.9 | 35 / 6      | VG7882RT+3008B | 30 / 9      | VG7882RT+3008D | 16 / 23      | VG7882RT+3008E |
| VG7882ST                                                                                                                                                    | 2               | 46.2 | 22 / 4      | VG7882ST+3008B | 19 / 6      | VG7882ST+3008D | 11 / 14      | VG7882ST+3008E |
| Two-Way Normally Open – 3/8 in. Union Sweat End Connections<br>(To specify a factory-mounted pneumatic postioner, add a P to the end of the code number.)   |                 |      |             |                |             |                |              |                |
| VG7271CT                                                                                                                                                    | 1/2             | 0.73 | 365         | VG7271CT+3008B | 339         | VG7271CT+3008D | 191          | VG7271CT+3008E |
| VG7271ET                                                                                                                                                    | 1/2             | 1.8  | 365         | VG7271ET+3008B | 339         | VG7271ET+3008D | 191          | VG7271ET+3008E |
| VG7271GT                                                                                                                                                    | 1/2             | 4.6  | 225         | VG7271GT+3008B | 192         | VG7271GT+3008D | 108          | VG7271GT+3008E |
| Two-Way Normally Closed – 3/8 in. Union Sweat End Connections<br>(To specify a factory-mounted pneumatic postioner, add a P to the end of the code number.) |                 |      |             |                |             |                |              |                |
| VG7471CT                                                                                                                                                    | 1/2             | 0.73 | 100         | VG7471CT+3008B | 142         | VG7471CT+3008D | 348          | VG7471CT+3008E |
| VG7471ET                                                                                                                                                    | 1/2             | 1.8  | 100         | VG7471ET+3008B | 142         | VG7471ET+3008D | 348          | VG7471ET+3008E |
| VG7471GT                                                                                                                                                    | 1/2             | 4.6  | 49          | VG7471GT+3008B | 68          | VG7471GT+3008D | 168          | VG7471GT+3008E |
| Three-Way Mixing – 3/8 in. Union Sweat End Connections (To specify a factory-mounted pneumatic postioner, add a P to the end of the code number.)           |                 |      |             |                |             |                |              |                |
| VG7872CT                                                                                                                                                    | 1/2             | 0.73 | 365 / 100   | VG7872CT+3008B | 339 / 142   | VG7872CT+3008D | 191 / 348    | VG7872CT+3008E |
| VG7872ET                                                                                                                                                    | 1/2             | 1.8  | 365 / 100   | VG7872ET+3008B | 339 / 142   | VG7872ET+3008D | 191 / 348    | VG7872ET+3008E |
| VG7872GT                                                                                                                                                    | 1/2             | 4.6  | 225 / 49    | VG7872GT+3008B | 192 / 68    | VG7872GT+3008D | 108 / 168    | VG7872GT+3008E |
| Two-Way Normally Open – 3/4 in. Union Sweat End Connections<br>(To specify a factory-mounted pneumatic postioner, add a P to the end of the code number.)   |                 |      |             |                |             |                |              |                |
| VG7291CT                                                                                                                                                    | 1/2             | 0.73 | 365         | VG7291CT+3008B | 339         | VG7291CT+3008D | 191          | VG7291CT+3008E |
| VG7291ET                                                                                                                                                    | 1/2             | 1.8  | 365         | VG7291ET+3008B | 339         | VG7291ET+3008D | 191          | VG7291ET+3008E |

