

VG2x31 Series

# Pneumatic Cast Iron Flanged Globe Valves

## VG2231 Series Two-Way Normally Open



**MP8000 Series Actuators Mounted to VG2231 Two-Way Normally Open Valves**

### VG2231 Valve

- controls – hot or chilled water, 35 psig saturated steam
- ANSI cast iron 125 flange – meets ANSI B16.1
- ANSI III closeoff, leakage: 0.1% of maximum flow
- 175 psig static pressure rating – water temperatures 35 to 150°F; decreasing to 125 psig at 281°F

- maximum recommended operating pressure drop: 35 psig
- maximum actuator supply pressure: 25 psig
- inherent flow characteristics: modified linear
- packing – EPT ring packs, field replaceable
- bronze seat and plug, stainless steel stem – field replaceable
- disk – stainless steel filled PTFE

### MP8000 Series Actuators

- direct coupled – field or factory mounted
- three sizes – 25, 50, and 100 sq in. effective diaphragm area
- rugged, industrial-grade steel construction
- spring action field reversible
- optional pneumatic or electro-pneumatic positioner

For complete details, refer to Product/Technical Bulletin LIT-977133.

### To Order

Specify the code number from the selection chart.

### Selection Chart

| Spring Range   |        |     | 3 to 7 psig |                 | 4 to 8 psig |                 | 9 to 13 psig |                 |
|--|--------|-----|-------------|-----------------|-------------|-----------------|--------------|-----------------|
| Valve  | Size   | Cv  | Closeoff    | Code Number     | Closeoff    | Code Number     | Closeoff     | Code Number     |
| <b>MP82 Series Actuators – 25 sq in. Effective Diaphragm Area</b>  |        |     |             |                 |             |                 |              |                 |
| VG2231TL   | 2-1/2" | 51  | 53          | VG2231TL+823C00 | 49          | VG2231TL+823D00 | 28           | VG2231TL+823E00 |
| VG2231UL   | 3"     | 83  | 37          | VG2231UL+823C00 | 34          | VG2231UL+823D00 | 19           | VG2231UL+823E00 |
| <b>MP84 Series Actuators – 50 sq in. Effective Diaphragm Area</b>  |        |     |             |                 |             |                 |              |                 |
| VG2231TM   | 2-1/2" | 51  | 109         | VG2231TM+843C00 | 100         | VG2231TM+843D00 | 58           | VG2231TM+843E00 |
| VG2231UM   | 3"     | 83  | 75          | VG2231UM+845C00 | 70          | VG2231UM+845D00 | 40           | VG2231UM+845E00 |
| VG2231VM   | 4"     | 150 | 42          | VG2231VM+845C00 | 39          | VG2231VM+845D00 | 23           | VG2231VM+845E00 |
| <b>MP86 Series Actuators – 100 sq in. Effective Diaphragm Area</b> |        |     |             |                 |             |                 |              |                 |
| VG2231UN   | 3"     | 83  | 152         | VG2231UN+865C00 | 140         | VG2231UN+865D00 | 81           | VG2231UN+865E00 |
| VG2231VN   | 4"     | 150 | 86          | VG2231VN+865C00 | 79          | VG2231VN+865D00 | 46           | VG2231VN+865E00 |
| VG2231WN   | 5"     | 240 | 55          | VG2231WN+867C00 | 51          | VG2231WN+867D00 | 29           | VG2231WN+867E00 |
| VG2231YN   | 6"     | 350 | 38          | VG2231YN+867C00 | 35          | VG2231YN+867D00 | 20           | VG2231YN+867E00 |

**Optional Positioner – Change the "00" at the end of the code number to either "01" or "02"**

| Optional Positioner | Mounting Bracket | Type              | Control Input                                  | Output Capacity  | Ordering Code |
|---------------------|------------------|-------------------|--|--|---------------|
| V-9502-95           | MP8000-6002      | Pneumatic         | 2 to 12 psig Start<br>3 to 13 psig Span        | 1,000 scim – Dual Barbed Fitting<br>1,600 scim – 1/4" Barbed Fitting | "01"          |
| EPP-1000-8          | MP8000-6003      | Electro-Pneumatic | 0 to 10 VDC<br>4 to 20 mA<br>135 ohm Slidewire | 476 scim   | "02"          |

