

**SIEMENS**

*Ingenuity for life*



## Pressure Independent Control Valves and Actuators

One device with three integrated functions:  
control valve, adjustable flow limiter and  
automatic pressure regulator simplifies  
installation and commissioning.

# Optimize $\Delta T$ by maintaining constant flow

Enjoy the freedom to choose a better solution of 2-way Pressure Independent Control Valves (PICVs) with a comprehensive portfolio from 1/2 to 6 inches.

Uniquely designed with three functions integrated into one single device: control valve, adjustable flow limiter, and automatic pressure regulator. This 3-in-1 device improves accuracy and reliability regardless of pressure fluctuations. PICVs can help prolong maintenance and preserve the life of HVAC equipment, enhance room comfort, and optimize energy efficiency.

The combination of control valve and differential pressure regulator in one valve simplifies installation and makes commissioning fast and easy. Pair with trusted Siemens Electronic Valve Actuators for ideal control in renovation, expansion, and new construction projects.

## **Straightforward and convenient**

Our two-way valves feature an integrated differential pressure regulator that keeps the pressure across the internal control valve constant, while also keeping volumetric flow constant, regardless of pressure fluctuations. This ensures a higher level of comfort under all operating conditions and maintains return temperatures at the right level. HVAC equipment, such as pumps, can work easier, generating greater savings in maintenance and repair costs while significantly reducing heating and cooling costs.

Our valve actuators feature a modular design for straightforward and consistent installations across the product offering. Known as highly dependable, these actuators are the perfect companion to our innovative valves and provide years of precise control.



## **FREE sizing and selection tool, SimpleSelect™**

Let SimpleSelect, our Valve Sizing and Selection software, simplify time-consuming work by quickly and accurately size, select and schedule valves, actuators, and assemblies. SimpleSelect searches our entire valve and actuator portfolio and quickly finds the products you need. An intuitive, easy-to-use interface helps you quickly size the valve you need with menus that allow you to:

- Select type of valve
- Choose the medium being controlled
- Determine the correct Cv
- Calculate pressure drop and quantity of steam

**Download SimpleSelect onto your desktop today!**  
Visit [usa.siemens.com/simpleselect](http://usa.siemens.com/simpleselect)

# Advantages of our PICVs:

## 1. Valve Actuator

- Spring return and non-spring return actuators to meet most control requirements
- Visual position indication
- Manual override

## 2. Field Adjustable Flow Limiter

- Full stroke always maintained with independent flow limiter enabling higher control accuracy
- Easily adjust maximum flow at any time when usage patterns change
- Presetting prevents oversupply to the coil

## 3. Control Valve

- A comprehensive portfolio of 1/2 to 6 inch PICVs
- Threaded valves are ANSI Class 250
- Flanged valves available in ANSI Class 125 and 250
- 200, 100 and 45 psi close-offs with ANSI Class IV leakage
- Brass trim with stainless steel stem

## 4. Automatic Differential Pressure Regulator

- Automatically adjusts to pressure fluctuations in the system, maintaining consistent flow at any given control setting, providing better comfort and lower energy consumption
- No mutual hydronic interaction between branches with different operational situations, preventing over- or under-supply
- Fast commissioning with extremely simplified hydronic balancing