## VG7000 Series Brass Trim Globe Valves with V-3000 Pneumatic Actuators (Continued)

### VG7000 Series Valve Assemblies with V-3000-8012 Exposed Pneumatic Actuators (Part 3 of 3)

| Actuator Code                                                                                                                                                       |                 | V-3000-8012 |           |                |           |                |           |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-----------|----------------|-----------|----------------|-----------|----------------|
| Mounting Kit                                                                                                                                                        | 1/2 and 3/4 in. | VG7000-1001 |           | VG7000-1002    |           | VG7000-1003    |           |                |
|                                                                                                                                                                     | 1 and 1-1/4 in. | VG7000-1004 |           | VG7000-1005    |           | VG7000-1006    |           |                |
|                                                                                                                                                                     | 1-1/2 and 2 in. | VG7000-1007 |           | VG7000-1008    |           | VG7000-1009    |           |                |
| Spring Range                                                                                                                                                        |                 | 3 to 6 psig |           | 4 to 8 psig    |           | 9 to 13 psig   |           |                |
| Valve                                                                                                                                                               | Size, in.       | Cv          | Closeoff  | Code Number    | Closeoff  | Code Number    | Closeoff  | Code Number    |
| VG7291GT                                                                                                                                                            | 1/2             | 4.6         | 225       | VG7291GT+3008B | 192       | VG7291GT+3008D | 108       | VG7291GT+3008E |
| <b>Two-Way Normally Closed – 3/4 in. Union Sweat End Connections</b><br>(To specify a factory-mounted pneumatic positioner, add a P to the end of the code number.) |                 |             |           |                |           |                |           |                |
| VG7491CT                                                                                                                                                            | 1/2             | 0.73        | 100       | VG7491CT+3008B | 142       | VG7491CT+3008D | 348       | VG7491CT+3008E |
| VG7491ET                                                                                                                                                            | 1/2             | 1.8         | 100       | VG7491ET+3008B | 142       | VG7491ET+3008D | 348       | VG7491ET+3008E |
| VG7491GT                                                                                                                                                            | 1/2             | 4.6         | 49        | VG7491GT+3008B | 68        | VG7491GT+3008D | 168       | VG7491GT+3008E |
| <b>Three-Way Mixing – 3/4 in. Union Sweat End Connections</b><br>(To specify a factory-mounted pneumatic positioner, add a P to the end of the code number.)        |                 |             |           |                |           |                |           |                |
| VG7892CT                                                                                                                                                            | 1/2             | 0.73        | 365 / 100 | VG7892CT+3008B | 339 / 142 | VG7892CT+3008D | 191 / 348 | VG7892CT+3008E |
| VG7892ET                                                                                                                                                            | 1/2             | 1.8         | 365 / 100 | VG7892ET+3008B | 339 / 142 | VG7892ET+3008D | 191 / 348 | VG7892ET+3008E |
| VG7892GT                                                                                                                                                            | 1/2             | 4.6         | 225 / 49  | VG7892GT+3008B | 192 / 68  | VG7892GT+3008D | 108 / 168 | VG7892GT+3008E |
| <b>Two-Way Normally Open – Union Globe End Connections (No Positioner Option Available)</b>                                                                         |                 |             |           |                |           |                |           |                |
| VG7251CT                                                                                                                                                            | 1/2             | 0.73        | 365       | VG7251CT+3008B | 339       | VG7251CT+3008D | 191       | VG7251CT+3008E |
| VG7251ET                                                                                                                                                            | 1/2             | 1.8         | 365       | VG7251ET+3008B | 339       | VG7251ET+3008D | 191       | VG7251ET+3008E |
| VG7251GT                                                                                                                                                            | 1/2             | 4.6         | 225       | VG7251GT+3008B | 192       | VG7251GT+3008D | 108       | VG7251GT+3008E |
| VG7251LT                                                                                                                                                            | 3/4             | 7.3         | 144       | VG7251LT+3008B | 122       | VG7251LT+3008D | 69        | VG7251LT+3008E |
| VG7251NT                                                                                                                                                            | 1               | 11.6        | 90        | VG7251NT+3008B | 76        | VG7251NT+3008D | 42        | VG7251NT+3008E |
| VG7251PT                                                                                                                                                            | 1-1/4           | 18.5        | 55        | VG7251PT+3008B | 47        | VG7251PT+3008D | 26        | VG7251PT+3008E |
| VG7251RT                                                                                                                                                            | 1-1/2           | 28.9        | 35        | VG7251RT+3008B | 30        | VG7251RT+3008D | 16        | VG7251RT+3008E |
| <b>Two-Way Normally Closed – Union Globe End Connections (No Positioner Option Available)</b>                                                                       |                 |             |           |                |           |                |           |                |
| VG7451CT                                                                                                                                                            | 1/2             | 0.73        | 100       | VG7451CT+3008B | 142       | VG7451CT+3008D | 348       | VG7451CT+3008E |
| VG7451ET                                                                                                                                                            | 1/2             | 1.8         | 100       | VG7451ET+3008B | 142       | VG7451ET+3008D | 348       | VG7451ET+3008E |
| VG7451GT                                                                                                                                                            | 1/2             | 4.6         | 49        | VG7451GT+3008B | 68        | VG7451GT+3008D | 168       | VG7451GT+3008E |
| <b>Two-Way Normally Open – Union Angle End Connections (No Positioner Option Available)</b>                                                                         |                 |             |           |                |           |                |           |                |
| VG7551CT                                                                                                                                                            | 1/2             | 0.73        | 365       | VG7551CT+3008B | 339       | VG7551CT+3008D | 191       | VG7551CT+3008E |
| VG7551ET                                                                                                                                                            | 1/2             | 1.8         | 365       | VG7551ET+3008B | 339       | VG7551ET+3008D | 191       | VG7551ET+3008E |
| VG7551GT                                                                                                                                                            | 1/2             | 4.6         | 225       | VG7551GT+3008B | 192       | VG7551GT+3008D | 108       | VG7551GT+3008E |
| VG7551LT                                                                                                                                                            | 3/4             | 7.3         | 144       | VG7551LT+3008B | 122       | VG7551LT+3008D | 69        | VG7551LT+3008E |
| VG7551NT                                                                                                                                                            | 1               | 11.6        | 90        | VG7551NT+3008B | 76        | VG7551NT+3008D | 42        | VG7551NT+3008E |
| VG7551PT                                                                                                                                                            | 1-1/4           | 18.5        | 55        | VG7551PT+3008B | 47        | VG7551PT+3008D | 26        | VG7551PT+3008E |
| VG7551RT                                                                                                                                                            | 1-1/2           | 28.9        | 35        | VG7551RT+3008B | 30        | VG7551RT+3008D | 16        | VG7551RT+3008E |

