

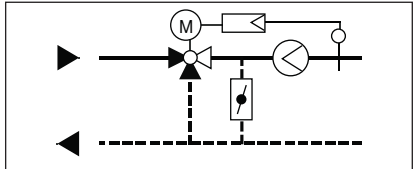
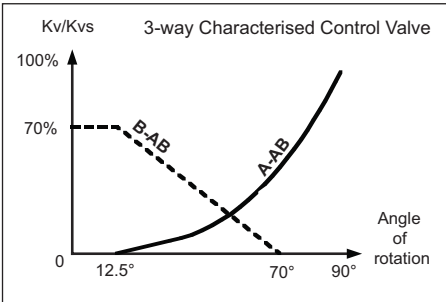
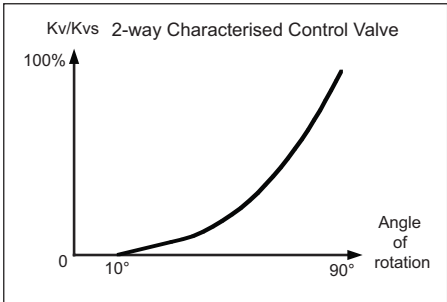
Standard directions of flow			
Characterised Control Valves 	 Open	 Closed	2-way R2..AC, R6..AO
	 A-AB Open	 A-AB Closed	3-way R3..AC
Open/Close Ball Valves 	 Open	 Closed	2-way R2..AC, R6..AO
	 A-AB Open	 A-AB Closed	3-way R3..AC
Spindle position for corresponding valve flow			For 2-way and 3-way Ball Valves
Actuator position corresponding to Ball Valve flow direction			

Flow characteristics of Characterised Control Valves

Between 0° and 12.5° angle of rotation, 2-way and 3-way Characterised Control Valves function as tight-sealing shut-off devices. Between 12.5° and 90° angle of rotation, Control Ball Valves operate

as regulating devices. In case of the 3-way Characterised Control Valve, the bypass flow rate (B-AB) is 70% of the nominal flow rate (A-AB).

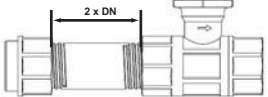
Note: Due to its spherical design, the 3-way Characterised Control Valve is of limited application for conventional supply temperature control systems only. Therefore, it is recommended that supply temperature control systems are of the double-mixing circuit type (see diagram below). There are no restrictions when using mixing-type circuits for air preheaters and for injection circuits.



Mounting, installation and commissioning

Separate supply
When Ball Valve and Rotary Actuator are supplied separately, they can be assembled on-site.

Recommended straight pipe installation
It is a general recommendation to keep minimum 2xDN of straight piping distance before the CCV installation in the pipe, to perform the best control function. For the outlet side of the CCV, there is no requirement to keep the minimum distance of straight pipe.



Recommended mounting positions
The Ball Valves can be mounted vertically (Fig. 1) or horizontally (Fig. 2). However, mounting the Ball Valves with the spindle pointing downwards, i.e. upside down (Fig. 3), is not recommended.



No special tools are needed for assembly. Instructions will be found packed with the valve and actuator.

Commissioning
Must not be carried out until the Ball Valve and Rotary Actuator have been assembled in accordance with the instructions.