## 5. Optional P/T (pressure/temperature) Test Points

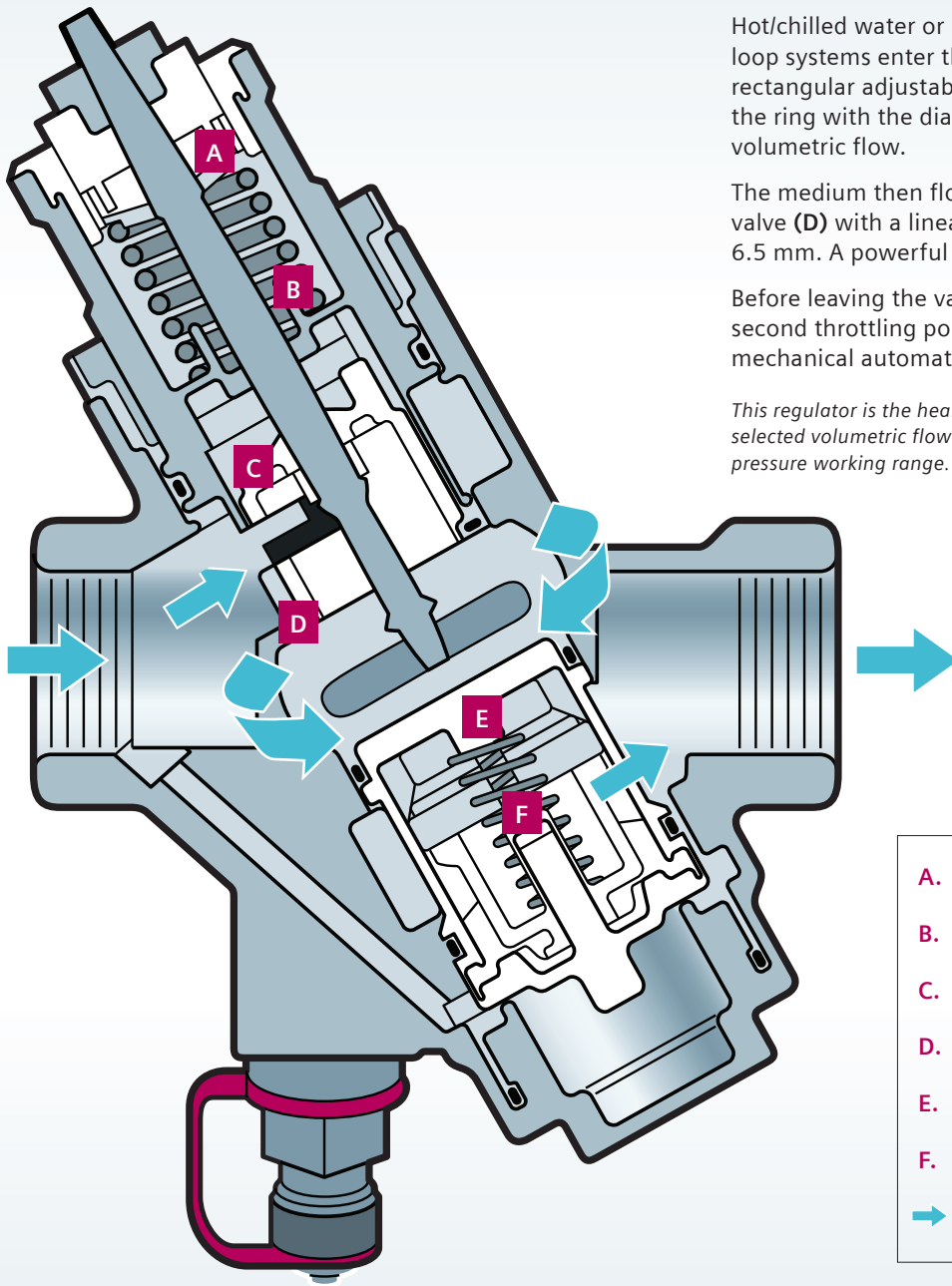
- Straightforward testing and setting of optimum differential pressure when commissioning
- Allow simplified troubleshooting during system operation
- P/T plug set accessory kit part number 599-10079



### FREE factory assembly and valve tagging

Valves and valve actuators are assembled and tagged for direct delivery to any job-site, free of charge. Just specify each valve's location when placing your initial order and we will tag them before shipping to save you installation time and expense. Request this complimentary service when ordering by phone or online at [usa.siemens.com/buildingtechnologiesonlineordering](http://usa.siemens.com/buildingtechnologiesonlineordering)

## How PICVs work:



Hot/chilled water or 50% water-glycol solutions in closed loop systems enter the valve and pass through a variable rectangular adjustable flow limiter (C) that is connected to the ring with the dial (A) for presetting the maximum volumetric flow.

The medium then flows through the temperature control valve (D) with a linear characteristic and a stroke of 5 or 6.5 mm. A powerful spring (B) ensures safe closing.

Before leaving the valve, the medium passes through a second throttling point (E) controlled by the built-in mechanical automatic differential pressure regulator (F).

*This regulator is the heart of the valve and ensures that the selected volumetric flow is maintained across the whole differential pressure working range.*

- A. Presetting dial
- B. Closing spring
- C. Throttling point linked to A
- D. Control seat and plug
- E. Pressure regulator's throttling point
- F. Differential pressure regulator
- Flow path

Looking for technical specifications or installation instructions?

Go to [usa.siemens.com/buildingtechnologiesonlineordering](https://usa.siemens.com/buildingtechnologiesonlineordering) anytime to download and order what you need for smooth installation or servicing: Find Instructions for field mounting an actuator, wiring diagrams, and start-up.

