



Seat Valve

Threaded 5,5 mm stroke

SVI

SEP.08



SVI

Features

- 3-port Valves can be used in mixing or diverting application
- The compact size makes it perfectly suited for installations where space is limited
- Linear flow characteristics
- Maintenance free low friction spindle sealing
- Threaded valve neck for fitting actuator

Application and use

SVI valve bodies are used in HVAC systems to control fluid in heating, refrigeration, ventilation in commercial and industrial plants.

Valves are fitted with female threaded connections in 2 and 3-way.

3-way valves are used in mixing mode, they can be used in diverting mode reducing the maxi differential pressure value by 50%.

Do not use the bypass (angle way) as control port.

SVI valve bodies are motorized by AXM series electronic actuators.

Technical Data

| | |
|-----------------------------|---|
| Nominal Pressure | PN 16 |
| Operating pressure | Max.1600 kPa (16bar) |
| Valve characteristic | Linear |
| Material | |
| Valve body | Cast-iron G25 |
| Plug | Brass OT58 |
| Plug gasket | FKM O-ring |
| Spindle | Stainless steel AISI304 |
| Spindle packing | FKM O-ring |
| Spindle packing nut | Brass OT58 |
| Spring | Stainless steel AISI304 |
| Connections | Threaded female |
| Leakage | Direct way A-AB perfect sealing Angle way B-AB 0,2%kvs |
| Stroke | 5.5mm |
| Rangeability | 50:1 |
| Fluid temperature | -10...+120C |
| Fluid type | Water, water with glycol max 50% |
| Weight: | See "Dimensions |

Ordering

| | |
|----------------|-----------------------------------|
| SVI 210 | Two-way Seat Valve 15mm 0,25kvs |
| SVI 211 | Two-way Seat Valve 15mm 0,4kvs |
| SVI 212 | Two-way Seat Valve 15mm 0,63kvs |
| SVI 213 | Two-way Seat Valve 15mm 1,0kvs |
| SVI 214 | Two-way Seat Valve 15mm 1,6kvs |
| SVI 215 | Two-way Seat Valve 15mm 2,5kvs |
| SVI 218 | Two-way Seat Valve 20mm 4,0kvs |
| SVI 220 | Two-way Seat Valve 20mm 6,3kvs |
| SVI 225 | Two-way Seat Valve 25mm 10kvs |
| SVI 232 | Two-way Seat Valve 32mm 13kvs |
| SVI 240 | Two-way Seat Valve 40mm 16kvs |
| SVI 310 | Three-way Seat Valve 15mm 0,25kvs |
| SVI 311 | Three-way Seat Valve 15mm 0,4kvs |
| SVI 312 | Three-way Seat Valve 15mm 0,63kvs |
| SVI 313 | Three-way Seat Valve 15mm 1,0kvs |
| SVI 314 | Three-way Seat Valve 15mm 1,6kvs |
| SVI 315 | Three-way Seat Valve 15mm 2,5kvs |
| SVI 318 | Three-way Seat Valve 20mm 4,0kvs |
| SVI 320 | Three-way Seat Valve 20mm 6,3kvs |
| SVI 225 | Three-way Seat Valve 25mm 10kvs |
| SVI 332 | Three-way Seat Valve 32mm 13kvs |
| SVI 340 | Three-way Seat Valve 40mm 16kvs |

Piping Connections

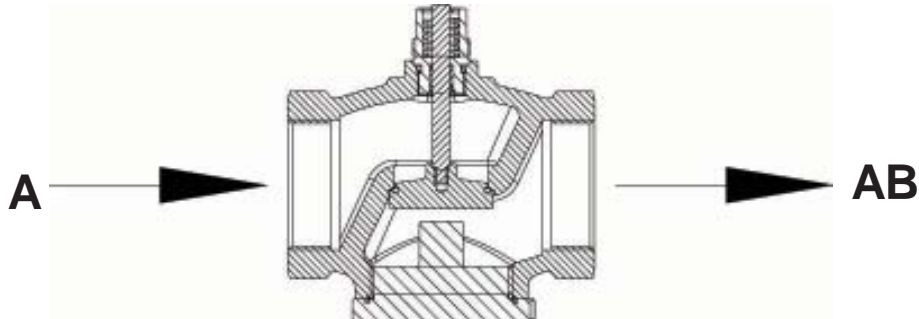
Make the piping connections according to flow directions indicated on the valve body as the following drawings.

AB is always the output.