### VG7000 Series Valve Assemblies with V-3000-8003 Enclosed Pneumatic Actuators (Part 1 of 3)

| Actuator Code                                        |                 | V-3000-8003 |          |                |          |                |          |                |
|------------------------------------------------------|-----------------|-------------|----------|----------------|----------|----------------|----------|----------------|
| Mounting Kit                                         | 1/2 and 3/4 in. | VG7000-1001 |          | VG7000-1002    |          | VG7000-1003    |          |                |
|                                                      | 1 and 1-1/4 in. | VG7000-1004 |          | VG7000-1005    |          | VG7000-1006    |          |                |
|                                                      | 1-1/2 and 2 in. | VG7000-1007 |          | VG7000-1008    |          | VG7000-1009    |          |                |
| Spring Range                                         |                 | 3 to 6 psig |          | 4 to 8 psig    |          | 9 to 13 psig   |          |                |
| Valve                                                | Size, in.       | Cv          | Closeoff | Code Number    | Closeoff | Code Number    | Closeoff | Code Number    |
| <b>Two-Way Normally Open – NPT End Connections</b>   |                 |             |          |                |          |                |          |                |
| VG7241CT                                             | 1/2             | 0.73        | 365      | VG7241CT+3003B | 339      | VG7241CT+3003D | 191      | VG7241CT+3003E |
| VG7241ET                                             | 1/2             | 1.8         | 365      | VG7241ET+3003B | 339      | VG7241ET+3003D | 191      | VG7241ET+3003E |
| VG7241GT                                             | 1/2             | 4.6         | 225      | VG7241GT+3003B | 192      | VG7241GT+3003D | 108      | VG7241GT+3003E |
| VG7241LT                                             | 3/4             | 7.3         | 144      | VG7241LT+3003B | 122      | VG7241LT+3003D | 69       | VG7241LT+3003E |
| VG7241NT                                             | 1               | 11.6        | 90       | VG7241NT+3003B | 76       | VG7241NT+3003D | 42       | VG7241NT+3003E |
| VG7241PT                                             | 1-1/4           | 18.5        | 55       | VG7241PT+3003B | 47       | VG7241PT+3003D | 26       | VG7241PT+3003E |
| VG7241RT                                             | 1-1/2           | 28.9        | 35       | VG7241RT+3003B | 30       | VG7241RT+3003D | 16       | VG7241RT+3003E |
| VG7241ST                                             | 2               | 46.2        | 22       | VG7241ST+3003B | 19       | VG7241ST+3003D | 11       | VG7241ST+3003E |
| <b>Two-Way Normally Closed – NPT End Connections</b> |                 |             |          |                |          |                |          |                |
| VG7441CT                                             | 1/2             | 0.73        | 100      | VG7441CT+3003B | 142      | VG7441CT+3003D | 348      | VG7441CT+3003E |
| VG7441ET                                             | 1/2             | 1.8         | 100      | VG7441ET+3003B | 142      | VG7441ET+3003D | 348      | VG7441ET+3003E |
| VG7441GT                                             | 1/2             | 4.6         | 49       | VG7441GT+3003B | 68       | VG7441GT+3003D | 168      | VG7441GT+3003E |