Two-way, ANSI Class 250, 1/2 to 3/4 Inch Valves with 200 psi Close-offs



| Valve Body                      |                      |                         | Normally Open                   |                                 |                                 |                                 |               |
|---------------------------------|----------------------|-------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------|
|                                 |                      |                         | Non-spring Return Actuator      |                                 | Spring Return Actuator          |                                 |               |
| Part No.                        | Valve Size Inch (mm) | Factory Preset Max. GPM | SSD81U Floating                 | SSD61U 0-10V                    | SSD81.5U Floating               | SSD61.5U 0-10V                  |               |
|                                 |                      |                         | Prefix Code                     | Prefix Code                     | Prefix Code                     | Prefix Code                     |               |
|                                 |                      |                         | 230                             | 231                             | 232                             | 233                             |               |
| 599-04310-0.5<br>599-04320-0.5* | 1/2 (15)             | 0.5                     | 230-04310-0.5<br>230-04320-0.5* | 231-04310-0.5<br>231-04320-0.5* | 232-04310-0.5<br>232-04320-0.5* | 233-04310-0.5<br>233-04320-0.5* |               |
| 599-04320-1*<br>599-04321-1     |                      | 1                       | 230-04320-1*<br>230-04321-1     | 231-04320-1*<br>231-04321-1     | 232-04320-1*<br>232-04321-1     | 233-04320-1*<br>233-04321-1     |               |
| 599-04320-1.5*<br>599-04321-1.5 |                      | 1.5                     | 230-04320-1.5*<br>230-04321-1.5 | 231-04320-1.5*<br>231-04321-1.5 | 232-04320-1.5*<br>232-04321-1.5 | 233-04320-1.5*<br>233-04321-1.5 |               |
| 599-04321-2                     |                      | 2                       | 230-04321-2                     | 231-04321-2                     | 232-04321-2                     | 233-04321-2                     |               |
| 599-04321-2.5                   |                      | 2.5                     | 230-04321-2.5                   | 231-04321-2.5                   | 232-04321-2.5                   | 233-04321-2.5                   |               |
| 599-04321-3                     |                      | 3                       | 230-04321-3                     | 231-04321-3                     | 232-04321-3                     | 233-04321-3                     |               |
| 599-04321-3.5                   |                      | 3.5                     | 230-04321-3.5                   | 231-04321-3.5                   | 232-04321-3.5                   | 233-04321-3.5                   |               |
| 599-04321-4                     |                      | 4                       | 230-04321-4                     | 231-04321-4                     | 232-04321-4                     | 233-04321-4                     |               |
| 599-04321-4.5                   |                      | 4.5                     | 230-04321-4.5                   | 231-04321-4.5                   | 232-04321-4.5                   | 233-04321-4.5                   |               |
| 599-04321-5                     |                      | 5                       | 230-04321-5                     | 231-04321-5                     | 232-04321-5                     | 233-04321-5                     |               |
| 599-04321-5.5                   |                      | 5.5                     | 230-04321-5.5                   | 231-04321-5.5                   | 232-04321-5.5                   | 233-04321-5.5                   |               |
| 599-04322-2                     |                      | 3/4 (20)                | 2                               | 230-04322-2                     | 231-04322-2                     | 232-04322-2                     | 233-04322-2   |
| 599-04322-2.5                   |                      |                         | 2.5                             | 230-04322-2.5                   | 231-04322-2.5                   | 232-04322-2.5                   | 233-04322-2.5 |
| 599-04322-3                     |                      |                         | 3                               | 230-04322-3                     | 231-04322-3                     | 232-04322-3                     | 233-04322-3   |
| 599-04322-3.5                   | 3.5                  |                         | 230-04322-3.5                   | 231-04322-3.5                   | 232-04322-3.5                   | 233-04322-3.5                   |               |
| 599-04322-4                     | 4                    |                         | 230-04322-4                     | 231-04322-4                     | 232-04322-4                     | 233-04322-4                     |               |
| 599-04322-4.5                   | 4.5                  |                         | 230-04322-4.5                   | 231-04322-4.5                   | 232-04322-4.5                   | 233-04322-4.5                   |               |
| 599-04322-5                     | 5                    |                         | 230-04322-5                     | 231-04322-5                     | 232-04322-5                     | 233-04322-5                     |               |
| 599-04322-5.5                   | 5.5                  |                         | 230-04322-5.5                   | 231-04322-5.5                   | 232-04322-5.5                   | 233-04322-5.5                   |               |
| 599-04322-6                     | 6                    |                         | 230-04322-6                     | 231-04322-6                     | 232-04322-6                     | 233-04322-6                     |               |
| 599-04322-6.5                   | 6.5                  |                         | 230-04322-6.5                   | 231-04322-6.5                   | 232-04322-6.5                   | 233-04322-6.5                   |               |
| 599-04322-7                     | 7                    | 230-04322-7             | 231-04322-7                     | 232-04322-7                     | 233-04322-7                     |                                 |               |
| 599-04322-7.5                   | 7.5                  | 230-04322-7.5           | 231-04322-7.5                   | 232-04322-7.5                   | 233-04322-7.5                   |                                 |               |
| 599-04322-8                     | 8                    | 230-04322-8             | 231-04322-8                     | 232-04322-8                     | 233-04322-8                     |                                 |               |

