

**Installation:**

- Warning:** - Installation, operation and maintenance should be done only by qualified personnel.  
- Disconnect supply voltage before working on the valve and make sure, that it is impossible to switch the power on unintentionally (death and injury hazards)  
- It is not permitted to work on the valve body and to exchange the actuator as long as the valve is subjected to pressure and temperature.  
- Crushing and injury hazard because of rotating and moving parts



The mounting site should be easily accessible and have sufficient clearance for maintenance and for removing the actuator. Ensure that the pipe line axes are flush and connection flanges are parallel. Provide suitable measures to absorb possible tensile and pressure forces. The valve must not serve as a fixed point. It must be carried by the piping.

Clean pipelines thoroughly prior to installing the control valves in order to avoid damage through residual installation material, welding beads or forging scale. If possible, provide a dirt trap in front of each control valve.

Installation position should be vertical to horizontal. Ensure that the installation direction is correct (directional arrows of the flow on the valve housing). Observe a 10 x DN spacing to flanges, elbows, etc., to avoid an impaired valve function.

Remove flange covers before the installation. Use suitable handling and lifting equipment for installing the valve (see corresponding data sheet for the weights).

Regard the permitted max. operating pressure and temperature as described in the corresponding valve data sheet.

Observe the ambient temperature limits (-20...+60°C)

For higher temperatures insulate the pipeline, provide conductive plates or cooling possibilities.

When using valves outdoors, in environments with high temperature fluctuations or high humidity or by temperatures near or below the freezing point, we suggest a heating resistor be fitted to prevent the buildup of condensation within the enclosure.

If the valves are installed outdoors, check the correct assembly of the actuator hood, specially the gaskets. By direct climatic influences an additional coverage or best-case a housing as protection for the actuator is necessary.

Retighten the screws of all flange connections (also cover and connection piece flanges) prior to commissioning/start-up and following initial heat-up.

**Electrical connection:**

Check supply voltage according to the rating plate, loosen screws on the actuator hood and remove hood.

Route signal and control lines separately from high-voltage lines, if necessary, run in screened cables. Insert cables (1.5 mm<sup>2</sup>) through a twisting sleeve or cable gland.

Perform electrical connection with the supply voltage switched off according to the connection diagram (observe VDE, EVU and regional electrical regulations).

*In the event of deviations, the connecting diagram in the actuator hood has precedence.*

**Maintenance:**

Following the initial temperature and pressure load, retighten the screws of all flange connections (also cover and connection piece flanges), the valve cone should be located in the centre.

- Warning:** - Never loosen the lid and flange screws as long as the fittings are subjected to pressure and temperature.



Protect valve spindle against soiling, if necessary, clean it in order to protect stuffing boxes and PTFE-V-rings against increased wear.

Retighten stuffing box seals slightly in the event of leaks.

No further maintenance work is required for fittings with PTFE-V-rings or bellows.

Undertake maintenance on the actuator in accordance with the corresponding information in the separate operating instructions.