## VG2x31 Series Pneumatic Cast Iron Flanged Globe Valves (Continued)

### VG2431 Series Two-Way Normally Closed



**MP8000 Series Actuators Mounted to VG2431 Two-Way Normally Closed Valves**

#### VG2431 Valve

- controls – hot or chilled water, 35 psig saturated steam
- ANSI cast iron 125 flange – meets ANSI B16.1
- ANSI III closeoff, leakage: 0.1% of maximum flow
- 175 psig static pressure rating – water temperatures 35 to 150°F; decreasing to 125 psig at 281°F

- maximum recommended operating pressure drop: 35 psig
- maximum actuator supply pressure: 25 psig
- inherent flow characteristics: modified linear
- packing – EPT ring packs, field replaceable
- bronze seat and plug, stainless steel stem – field replaceable
- disk – stainless steel filled PTFE

#### MP8000 Series Actuators

- direct coupled – field or factory mounted
- two sizes – 50 and 100 sq in. effective diaphragm area
- rugged, industrial-grade steel construction
- spring action field reversible
- optional pneumatic or electro-pneumatic positioner

For complete details, refer to Product/Technical Bulletin LIT-977133.

#### To Order

Specify the code number from the selection chart.

#### Selection Chart

| Spring Range   |        |     | 3 to 7 psig |                        | 4 to 8 psig |                        | 9 to 13 psig |                        |
|--|--------|-----|-------------|------------------------|-------------|------------------------|--------------|------------------------|
| Valve  | Size   | Cv  | Closeoff    | Code Number            | Closeoff    | Code Number            | Closeoff     | Code Number            |
| <b>MP84 Series Actuators – 50 sq in. Effective Diaphragm Area</b>  |        |     |             |                        |             |                        |              |                        |
| VG2431TM   | 2-1/2" | 54  | 24          | <b>VG2431TM+843C00</b> | 32          | <b>VG2431TM+843D00</b> | 75           | <b>VG2431TM+843E00</b> |
| VG2431UM   | 3"     | 83  | 17          | <b>VG2431UM+845C00</b> | 22          | <b>VG2431UM+845D00</b> | 52           | <b>VG2431UM+845E00</b> |
| VG2431VM   | 4"     | 150 | 9           | <b>VG2431VM+845C00</b> | 13          | <b>VG2431VM+845D00</b> | 29           | <b>VG2431VM+845E00</b> |
| <b>MP86 Series Actuators – 100 sq in. Effective Diaphragm Area</b> |        |     |             |                        |             |                        |              |                        |
| VG2431UN   | 3"     | 83  | 34          | <b>VG2431UN+865C00</b> | 46          | <b>VG2431UN+865D00</b> | 105          | <b>VG2431UN+865E00</b> |
| VG2431VN   | 4"     | 150 | 19          | <b>VG2431VN+865C00</b> | 26          | <b>VG2431VN+865D00</b> | 59           | <b>VG2431VN+865E00</b> |
| VG2431WN   | 5"     | 237 | 12          | <b>VG2431WN+867C00</b> | 17          | <b>VG2431WN+867D00</b> | 38           | <b>VG2431WN+867E00</b> |
| VG2431YN   | 6"     | 344 | 9           | <b>VG2431YN+867C00</b> | 11          | <b>VG2431YN+867D00</b> | 26           | <b>VG2431YN+867E00</b> |

#### Optional Positioner – Change the “00” at the end of the code number to either “01” or “02”

| Optional Positioner | Mounting Bracket   | Type              | Control Input                                  | Output Capacity  | Ordering Code |
|---------------------|--------------------|-------------------|--|--|---------------|
| <b>V-9502-95</b>    | <b>MP8000-6002</b> | Pneumatic         | 2 to 12 psig Start<br>3 to 13 psig Span        | 1,000 scim – Dual Barbed Fitting<br>1,600 scim – 1/4" Barbed Fitting | “01”          |
| <b>EPP-1000-8</b>   | <b>MP8000-6003</b> | Electro-Pneumatic | 0 to 10 VDC<br>4 to 20 mA<br>135 ohm Slidewire | 476 scim   | “02”          |