\* available late 2019

Two-way, ANSI Class 250, 1 to 1-1/4 Inch Valves  
with 200 psi Close-offs



| Valve Body   |                         |                            | Normally Open              |                 |                        |                   |              |
|--------------|-------------------------|----------------------------|----------------------------|-----------------|------------------------|-------------------|--------------|
|              |                         |                            | Non-spring Return Actuator |                 | Spring Return Actuator |                   |              |
| Part No.     | Valve Size<br>Inch (mm) | Factory Preset<br>Max. GPM | SSD81U<br>Floating         | SSD61U<br>0-10V | SSD81.5U<br>Floating   | SSD61.5U<br>0-10V |              |
|              |                         |                            | Prefix Code                | Prefix Code     | Prefix Code            | Prefix Code       |              |
|              |                         |                            | 230                        | 231             | 232                    | 233               |              |
| 599-04323-4  | 1 (25)                  | 4                          | 230-04323-4                | 231-04323-4     | 232-04323-4            | 233-04323-4       |              |
| 599-04323-5  |                         | 5                          | 230-04323-5                | 231-04323-5     | 232-04323-5            | 233-04323-5       |              |
| 599-04323-6  |                         | 6                          | 230-04323-6                | 231-04323-6     | 232-04323-6            | 233-04323-6       |              |
| 599-04323-7  |                         | 7                          | 230-04323-7                | 231-04323-7     | 232-04323-7            | 233-04323-7       |              |
| 599-04323-8  |                         | 8                          | 230-04323-8                | 231-04323-8     | 232-04323-8            | 233-04323-8       |              |
| 599-04323-9  |                         | 9                          | 230-04323-9                | 231-04323-9     | 232-04323-9            | 233-04323-9       |              |
| 599-04323-10 |                         | 10                         | 230-04323-10               | 231-04323-10    | 232-04323-10           | 233-04323-10      |              |
| 599-04323-11 |                         | 11                         | 230-04323-11               | 231-04323-11    | 232-04323-11           | 233-04323-11      |              |
| 599-04323-12 |                         | 12                         | 230-04323-12               | 231-04323-12    | 232-04323-12           | 233-04323-12      |              |
| 599-04323-13 |                         | 13                         | 230-04323-13               | 231-04323-13    | 232-04323-13           | 233-04323-13      |              |
| 599-04323-14 |                         | 14                         | 230-04323-14               | 231-04323-14    | 232-04323-14           | 233-04323-14      |              |
| 599-04323-15 |                         | 15                         | 230-04323-15               | 231-04323-15    | 232-04323-15           | 233-04323-15      |              |
| 599-04323-16 |                         | 16                         | 230-04323-16               | 231-04323-16    | 232-04323-16           | 233-04323-16      |              |
| 599-04314-9  |                         | 1-1/4 (32)                 | 9                          | 230-04314-9     | 231-04314-9            | 232-04314-9       | 233-04314-9  |
| 599-04314-10 |                         |                            | 10                         | 230-04314-10    | 231-04314-10           | 232-04314-10      | 233-04314-10 |
| 599-04314-11 |                         |                            | 11                         | 230-04314-11    | 231-04314-11           | 232-04314-11      | 233-04314-11 |
| 599-04314-12 | 12                      |                            | 230-04314-12               | 231-04314-12    | 232-04314-12           | 233-04314-12      |              |
| 599-04314-13 | 13                      |                            | 230-04314-13               | 231-04314-13    | 232-04314-13           | 233-04314-13      |              |
| 599-04314-14 | 14                      |                            | 230-04314-14               | 231-04314-14    | 232-04314-14           | 233-04314-14      |              |
| 599-04314-15 | 15                      |                            | 230-04314-15               | 231-04314-15    | 232-04314-15           | 233-04314-15      |              |
| 599-04314-16 | 16                      |                            | 230-04314-16               | 231-04314-16    | 232-04314-16           | 233-04314-16      |              |
| 599-04314-17 | 17                      |                            | 230-04314-17               | 231-04314-17    | 232-04314-17           | 233-04314-17      |              |
| 599-04314-18 | 18                      |                            | 230-04314-18               | 231-04314-18    | 232-04314-18           | 233-04314-18      |              |

Two-way, ANSI Class 250, 1-1/2 to 2 Inch Valves with 100 psi Close-offs



| Valve Body   |                         |                            | Normally Open or Closed<br>Non-spring Return Actuator |                             |
|--------------|-------------------------|----------------------------|---|-----------------------------|
| Part No.     | Valve Size<br>Inch (mm) | Factory Preset<br>Max. GPM | SAY81.03U<br>Floating                                 | SAY61.03U<br>0-10V & 4-20mA |
|              |                         |                            | Prefix Code   | Prefix Code                 |
|              |                         |                            | 334   | 335                         |
| 599-04315-15 | 1-1/2 (40)              | 15                         | 334-04315-15  | 335-04315-15                |
| 599-04315-20 |                         | 20                         | 334-04315-20  | 335-04315-20                |
| 599-04315-25 |                         | 25                         | 334-04315-25  | 335-04315-25                |
| 599-04315-30 |                         | 30                         | 334-04315-30  | 335-04315-30                |
| 599-04315-35 |                         | 35                         | 334-04315-35  | 335-04315-35                |
| 599-04315-40 |                         | 40                         | 334-04315-40  | 335-04315-40                |
| 599-04316-20 | 2 (50)                  | 20                         | 334-04316-20  | 335-04316-20                |
| 599-04316-25 |                         | 25                         | 334-04316-25  | 335-04316-25                |
| 599-04316-30 |                         | 30                         | 334-04316-30  | 335-04316-30                |
| 599-04316-35 |                         | 35                         | 334-04316-35  | 335-04316-35                |
| 599-04316-40 |                         | 40                         | 334-04316-40  | 335-04316-40                |
| 599-04316-45 |                         | 45                         | 334-04316-45  | 335-04316-45                |
| 599-04316-50 |                         | 50                         | 334-04316-50  | 335-04316-50                |