## VG7000 Series Brass Trim Globe Valves with V-3000 Pneumatic Actuators (Continued)

### VG7000 Series Valve Assemblies with V-3000-8003 Enclosed Pneumatic Actuators (Part 2 of 3)

| Actuator Code                                                        |                 |             | V-3000-8003 |                |             |                |              |                |
|----------------------------------------------------------------------|-----------------|-------------|-------------|----------------|-------------|----------------|--------------|----------------|
| Mounting Kit                                                         | 1/2 and 3/4 in. | VG7000-1001 |             | VG7000-1002    |             | VG7000-1003    |              |                |
|                                                                      | 1 and 1-1/4 in. | VG7000-1004 |             | VG7000-1005    |             | VG7000-1006    |              |                |
|                                                                      | 1-1/2 and 2 in. | VG7000-1007 |             | VG7000-1008    |             | VG7000-1009    |              |                |
| Spring Range                                                         |                 |             | 3 to 6 psig |                | 4 to 8 psig |                | 9 to 13 psig |                |
| Valve                                                                | Size, in.       | Cv          | Closeoff    | Code Number    | Closeoff    | Code Number    | Closeoff     | Code Number    |
| VG7441LT                                                             | 3/4             | 7.3         | 29          | VG7441LT+3003B | 41          | VG7441LT+3003D | 100          | VG7441LT+3003E |
| VG7441NT                                                             | 1               | 11.6        | 17          | VG7441NT+3003B | 25          | VG7441NT+3003D | 65           | VG7441NT+3003E |
| VG7441PT                                                             | 1-1/4           | 18.5        | 10          | VG7441PT+3003B | 14          | VG7441PT+3003D | 37           | VG7441PT+3003E |
| VG7441RT                                                             | 1-1/2           | 28.9        | 6           | VG7441RT+3003B | 9           | VG7441RT+3003D | 23           | VG7441RT+3003E |
| VG7441ST                                                             | 2               | 46.2        | 4           | VG7441ST+3003B | 6           | VG7441ST+3003D | 14           | VG7441ST+3003E |
| <b>Three-Way Mixing – NPT End Connections</b>                        |                 |             |             |                |             |                |              |                |
| VG7842CT                                                             | 1/2             | 0.73        | 365 / 100   | VG7842CT+3003B | 339 / 142   | VG7842CT+3003D | 191 / 348    | VG7842CT+3003E |
| VG7842ET                                                             | 1/2             | 1.8         | 365 / 100   | VG7842ET+3003B | 339 / 142   | VG7842ET+3003D | 191 / 348    | VG7842ET+3003E |
| VG7842GT                                                             | 1/2             | 4.6         | 225 / 49    | VG7842GT+3003B | 192 / 68    | VG7842GT+3003D | 108 / 168    | VG7842GT+3003E |
| VG7842LT                                                             | 3/4             | 7.3         | 144 / 29    | VG7842LT+3003B | 122 / 41    | VG7842LT+3003D | 69 / 100     | VG7842LT+3003E |
| VG7842NT                                                             | 1               | 11.6        | 90 / 17     | VG7842NT+3003B | 76 / 25     | VG7842NT+3003D | 42 / 65      | VG7842NT+3003E |
| VG7842PT                                                             | 1-1/4           | 18.5        | 55 / 10     | VG7842PT+3003B | 47 / 14     | VG7842PT+3003D | 26 / 37      | VG7842PT+3003E |
| VG7842RT                                                             | 1-1/2           | 28.9        | 35 / 6      | VG7842RT+3003B | 30 / 9      | VG7842RT+3003D | 16 / 23      | VG7842RT+3003E |
| VG7842ST                                                             | 2               | 46.2        | 22 / 4      | VG7842ST+3003B | 19 / 6      | VG7842ST+3003D | 11 / 14      | VG7842ST+3003E |
| <b>Two-Way Normally Open – Union Sweat End Connections</b>           |                 |             |             |                |             |                |              |                |
| VG7281CT                                                             | 1/2             | 0.73        | 365         | VG7281CT+3003B | 339         | VG7281CT+3003D | 191          | VG7281CT+3003E |
| VG7281ET                                                             | 1/2             | 1.8         | 365         | VG7281ET+3003B | 339         | VG7281ET+3003D | 191          | VG7281ET+3003E |
| VG7281GT                                                             | 1/2             | 4.6         | 225         | VG7281GT+3003B | 192         | VG7281GT+3003D | 108          | VG7281GT+3003E |
| VG7281LT                                                             | 3/4             | 7.3         | 144         | VG7281LT+3003B | 122         | VG7281LT+3003D | 69           | VG7281LT+3003E |
| VG7281NT                                                             | 1               | 11.6        | 90          | VG7281NT+3003B | 76          | VG7281NT+3003D | 42           | VG7281NT+3003E |
| VG7281PT                                                             | 1-1/4           | 18.5        | 55          | VG7281PT+3003B | 47          | VG7281PT+3003D | 26           | VG7281PT+3003E |
| VG7281RT                                                             | 1-1/2           | 28.9        | 35          | VG7281RT+3003B | 30          | VG7281RT+3003D | 16           | VG7281RT+3003E |
