

## Specifications

|                                                   |                                                             |
|---------------------------------------------------|-------------------------------------------------------------|
| Line Size                                         | 1/2 to 2-inch (15 to 50 mm)                                 |
| Body                                              | Globe style, UNS CA 844 bronze, ANSI Class 250              |
| Trim                                              | Bronze                                                      |
| Stem                                              | Stainless steel ASTM A582 Type 303, 3/4-inch (20-mm) stroke |
| Seat                                              | Single seat, metal-to-metal                                 |
| Packing                                           |                                                             |
| Normal duty                                       | Ethylene propylene O-ring                                   |
| Close-off Ratings                                 | According to ANSI/FCI 70-2                                  |
| Controlled Medium                                 | Water, steam, glycol solutions to 50%                       |
| Medium Temperature                                |                                                             |
| Normal Duty                                       | 20 to 250°F (-7 to +120°C)                                  |
| Max. Differential Pressure for Modulating Service |                                                             |
| Liquid                                            | 25 psi (173 kPa)                                            |
| Steam                                             | 15 psi (103 kPa)                                            |
| Rangeability                                      | >100:1                                                      |
| Leakage Rate                                      | Class IV (0.01% of Cv)                                      |
| Flow Characteristics                              | Equal Percentage                                            |
| Mounting Location                                 | NEMA 1 (interior only)                                      |

## Flowrite 599 Series Valve Bodies

|       | Flow Rate<br>Cv (Kvs) | Line Size<br>in. (mm) | Stroke (in.) | Normally<br>Open<br>Part No. | Normally<br>Closed<br>Part No. |
|-------|-----------------------|-----------------------|--------------|------------------------------|--------------------------------|
| 2-way | 1 (0.9)               | 1/2 (15)              | 3/4          | 599-03162                    | 599-03180                      |
|       | 1.6 (1.4)             | 1/2 (15)              | 3/4          | 599-03163                    | 599-03181                      |
|       | 2.5 (2.2)             | 1/2 (15)              | 3/4          | 599-03164                    | 599-03182                      |
|       | 4 (3.4)               | 1/2 (15)              | 3/4          | 599-03165                    | 599-03183                      |
|       | 6.3 (5.4)             | 3/4 (20)              | 3/4          | 599-03166                    | 599-03184                      |
|       | 10 (8.6)              | 1 (25)                | 3/4          | 599-03167                    | 599-03185                      |
|       | 16 (14)               | 1-1/4 (32)            | 3/4          | 599-03168                    | 599-03186                      |
|       | 25 (22)               | 1-1/2 (40)            | 3/4          | 599-03169                    | 599-03187                      |
| 3-way | 40 (34)               | 2 (50)                | 3/4          | 599-03170                    | 599-03188                      |
|       | 1 (0.9)               | 1/2 (15)              | 3/4          | —                            | 599-03198                      |
|       | 1.6 (1.4)             | 1/2 (15)              | 3/4          | —                            | 599-03199                      |
|       | 2.5 (2.2)             | 1/2 (15)              | 3/4          | —                            | 599-03200                      |
|       | 4 (3.4)               | 1/2 (15)              | 3/4          | —                            | 599-03201                      |
|       | 6.3 (5.4)             | 3/4 (20)              | 3/4          | —                            | 599-03202                      |
|       | 10 (8.6)              | 1 (25)                | 3/4          | —                            | 599-03203                      |
|       | 16 (14)               | 1-1/4 (32)            | 3/4          | —                            | 599-03204                      |
|       | 25 (22)               | 1-1/2 (40)            | 3/4          | —                            | 599-03205                      |
|       | 40 (34)               | 2 (50)                | 3/4          | —                            | 599-03206                      |

These selection tables only contain FFX end connections with brass trim and equal percentage flow characteristics.

For complete selection, refer to the current edition of *Master HVAC Products Catalog*.

## Flowrite 599 Series Valve Actuators

|                                                                                     | Description              | Part No.              | Actuator Prefix Code |                         |
|-------------------------------------------------------------------------------------|--------------------------|-----------------------|----------------------|-------------------------|
|    | 3-8 psi (21-55 kPa)      | 599-01081             | 268                  | Pneumatic               |
|                                                                                     | 5-10 psi (34-69 kPa)     | 599-01082             | 269                  |                         |
|                                                                                     | 10-15 psi (69 -103 kPa)  | 599-01083             | 270                  |                         |
|    | Normal Temp.             | 599-01050             | 277                  | Pneumatic               |
|                                                                                     | High-Temp.               | 599-01051             | 278                  |                         |
|    | Normal Temp.             | 599-01050 + 599-00426 | 283                  | Pneumatic w/ Positioner |
|                                                                                     | High-Temp.               | 599-01051 + 599-00426 | 284                  |                         |
|  | 24 V, 0-10 V 4-20 mA SR  | SKD62U                | 274                  | Electro-Hydraulic       |
|                                                                                     | 24 V, 3P NSR             | SKD82.50U             | 275                  |                         |
|                                                                                     | 24 V, 3P SR              | SKD82.51U             | 276                  |                         |
|  | 24 V, 0-10 V 4-20 mA NSR | SQX62U                | 271                  | Electro-Mechanical      |
|                                                                                     | 24 V, 3P 120 sec. NSR    | SQX82.00U             | 272                  |                         |
|                                                                                     | 24 V, 3P 30 sec. NSR     | SQX82.03U             | 273                  |                         |
|  | 24 V, 0-10 V Lo NSR      | 599-10021             | 295                  | Electro-Mechanical      |
|                                                                                     | 24 V, 0-10 V Lo SR       | 599-10022             | 296                  |                         |
|  | 24 V, 0-10 V SR          | 599-03609             | 298                  | Electro-Mechanical      |
|                                                                                     | 24 V, 2P SR              | 599-03611             | 299                  |                         |

For Complete Assembly Refer to  
page  
**10**

Complete Assembly  
**APC + Part No.**  
Valve Body Only  
**599 + Part No.**