SAY actuators can be wired for normally closed operation. 0-10V actuators require AZX61.1 Function Module, refer to technical instructions.

| Valve Body   |                         |                            | Normally Open           |                         | Normally Closed         |                         |
|--------------|-------------------------|----------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Part No.     | Valve Size<br>Inch (mm) | Factory Preset<br>Max. GPM | Spring Return Actuator  |                         |                         |                         |
|              |                         |                            | 599-03616NO<br>Floating | 599-03617NO<br>0(2)-10V | 599-03616NC<br>Floating | 599-03617NC<br>0(2)-10V |
|              |                         |                            | Prefix Code             | Prefix Code             | Prefix Code             | Prefix Code             |
|              |                         |                            | 336NO                   | 337NO                   | 336NC                   | 337NC                   |
| 599-04315-15 | 1-1/2 (40)              | 15                         | 336NO-04315-15          | 337NO-04315-15          | 336NC-04315-15          | 337NC-04315-15          |
| 599-04315-20 |                         | 20                         | 336NO-04315-20          | 337NO-04315-20          | 336NC-04315-20          | 337NC-04315-20          |
| 599-04315-25 |                         | 25                         | 336NO-04315-25          | 337NO-04315-25          | 336NC-04315-25          | 337NC-04315-25          |
| 599-04315-30 |                         | 30                         | 336NO-04315-30          | 337NO-04315-30          | 336NC-04315-30          | 337NC-04315-30          |
| 599-04315-35 |                         | 35                         | 336NO-04315-35          | 337NO-04315-35          | 336NC-04315-35          | 337NC-04315-35          |
| 599-04315-40 |                         | 40                         | 336NO-04315-40          | 337NO-04315-40          | 336NC-04315-40          | 337NC-04315-40          |
| 599-04316-20 | 2 (50)                  | 20                         | 336NO-04316-20          | 337NO-04316-20          | 336NC-04316-20          | 337NC-04316-20          |
| 599-04316-25 |                         | 25                         | 336NO-04316-25          | 337NO-04316-25          | 336NC-04316-25          | 337NC-04316-25          |
| 599-04316-30 |                         | 30                         | 336NO-04316-30          | 337NO-04316-30          | 336NC-04316-30          | 337NC-04316-30          |
| 599-04316-35 |                         | 35                         | 336NO-04316-35          | 337NO-04316-35          | 336NC-04316-35          | 337NC-04316-35          |
| 599-04316-40 |                         | 40                         | 336NO-04316-40          | 337NO-04316-40          | 336NC-04316-40          | 337NC-04316-40          |
| 599-04316-45 |                         | 45                         | 336NO-04316-45          | 337NO-04316-45          | 336NC-04316-45          | 337NC-04316-45          |
| 599-04316-50 |                         | 50                         | 336NO-04316-50          | 337NO-04316-50          | 336NC-04316-50          | 337NC-04316-50          |