| VG7281ST                                                             | 2               | 46.2        | 22          | VG7281ST+3003B | 19          | VG7281ST+3003D | 11           | VG7281ST+3003E |
| <b>Two-Way Normally Closed – Union Sweat End Connections</b>         |                 |             |             |                |             |                |              |                |
| VG7481CT                                                             | 1/2             | 0.73        | 100         | VG7481CT+3003B | 142         | VG7481CT+3003D | 348          | VG7481CT+3003E |
| VG7481ET                                                             | 1/2             | 1.8         | 100         | VG7481ET+3003B | 142         | VG7481ET+3003D | 348          | VG7481ET+3003E |
| VG7481GT                                                             | 1/2             | 4.6         | 49          | VG7481GT+3003B | 68          | VG7481GT+3003D | 168          | VG7481GT+3003E |
| VG7481LT                                                             | 3/4             | 7.3         | 29          | VG7481LT+3003B | 41          | VG7481LT+3003D | 100          | VG7481LT+3003E |
| VG7481NT                                                             | 1               | 11.6        | 17          | VG7481NT+3003B | 25          | VG7481NT+3003D | 65           | VG7481NT+3003E |
| VG7481PT                                                             | 1-1/4           | 18.5        | 10          | VG7481PT+3003B | 14          | VG7481PT+3003D | 37           | VG7481PT+3003E |
| VG7481RT                                                             | 1-1/2           | 28.9        | 6           | VG7481RT+3003B | 9           | VG7481RT+3003D | 23           | VG7481RT+3003E |
| VG7481ST                                                             | 2               | 46.2        | 4           | VG7481ST+3003B | 6           | VG7481ST+3003D | 14           | VG7481ST+3003E |
| <b>Three-Way Mixing – Union Sweat End Connections</b>                |                 |             |             |                |             |                |              |                |
| VG7882CT                                                             | 1/2             | 0.73        | 365 / 100   | VG7882CT+3003B | 339 / 142   | VG7882CT+3003D | 191 / 348    | VG7882CT+3003E |
| VG7882ET                                                             | 1/2             | 1.8         | 365 / 100   | VG7882ET+3003B | 339 / 142   | VG7882ET+3003D | 191 / 348    | VG7882ET+3003E |
| VG7882GT                                                             | 1/2             | 4.6         | 225 / 49    | VG7882GT+3003B | 192 / 68    | VG7882GT+3003D | 108 / 168    | VG7882GT+3003E |
| VG7882LT                                                             | 3/4             | 7.3         | 144 / 29    | VG7882LT+3003B | 122 / 41    | VG7882LT+3003D | 69 / 100     | VG7882LT+3003E |
| VG7882NT                                                             | 1               | 11.6        | 90 / 17     | VG7882NT+3003B | 76 / 25     | VG7882NT+3003D | 42 / 65      | VG7882NT+3003E |
| VG7882PT                                                             | 1-1/4           | 18.5        | 55 / 10     | VG7882PT+3003B | 47 / 14     | VG7882PT+3003D | 26 / 37      | VG7882PT+3003E |
| VG7882RT                                                             | 1-1/2           | 28.9        | 35 / 6      | VG7882RT+3003B | 30 / 9      | VG7882RT+3003D | 16 / 23      | VG7882RT+3003E |
| VG7882ST                                                             | 2               | 46.2        | 22 / 4      | VG7882ST+3003B | 19 / 6      | VG7882ST+3003D | 11 / 14      | VG7882ST+3003E |
| <b>Two-Way Normally Open – 3/8 in. Union Sweat End Connections</b>   |                 |             |             |                |             |                |              |                |
| VG7271CT                                                             | 1/2             | 0.73        | 365         | VG7271CT+3003B | 339         | VG7271CT+3003D | 191          | VG7271CT+3003E |
| VG7271ET                                                             | 1/2             | 1.8         | 365         | VG7271ET+3003B | 339         | VG7271ET+3003D | 191          | VG7271ET+3003E |
| VG7271GT                                                             | 1/2             | 4.6         | 225         | VG7271GT+3003B | 192         | VG7271GT+3003D | 108          | VG7271GT+3003E |
| <b>Two-Way Normally Closed – 3/8 in. Union Sweat End Connections</b> |                 |             |             |                |             |                |              |                |
| VG7471CT                                                             | 1/2             | 0.73        | 100         | VG7471CT+3003B | 142         | VG7471CT+3003D | 348          | VG7471CT+3003E |
| VG7471ET                                                             | 1/2             | 1.8         | 100         | VG7471ET+3003B | 142         | VG7471ET+3003D | 348          | VG7471ET+3003E |
| VG7471GT                                                             | 1/2             | 4.6         | 49          | VG7471GT+3003B | 68          | VG7471GT+3003D | 168          | VG7471GT+3003E |
| <b>Three-Way Mixing – 3/8 in. Union Sweat End Connections</b>        |                 |             |             |                |             |                |              |                |
| VG7872CT                                                             | 1/2             | 0.73        | 365 / 100   | VG7872CT+3003B | 339 / 142   | VG7872CT+3003D | 191 / 348    | VG7872CT+3003E |

