



## Installation and operating manual for pneumatic control valves

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## Installation:

Attention: - Installation, operation and maintenance should be done only by qualified personnel.



- Disconnect pressure air supply before working on the valve and make sure, that it is impossible to connect it unintentionally (injury hazard)
- 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 moving parts
- Observe corresponding operating manuals for installed accessories

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), if necessary, provide a drive heater at lower temperatures and for higher temperatures insulate the pipeline, provide conductive plates or cooling possibilities.

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

## Pneumatic connection:

The air supply pressure has to be set according to instruction on the nameplate by means of a reducing unit. For protection of actuators, the reducing unit should be combined with filter unit.

The pneumatic supply tube has to be connected to the free thread connection on the pressure side of the actuator. The thread connection on the opposite spring side of the actuator is protected with the sealing and vent cap. The cap must not be removed, the vent hole must not be closed.

By operating mode "spring closes", the pneumatic connections are situated by three way valves with mixing plug on the upper side of the actuator, by two way valves and by three way valves with diverting plug on the lower side of the actuator.

This is reverse by operating mode "spring opens".

The proper mounting side for pneumatic connection can be controlled with stroke indicator: position without air supply up: pneumatic connection up, position without air supply down: pneumatic connection down

## Maintance:

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.

Attention: - 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.

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