## VG2x31 Series Pneumatic Cast Iron Flanged Globe Valves (Continued)

### VG2831 Series Three-Way Mixing



**MP8000 Series Actuators Mounted to VG2831 Three-Way Mixing Valves**

#### VG2831 Valve

- controls – hot or chilled water
- ANSI cast iron 125 flange – meets ANSI B16.1
- ANSI III closeoff, leakage: 0.1% of maximum flow
- 175 psig static pressure rating – water temperatures 35 to 150°F; decreasing to 125 psig at 281°F
- maximum recommended operating pressure drop: 35 psig

- maximum actuator supply pressure: 25 psig
- inherent flow characteristics: modified linear
- packing – EPT ring packs, field replaceable
- bronze seat and plug, stainless steel stem – field replaceable
- disk – metal-to-metal

#### MP8000 Series Actuators

- direct coupled – field or factory mounted
- two sizes – 50 and 100 sq in. effective diaphragm area
- rugged, industrial-grade steel construction
- spring action field reversible
- optional pneumatic or electro-pneumatic positioner

For complete details, refer to Product/Technical Bulletin LIT-977133.

#### To Order

Specify the code number from the selection chart.

#### Selection Chart

| Spring Range   |        |     | 3 to 7 psig |                        | 4 to 8 psig |                        | 9 to 13 psig |                         |
|--|--------|-----|-------------|------------------------|-------------|------------------------|--------------|-------------------------|
| Valve  | Size   | Cv  | Closeoff    | Code Number            | Closeoff    | Code Number            | Closeoff     | Code Number             |
| <b>MP84 Series Actuators – 50 sq in. Effective Diaphragm Area</b>  |        |     |             |                        |             |                        |              |                         |
| VG2831TM   | 2-1/2" | 54  | 65 / 14     | <b>VG2831TM+843C00</b> | 60 / 19     | <b>VG2831TM+843D00</b> | 35 / 45      | <b>VG2831TM+843 E00</b> |
| VG2831UM   | 3"     | 80  | 45 / 10     | <b>VG2831UM+845C00</b> | 42 / 13     | <b>VG2831UM+845D00</b> | 24 / 31      | <b>VG2831UM+845E00</b>  |
| VG2831VM   | 4"     | 157 | 25 / 6      | <b>VG2831VM+845C00</b> | 23 / 8      | <b>VG2831VM+845D00</b> | 14 / 18      | <b>VG2831VM+845E00</b>  |
| <b>MP86 Series Actuators – 100 sq in. Effective Diaphragm Area</b> |        |     |             |                        |             |                        |              |                         |
| VG2831UN   | 3"     | 80  | 91 / 21     | <b>VG2831UN+865C00</b> | 84 / 28     | <b>VG2831UN+865D00</b> | 49 / 63      | <b>VG2831UN+865E00</b>  |
| VG2831VN   | 4"     | 157 | 51 / 12     | <b>VG2831VN+865C00</b> | 47 / 16     | <b>VG2831VN+865D00</b> | 27 / 35      | <b>VG2831VN+865E00</b>  |
| VG2831WN   | 5"     | 238 | 33 / 7      | <b>VG2831WN+867C00</b> | 30 / 10     | <b>VG2831WN+867D00</b> | 18 / 23      | <b>VG2831WN+867E00</b>  |
| VG2831YN   | 6"     | 347 | 23 / 5      | <b>VG2831YN+867C00</b> | 21 / 7      | <b>VG2831YN+867D00</b> | 12 / 16      | <b>VG2831YN+867E00</b>  |

**Optional Positioner – Change the “00” at the end of the code number to either “01” or “02”**

| Optional Positioner | Mounting Bracket   | Type              | Control Input                                  | Output Capacity  | Ordering Code |
|---------------------|--------------------|-------------------|--|--|---------------|
| <b>V-9502-95</b>    | <b>MP8000-6002</b> | Pneumatic         | 2 to 12 psig Start<br>3 to 13 psig Span        | 1,000 scim – Dual Barbed Fitting<br>1,600 scim – 1/4" Barbed Fitting | “01”          |
| <b>EPP-1000-8</b>   | <b>MP8000-6003</b> | Electro-Pneumatic | 0 to 10 VDC<br>4 to 20 mA<br>135 ohm Slidewire | 476 scim   | “02”          |