## VG7000 Series Brass Trim Globe Valves with V-3000 Pneumatic Actuators (Continued)

### VG7000 Series Valve Assemblies with V-3000-8003 Enclosed Pneumatic Actuators (Part 3 of 3)

| Actuator Code                                                 |                 |      | V-3000-8003 |                |             |                |              |                |
|---------------------------------------------------------------|-----------------|------|-------------|----------------|-------------|----------------|--------------|----------------|
| Mounting Kit                                                  | 1/2 and 3/4 in. |      | VG7000-1001 |                | VG7000-1002 |                | VG7000-1003  |                |
|                                                               | 1 and 1-1/4 in. |      | VG7000-1004 |                | VG7000-1005 |                | VG7000-1006  |                |
|                                                               | 1-1/2 and 2 in. |      | VG7000-1007 |                | VG7000-1008 |                | VG7000-1009  |                |
| Spring Range                                                  |                 |      | 3 to 6 psig |                | 4 to 8 psig |                | 9 to 13 psig |                |
| Valve                                                         | Size, in.       | Cv   | Closeoff    | Code Number    | Closeoff    | Code Number    | Closeoff     | Code Number    |
| VG7872ET                                                      | 1/2             | 1.8  | 365 / 100   | VG7872ET+3003B | 339 / 142   | VG7872ET+3003D | 191 / 348    | VG7872ET+3003E |
| VG7872GT                                                      | 1/2             | 4.6  | 225 / 49    | VG7872GT+3003B | 192 / 68    | VG7872GT+3003D | 108 / 168    | VG7872GT+3003E |
| Two-Way Normally Open – 3/4 in. Union Sweat End Connections   |                 |      |             |                |             |                |              |                |
| VG7291CT                                                      | 1/2             | 0.73 | 365         | VG7291CT+3003B | 339         | VG7291CT+3003D | 191          | VG7291CT+3003E |
| VG7291ET                                                      | 1/2             | 1.8  | 365         | VG7291ET+3003B | 339         | VG7291ET+3003D | 191          | VG7291ET+3003E |
| VG7291GT                                                      | 1/2             | 4.6  | 225         | VG7291GT+3003B | 192         | VG7291GT+3003D | 108          | VG7291GT+3003E |
| Two-Way Normally Closed – 3/4 in. Union Sweat End Connections |                 |      |             |                |             |                |              |                |
| VG7491CT                                                      | 1/2             | 0.73 | 100         | VG7491CT+3003B | 142         | VG7491CT+3003D | 348          | VG7491CT+3003E |
| VG7491ET                                                      | 1/2             | 1.8  | 100         | VG7491ET+3003B | 142         | VG7491ET+3003D | 348          | VG7491ET+3003E |
| VG7491GT                                                      | 1/2             | 4.6  | 49          | VG7491GT+3003B | 68          | VG7491GT+3003D | 168          | VG7491GT+3003E |
| Three-Way Mixing – 3/4 in. Union Sweat End Connections        |                 |      |             |                |             |                |              |                |
| VG7892CT                                                      | 1/2             | 0.73 | 365 / 100   | VG7892CT+3003B | 339 / 142   | VG7892CT+3003D | 191 / 348    | VG7892CT+3003E |
| VG7892ET                                                      | 1/2             | 1.8  | 365 / 100   | VG7892ET+3003B | 339 / 142   | VG7892ET+3003D | 191 / 348    | VG7892ET+3003E |