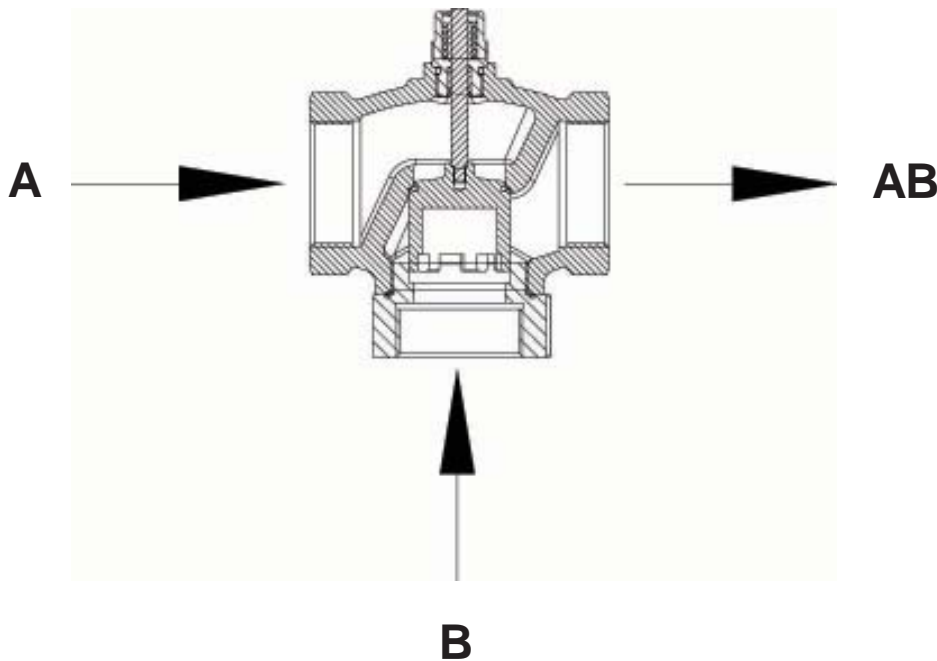
Input is A for 2-way valve

Input are A and B for 3-way valve

2-way valve



3-way valve



Valve Mounting

Before mounting the valve be sure that the pipes are clean and free from soldering scraps.

Pipes must be lined up squarley with the valve at each connection and free of vibrations.

Install the valve/actuator vertically or horizontally but never upside down.

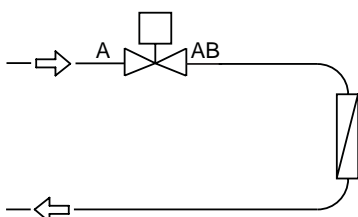
Leave enough clearance to facilitate the dismounting of the actuator from the valve body for maintenance purpose.

The valve must not be installed in explosive atmosphere or in ambient with temperature and humidity outside the ranges indicated on technical features part.

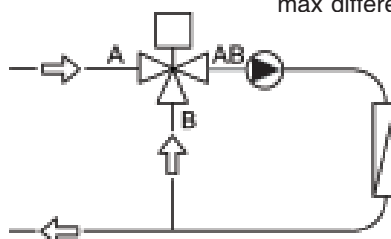
Valve must not be subjected to water or steam jets or dripping liquid.

3-way valve must be used in mixing way (2 inlets and 1 output).

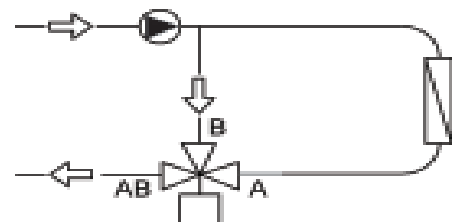
If the valve is used in diverting way (1 inlet and 2 outputs), the max differential pressure allowed is reduced by 50%.