Two-way, ANSI Class 250, 1/2 to 3/4 Inch Valves with 45 psi Close-offs



| Valve Body    |                      |                         | Normally Closed            |               |                        |                |
|---------------|----------------------|-------------------------|----------------------------|---------------|------------------------|----------------|
|               |                      |                         | Non-spring Return Actuator |               | Spring Return Actuator |                |
| Part No.      | Valve Size Inch (mm) | Factory Preset Max. GPM | SSD81U Floating            | SSD61U 0-10V  | SSD81.5U Floating      | SSD61.5U 0-10V |
|               |                      |                         | Prefix Code                |               | Prefix Code            |                |
|               |                      |                         | 230                        | 231           | 232                    | 233            |
| 599-04300-0.5 | 1/2 (15)             | 0.5                     | 230-04300-0.5              | 231-04300-0.5 | 232-04300-0.5          | 233-04300-0.5  |
| 599-04300-1   |                      | 1.0                     | 230-04300-1                | 231-04300-1   | 232-04300-1            | 233-04300-1    |
| 599-04300-1.5 |                      | 1.5                     | 230-04300-1.5              | 231-04300-1.5 | 232-04300-1.5          | 233-04300-1.5  |
| 599-04300-2   |                      | 2.0                     | 230-04300-2                | 231-04300-2   | 232-04300-2            | 233-04300-2    |
| 599-04300-2.5 |                      | 2.5                     | 230-04300-2.5              | 231-04300-2.5 | 232-04300-2.5          | 233-04300-2.5  |
| 599-04301-3   |                      | 3.0                     | 230-04301-3                | 231-04301-3   | 232-04301-3            | 233-04301-3    |
| 599-04301-3.5 |                      | 3.5                     | 230-04301-3.5              | 231-04301-3.5 | 232-04301-3.5          | 233-04301-3.5  |
| 599-04301-4   |                      | 4.0                     | 230-04301-4                | 231-04301-4   | 232-04301-4            | 233-04301-4    |
| 599-04301-4.5 |                      | 4.5                     | 230-04301-4.5              | 231-04301-4.5 | 232-04301-4.5          | 233-04301-4.5  |
| 599-04301-5   |                      | 5.0                     | 230-04301-5                | 231-04301-5   | 232-04301-5            | 233-04301-5    |
| 599-04301-5.5 |                      | 5.5                     | 230-04301-5.5              | 231-04301-5.5 | 232-04301-5.5          | 233-04301-5.5  |
| 599-04301-6   |                      | 6.0                     | 230-04301-6                | 231-04301-6   | 232-04301-6            | 233-04301-6    |
| 599-04301-6.5 |                      | 6.5                     | 230-04301-6.5              | 231-04301-6.5 | 232-04301-6.5          | 233-04301-6.5  |
| 599-04301-7   |                      | 7.0                     | 230-04301-7                | 231-04301-7   | 232-04301-7            | 233-04301-7    |
| 599-04301-7.5 |                      | 7.5                     | 230-04301-7.5              | 231-04301-7.5 | 232-04301-7.5          | 233-04301-7.5  |
| 599-04302-1   | 3/4 (20)             | 1.0                     | 230-04302-1                | 231-04302-1   | 232-04302-1            | 233-04302-1    |
| 599-04302-1.5 |                      | 1.5                     | 230-04302-1.5              | 231-04302-1.5 | 232-04302-1.5          | 233-04302-1.5  |
| 599-04302-2   |                      | 2.0                     | 230-04302-2                | 231-04302-2   | 232-04302-2            | 233-04302-2    |
| 599-04302-2.5 |                      | 2.5                     | 230-04302-2.5              | 231-04302-2.5 | 232-04302-2.5          | 233-04302-2.5  |
| 599-04302-3   |                      | 3.0                     | 230-04302-3                | 231-04302-3   | 232-04302-3            | 233-04302-3    |
| 599-04302-3.5 |                      | 3.5                     | 230-04302-3.5              | 231-04302-3.5 | 232-04302-3.5          | 233-04302-3.5  |
| 599-04302-4   |                      | 4.0                     | 230-04302-4                | 231-04302-4   | 232-04302-4            | 233-04302-4    |
| 599-04302-4.5 |                      | 4.5                     | 230-04302-4.5              | 231-04302-4.5 | 232-04302-4.5          | 233-04302-4.5  |
| 599-04303-5   |                      | 5.0                     | 230-04303-5                | 231-04303-5   | 232-04303-5            | 233-04303-5    |
| 599-04303-5.5 |                      | 5.5                     | 230-04303-5.5              | 231-04303-5.5 | 232-04303-5.5          | 233-04303-5.5  |
| 599-04303-6   |                      | 6.0                     | 230-04303-6                | 231-04303-6   | 232-04303-6            | 233-04303-6    |
| 599-04303-6.5 |                      | 6.5                     | 230-04303-6.5              | 231-04303-6.5 | 232-04303-6.5          | 233-04303-6.5  |
| 599-04303-7   |                      | 7.0                     | 230-04303-7                | 231-04303-7   | 232-04303-7            | 233-04303-7    |
| 599-04303-7.5 |                      | 7.5                     | 230-04303-7.5              | 231-04303-7.5 | 232-04303-7.5          | 233-04303-7.5  |
| 599-04303-8   |                      | 8.0                     | 230-04303-8                | 231-04303-8   | 232-04303-8            | 233-04303-8    |
| 599-04303-8.5 | 8.5                  | 230-04303-8.5           | 231-04303-8.5              | 232-04303-8.5 | 233-04303-8.5          |                |