| VG7892GT                                                      | 1/2             | 4.6  | 225 / 49    | VG7892GT+3003B | 192 / 68    | VG7892GT+3003D | 108 / 168    | VG7892GT+3003E |
| Two-Way Normally Open – Union Globe End Connections           |                 |      |             |                |             |                |              |                |
| VG7251CT                                                      | 1/2             | 0.73 | 365         | VG7251CT+3003B | 339         | VG7251CT+3003D | 191          | VG7251CT+3003E |
| VG7251ET                                                      | 1/2             | 1.8  | 365         | VG7251ET+3003B | 339         | VG7251ET+3003D | 191          | VG7251ET+3003E |
| VG7251GT                                                      | 1/2             | 4.6  | 225         | VG7251GT+3003B | 192         | VG7251GT+3003D | 108          | VG7251GT+3003E |
| VG7251LT                                                      | 3/4             | 7.3  | 144         | VG7251LT+3003B | 122         | VG7251LT+3003D | 69           | VG7251LT+3003E |
| VG7251NT                                                      | 1               | 11.6 | 90          | VG7251NT+3003B | 76          | VG7251NT+3003D | 42           | VG7251NT+3003E |
| VG7251PT                                                      | 1-1/4           | 18.5 | 55          | VG7251PT+3003B | 47          | VG7251PT+3003D | 26           | VG7251PT+3003E |
| VG7251RT                                                      | 1-1/2           | 28.9 | 35          | VG7251RT+3003B | 30          | VG7251RT+3003D | 16           | VG7251RT+3003E |
| Two-Way Normally Closed – Union Globe End Connections         |                 |      |             |                |             |                |              |                |
| VG7451CT                                                      | 1/2             | 0.73 | 100         | VG7451CT+3003B | 142         | VG7451CT+3003D | 348          | VG7451CT+3003E |
| VG7451ET                                                      | 1/2             | 1.8  | 100         | VG7451ET+3003B | 142         | VG7451ET+3003D | 348          | VG7451ET+3003E |
| VG7451GT                                                      | 1/2             | 4.6  | 49          | VG7451GT+3003B | 68          | VG7451GT+3003D | 168          | VG7451GT+3003E |
| Two-Way Normally Open – Union Angle End Connections           |                 |      |             |                |             |                |              |                |
| VG7551CT                                                      | 1/2             | 0.73 | 365         | VG7551CT+3003B | 339         | VG7551CT+3003D | 191          | VG7551CT+3003E |
| VG7551ET                                                      | 1/2             | 1.8  | 365         | VG7551ET+3003B | 339         | VG7551ET+3003D | 191          | VG7551ET+3003E |
| VG7551GT                                                      | 1/2             | 4.6  | 225         | VG7551GT+3003B | 192         | VG7551GT+3003D | 108          | VG7551GT+3003E |
| VG7551LT                                                      | 3/4             | 7.3  | 144         | VG7551LT+3003B | 122         | VG7551LT+3003D | 69           | VG7551LT+3003E |
| VG7551NT                                                      | 1               | 11.6 | 90          | VG7551NT+3003B | 76          | VG7551NT+3003D | 42           | VG7551NT+3003E |
| VG7551PT                                                      | 1-1/4           | 18.5 | 55          | VG7551PT+3003B | 47          | VG7551PT+3003D | 26           | VG7551PT+3003E |
| VG7551RT                                                      | 1-1/2           | 28.9 | 35          | VG7551RT+3003B | 30          | VG7551RT+3003D | 16           | VG7551RT+3003E |