2-way



3-way mixing used in mixing application toward user



3-way mixing used in diverting application toward user

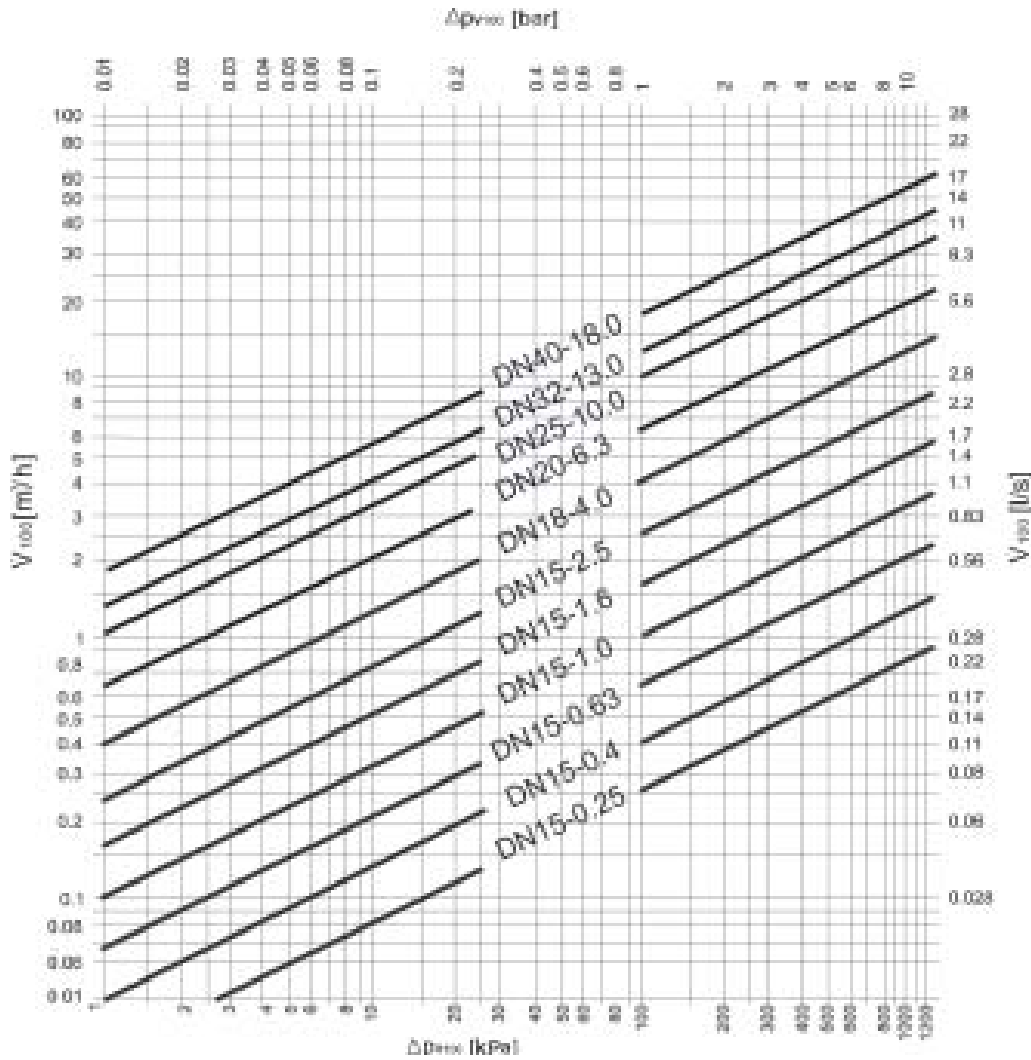


Seat Valve Threaded 5,5 mm stroke

SVI

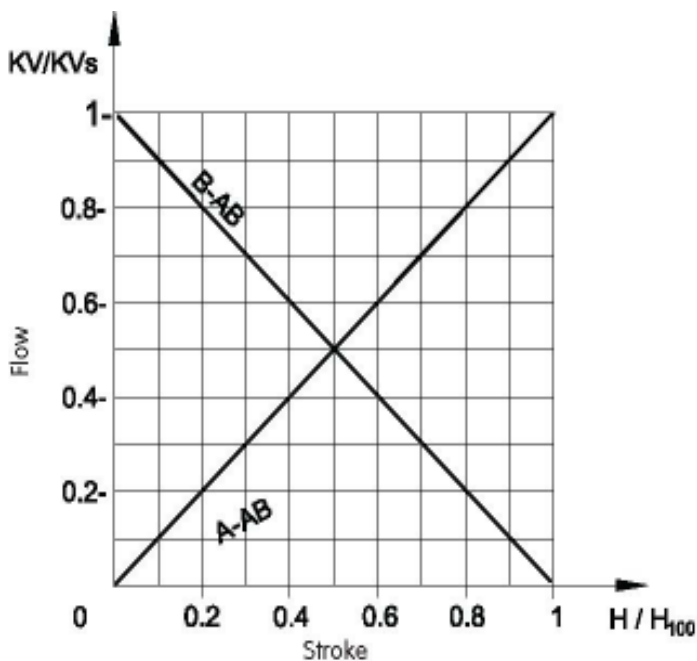
SEP.08

Control Drop Diagram



- V_{100} Nominal flow rate at dp_{v100}
- dp_{v100} Differential pressure drop across the valve fully open
- k_{vs} Nominal flow rate