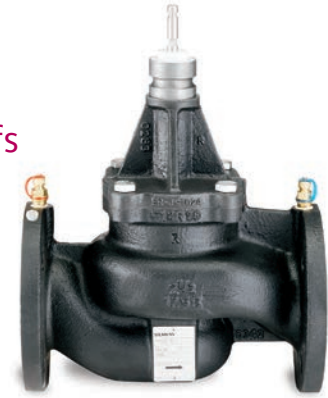


Two-way, ANSI Class 250, 1 to 1-1/4 Inch Valves  
with 45 psi Close-offs



| Valve Body   |                         |                            | Normally Closed            |                 |                        |                   |
|--------------|-------------------------|----------------------------|----------------------------|-----------------|------------------------|-------------------|
|              |                         |                            | Non-spring Return Actuator |                 | Spring Return Actuator |                   |
| Part No.     | Valve Size<br>Inch (mm) | Factory Preset<br>Max. GPM | SSD81U<br>Floating         | SSD61U<br>0-10V | SSD81.5U<br>Floating   | SSD61.5U<br>0-10V |
|              |                         |                            | Prefix Code                |                 | Prefix Code            |                   |
|              |                         |                            | 230                        | 231             | 232                    | 233               |
| 599-04304-1  | 1                       | 1                          | 230-04304-1                | 231-04304-1     | 232-04304-1            | 233-04304-1       |
| 599-04304-2  |                         | 2                          | 230-04304-2                | 231-04304-2     | 232-04304-2            | 233-04304-2       |
| 599-04304-3  |                         | 3                          | 230-04304-3                | 231-04304-3     | 232-04304-3            | 233-04304-3       |
| 599-04304-4  |                         | 4                          | 230-04304-4                | 231-04304-4     | 232-04304-4            | 233-04304-4       |
| 599-04304-5  |                         | 5                          | 230-04304-5                | 231-04304-5     | 232-04304-5            | 233-04304-5       |
| 599-04304-6  |                         | 6                          | 230-04304-6                | 231-04304-6     | 232-04304-6            | 233-04304-6       |
| 599-04304-7  |                         | 7                          | 230-04304-7                | 231-04304-7     | 232-04304-7            | 233-04304-7       |
| 599-04304-8  |                         | 8                          | 230-04304-8                | 231-04304-8     | 232-04304-8            | 233-04304-8       |
| 599-04304-9  |                         | 9                          | 230-04304-9                | 231-04304-9     | 232-04304-9            | 233-04304-9       |
| 599-04305-3  | 1-1/4                   | 3                          | 230-04305-3                | 231-04305-3     | 232-04305-3            | 233-04305-3       |
| 599-04305-4  |                         | 4                          | 230-04305-4                | 231-04305-4     | 232-04305-4            | 233-04305-4       |
| 599-04305-5  |                         | 5                          | 230-04305-5                | 231-04305-5     | 232-04305-5            | 233-04305-5       |
| 599-04305-6  |                         | 6                          | 230-04305-6                | 231-04305-6     | 232-04305-6            | 233-04305-6       |
| 599-04305-7  |                         | 7                          | 230-04305-7                | 231-04305-7     | 232-04305-7            | 233-04305-7       |
| 599-04305-8  |                         | 8                          | 230-04305-8                | 231-04305-8     | 232-04305-8            | 233-04305-8       |
| 599-04305-9  |                         | 9                          | 230-04305-9                | 231-04305-9     | 232-04305-9            | 233-04305-9       |
| 599-04305-10 |                         | 10                         | 230-04305-10               | 231-04305-10    | 232-04305-10           | 233-04305-10      |
| 599-04305-11 |                         | 11                         | 230-04305-11               | 231-04305-11    | 232-04305-11           | 233-04305-11      |
| 599-04305-12 |                         | 12                         | 230-04305-12               | 231-04305-12    | 232-04305-12           | 233-04305-12      |
| 599-04305-13 | 13                      | 230-04305-13               | 231-04305-13               | 232-04305-13    | 233-04305-13           |                   |

Two-way, Flanged, 2-1/2 to 6 Inch Valves with 100 psi Close-offs and Electronic Non-spring Return Actuators



| Valve Body            |                      |              | Normally Open or Closed    |                    |                 |                 |
|-----------------------|----------------------|--------------|----------------------------|--------------------|-----------------|-----------------|
|                       |                      |              | Non-spring Return Actuator |                    |                 |                 |
| Part No.              | Valve Size Inch (mm) | Maximum Flow | SAX81.03U Floating         | SAV81.00U Floating | SAX61.03U 0-10V | SAV61.00U 0-10V |
|                       |                      |              | Prefix Code                | Prefix Code        | Prefix Code     | Prefix Code     |
|                       |                      |              | 373                        | 379                | 371             | 378             |
| <b>ANSI CLASS 125</b> |                      |              |                            |                    |                 |                 |
| 599-07310             | 2-1/2                | 110          | 373-07310                  | –                  | 371-07310       | –               |
| 599-07315             |                      | 154          | 373-07315                  | –                  | 371-07315       | –               |
| 599-07311             | 3                    | 150          | 373-07311                  | –                  | 371-07311       | –               |
| 599-07316             |                      | 190          | 373-07316                  | –                  | 371-07316       | –               |
| 599-07312             | 4                    | 300          | –                          | 379-07312          | –               | 378-07312       |
| 599-07317             |                      | 395          | –                          | 379-07317          | –               | 378-07317       |
| 599-07313             | 5                    | 485          | –                          | 379-07313          | –               | 378-07313       |
| 599-07318             |                      | 595          | –                          | 379-07318          | –               | 378-07318       |
| 599-07314             | 6                    | 650          | –                          | 379-07314          | –               | 378-07314       |
| 599-07319             |                      | 860          | –                          | 379-07319          | –               | 378-07319       |
| <b>ANSI CLASS 250</b> |                      |              |                            |                    |                 |                 |
| 599-07320             | 2-1/2                | 110          | 373-07320                  | –                  | 371-07320       | –               |
| 599-07325             |                      | 154          | 373-07325                  | –                  | 371-07325       | –               |
| 599-07321             | 3                    | 150          | 373-07321                  | –                  | 371-07321       | –               |
| 599-07326             |                      | 190          | 373-07326                  | –                  | 371-07326       | –               |
| 599-07322             | 4                    | 300          | –                          | 379-07322          | –               | 378-07322       |
| 599-07327             |                      | 395          | –                          | 379-07327          | –               | 378-07327       |
| 599-07323             | 5                    | 485          | –                          | 379-07323          | –               | 378-07323       |
| 599-07328             |                      | 595          | –                          | 379-07328          | –               | 378-07328       |
| 599-07324             | 6                    | 650          | –                          | 379-07324          | –               | 378-07324       |
| 599-07329             |                      | 860          | –                          | 379-07329          | –               | 378-07329       |

SAX and SAV actuators can be wired for normally closed operation.  
 0-10V actuators require AZX61.1 Function Module, refer to technical instructions.

