

**• Operation**

When the stem of the valve is moved down by the actuator, it opens the N.C. port or closes the N.O. port of a valve.

Valve Type	Stem movement / flow	Actuator stem up	Actuator stem down
2-way NO, PRTCO	▲ = flow ▼ = no flow		
3-way, linking			

† PTOC = Push down to close

The following is valid for the flow direction:

Valve plug close-off movement must always be directed against the flow. This requirement is fulfilled when the valve is installed as directed by the symbols on valve body

**Caution:** Pressure test of the heating installation may only be performed with opened valves.

**• Danger**

Safe operation of the valve is only ensured if the valve is installed, activated, and serviced by qualified personnel in compliance with the warnings indicated in this SDI. In addition, the general installation and safety regulations for pipeline and system construction and the professional use of tools and safety equipment must be guaranteed. During all work on the control valve, these indications must be absolutely observed. Ignoring this information may cause physical or material damage.



**• Storage**

- Storage temperature: -20°C to +55°C, dry and free of dirt.
- In rooms where moisture or condensation are present use heating or a drying agent to maintain a moisture free atmosphere.

**• Transport**

- Transport temperature: -20°C to +65°C.
- Protect against external forces (shock, vibration etc.).

**• Handling prior to installation:**

- For valves with stem protection cap, remove these directly before actuator linking.
- Protect valve of adverse weather conditions e.g. rain, splash water, or use dehumidification agents.
- Careful treatment prevents damages.

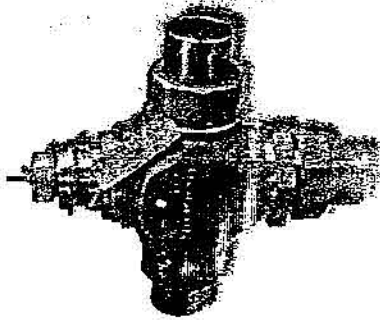
**• General installation information**

- In addition to general installation instructions, please observe the following points:
- Ensure that valve body and piping are free of impurities.
- Pay attention to position of the valve relative to the flow direction. Note arrows on valve body.
- Ensure installation without tension and torque.
- Do not use the valve as a stop or fixation point. Only piping supports it.
- Protect valve from dust or dirt on construction sites. Provide strainer or filter upstream of valve.
- Use compensators to balance thermal expansion of piping.
- Ensure that stem thread and shaft are kept free of paint.

**ZD7000 Series  
Union Sweat Control Valve**

**• General Features**

This installation sheet comprises the prescribed instructions for safe installation and operation of the valve. In the event of difficulties, which cannot be overcome with the aid of this installation sheet please consult the supplier. This installation sheet conforms to the relevant and valid EN safety standards, as well as the current laws and regulations of the European Union. It is the responsibility of the operator or system administrator to ensure that valid national control standards are met. The manufacturer maintains all rights for technical changes and improvements at any time. Qualified personnel (see reference) are necessary to the application of this installation sheet. Operating personnel shall receive installation sheet.



**• Qualified personnel**

- These are persons conversant with installation, mounting, commissioning, operation and servicing of the product, through their activities and functions, such as:
- Instructors with obligation to ensure adherence to regional and internal ordinances and requirements.
- Trainers and instructors on safety standards, maintenance and utilisation of adequate safety and protective equipment facilities.
- Trainers in first aid, etc.

**• Application**

The ZD7000 - Control Valve serves to regulate the flow of water in heating, ventilation, and air-conditioning systems. There are, however, differences in water composition. Normal tap water can usually be used without further preparation, as long as it remains in a closed system and it has, after a while, chemically settled. When, however, due to water loss the system is constantly being refilled, then the water must be treated. Recommendations are contained in guideline VDI 2035. Usage of other fluids is possible but must be confirmed by the manufacturer. Selection and adaptation of materials has been made in compliance with current EN and ANSI regulations. Mechanical and flow characteristics are in conformance with EN 12516-3 and EN 60534-2-4 standards. The area of valve application is the responsibility of the system administrator. Specific valve identifications must be observed. Electric Control valve actuators are available for the regulation. These can be supplied individually or tested and mounted on to this valve.