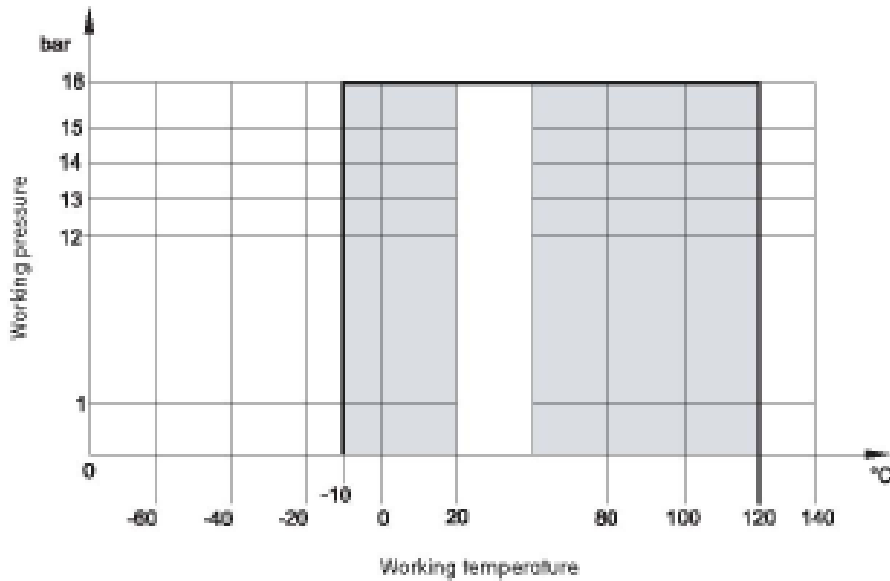
Control Flow Characteristics



3-way used as mixing inlet in A and B, outlet AB
3-way used as diverting inlet in AB outlet from A and B

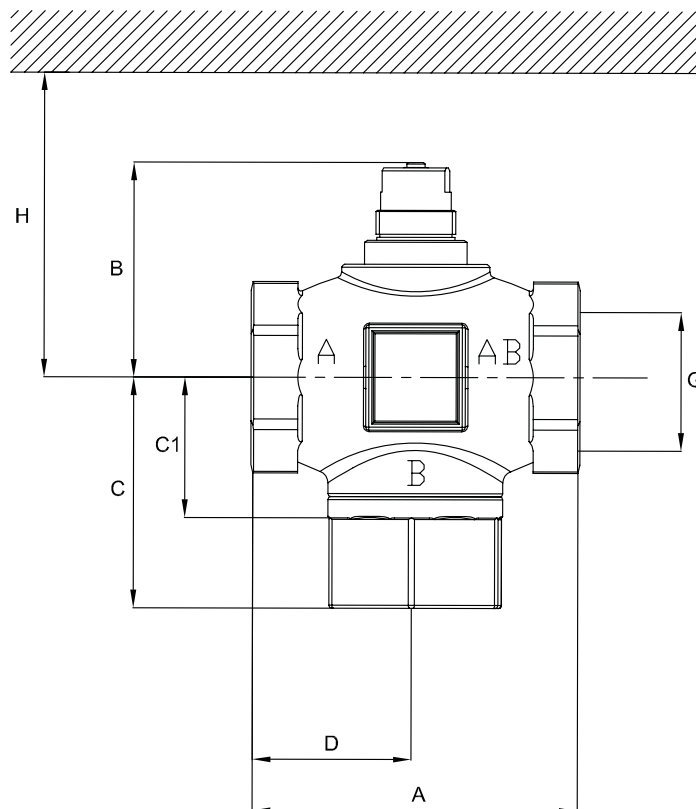
- Via AB constant flow
- Via A variable flow
- Via B (bypass) variable flow

Diagram Pressure/ Temperature



Dimensions

| DN | inch | SVI 3 | | SVI 2 | | D | Hmin. | Weight in kg | |
|----|--------|-------|------|-------|------|------|-------|--------------|---------|
| | | A | B | C | C1 | | | SVI 2.. | SVI 3.. |
| 15 | ½" | 66 | 55,3 | 40,5 | 32,5 | 33,0 | 205 | 0,6 | 0,62 |
| 20 | ¾" | 90 | 60,8 | 56,0 | 42,0 | 45,0 | 210 | 1,05 | 1,15 |
| 25 | 1" | 96 | 68,3 | 59,2 | 40,5 | 48,0 | 220 | 1,4 | 1,15 |
| 32 | 1 1/4" | 109 | 71,3 | 67,2 | 47,5 | 54,5 | 225 | 1,85 | 2,0 |
| 40 | 1 ½" | 122 | 75,8 | 72,0 | 55,0 | 61,0 | 230 | 2,65 | 2,7 |



We reserve the right to make changes and improvements in our products which may effect the accuracy of the information contained in this leaflet.