Two-way, Flanged, 2-1/2 to 6 Inch Valves with 100 psi Close-offs and Electronic Spring Return Actuators



| Valve Body            |                         |                 | Normally Open              | Normally Closed              |
|-----------------------|-------------------------|-----------------|----------------------------|------------------------------|
|                       |                         |                 | Spring Return Actuator     |                              |
| Part No.              | Valve Size<br>Inch (mm) | Maximum<br>Flow | SQV91P30U<br>Normally Open | SQV91P40U<br>Normally Closed |
|                       |                         |                 | Floating, 0-10 V, 4-20 mA  | Floating, 0-10 V, 4-20 mA    |
|                       |                         |                 | Prefix Code                | Prefix Code                  |
|                       |                         |                 | 238                        | 239                          |
| <b>ANSI CLASS 125</b> |                         |                 |                            |                              |
| 599-07310             | 2-1/2                   | 110             | 238-07310                  | 239-07310                    |
| 599-07315             |                         | 154             | 238-07315                  | 239-07315                    |
| 599-07311             | 3                       | 150             | 238-07311                  | 239-07311                    |
| 599-07316             |                         | 190             | 238-07316                  | 239-07316                    |
| 599-07312             | 4                       | 300             | 238-07312                  | 239-07312                    |
| 599-07317             |                         | 395             | 238-07317                  | 239-07317                    |
| 599-07313             | 5                       | 485             | 238-07313                  | 239-07313                    |
| 599-07318             |                         | 595             | 238-07318                  | 239-07318                    |
| 599-07314             | 6                       | 650             | 238-07314                  | 239-07314                    |
| 599-07319             |                         | 860             | 238-07319                  | 239-07319                    |
| <b>ANSI CLASS 250</b> |                         |                 |                            |                              |
| 599-07320             | 2-1/2                   | 110             | 238-07320                  | 239-07320                    |
| 599-07325             |                         | 154             | 238-07325                  | 239-07325                    |
| 599-07321             | 3                       | 150             | 238-07321                  | 239-07321                    |
| 599-07326             |                         | 190             | 238-07326                  | 239-07326                    |
| 599-07322             | 4                       | 300             | 238-07322                  | 379-07322                    |
| 599-07327             |                         | 395             | 238-07327                  | 379-07327                    |
| 599-07323             | 5                       | 485             | 238-07323                  | 379-07323                    |
| 599-07328             |                         | 595             | 238-07328                  | 379-07328                    |
| 599-07324             | 6                       | 650             | 238-07324                  | 379-07324                    |
| 599-07329             |                         | 860             | 238-07329                  | 379-07329                    |

# Actuators



## SSD Series Electronic Valve Actuators

- For 1/2-inch to 1-1/4-inch Pressure Independent Control Valves with 200 psi close-offs and ANSI Class IV leakage.
- Positioning force >56 lbs (250 N)
  - Floating or 0 to 10 Vdc control
  - Spring return and non-spring return variants
  - Automatic stroke calibration on the SSD61...
  - Reduced power consumption in holding position



## SQV Series Electronic Valve Actuators

- For 2-1/2-inch to 6-inch Flanged Pressure Independent Control Valves.
- Positioning force >247 lbs (1100 N)
  - 24 Vac/dc operating voltage
  - Fail-safe function



## Rack & Pinion Actuators

- Couple an OpenAir® GPC Spring Return Actuator to a 1-1/2- or 2-inch Pressure Independent Control Valve using a linkage. The linkage transforms the actuator rotary movement into the linear motion required to position the valve.
- Floating (3P) or 0(2) to 10 V control signals
  - Ordered as Normally Open or Normally Closed
  - 100 psi close-off with ANSI Class IV leakage
  - 60-second run time
  - Integrated 1/2-inch NPT conduit connection
  - Modulating actuator has 0(2) to 10 Vdc feedback



## SAX Series Valve Actuators

- For 2-1/2-inch to 6-inch Flanged Pressure Independent Control Valves.
- 180 lb (800 N) nominal force
  - 24 Vac/dc operation
  - Non-spring return
  - Proportional or floating (3P) control



## SAY Series Valve Actuators

- For 1-1/2-inch to 2-inch Pressure Independent Control Valves with 100 psi close-offs and ANSI Class IV leakage.
- Normally Open or Closed
  - Positioning force > 45 lbs (200 N)
  - Floating (3P), 0 to 10 Vdc control signals
  - Non-spring return
  - Maintenance-free



## SAV Series Electronic Valve Actuators

- For 2-1/2-inch to 6-inch Flanged Pressure Independent Control Valves.
- 360 lb (1600 N) nominal force
  - 24 Vac/dc operation
  - Non-spring return
  - Proportional or floating (3P) control

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