## Technical Specifications

| VG7000 Brass Trim Globe Valves with V-3000 Pneumatic Actuators (Part 1 of 2) |                         |                                                                                                    |
|------------------------------------------------------------------------------|-------------------------|----------------------------------------------------------------------------------------------------|
| <b>Service<sup>1</sup></b>                                                   |                         | Hot Water, Chill Water, 50/50 Glycol Solutions and Steam for HVAC Systems                          |
| <b>Fluid Temperature Limits</b>                                              | <b>Water</b>            | 35 to 248°F (2 to 120°C) for V-3000-8003<br>35 to 284°F (2 to 140°C) for V-3000-8011               |
|                                                                              | <b>Steam</b>            | 38 psig (262 kPa) Saturated Steam                                                                  |
| <b>Maximum Allowable Pressure Temperature</b>                                | <b>Water</b>            | 400 psig (2,756 kPa) Up to 150°F (66°C) decreasing to 365 psig (2,515 kPa) at 248°F (120°C)        |
|                                                                              | <b>Steam</b>            | 38 psig (262 kPa) Saturated Steam at 284°F (140°C)                                                 |
| <b>Valve Body Pressure/ Temperature Rating</b>                               |                         | Meets Requirements of ANSI B16.15, Class 250                                                       |
| <b>Maximum Recommended Operating Pressure Drop</b>                           | <b>Water</b>            | 35 psig (241 kPa) for 1/2 through 1-1/4 in. valves<br>30 psig (207 kPa) for 1-1/2 and 2 in. valves |
|                                                                              | <b>Steam</b>            | 15 psig (103 kPa)                                                                                  |
| <b>Flow Characteristics</b>                                                  | <b>Two-Way Valves</b>   | Equal Percentage                                                                                   |
|                                                                              | <b>Three-Way Valves</b> | Linear Flow Characteristics                                                                        |
| <b>Rangeability<sup>2</sup></b>                                              |                         | 25:1                                                                                               |
| <b>Leakage</b>                                                               |                         | 0.01% of Maximum Flow per ANSI/FCI 70-2, Class 4                                                   |

## VG7000 Series Brass Trim Globe Valves with V-3000 Pneumatic Actuators (Continued)

| VG7000 Brass Trim Globe Valves with V-3000 Pneumatic Actuators (Part 2 of 2) |         |                                                                 |
|------------------------------------------------------------------------------|---------|-----------------------------------------------------------------|
| Actuator Ambient Operating Temperature Limits                                |         | -20 to 150°F (-29 to 66°C)                                      |
| Maximum Actuator Supply Pressure                                             |         | 25 psig (172 kPa) Maximum                                       |
| Materials                                                                    | Body    | Cast Bronze                                                     |
|                                                                              | Bonnet  | Brass                                                           |
|                                                                              | Stem    | Stainless Steel                                                 |
|                                                                              | Plug    | Brass                                                           |
|                                                                              | Seat    | Brass Against Molded Elastomeric Disk                           |
|                                                                              | Packing | Self Adjusting Ethylene Propylene Rubber (EPR) Ring Pack U-Cups |

1. Refer to VDI 2035 Standard for recommended proper water treatment.
2. Rangeability is defined as the ratio of maximum controllable flow to minimum controllable flow.