Characterized control valves, 2-way, with flange PN 16

- **for closed cold and warm water systems**
- **for modulating control on the water side of air-handling and heating systems**
- **air bubble-tight**

Type overview

Type	k_{vs} [m^3/h]	DN [mm]	DN [Inches]	p_s [kPa]	n(gl) [1]	S_v
R6065W63-S8	63	65	2 1/2"	1600	3.2	>100
R6080W100-S8	100	80	3"	1600	3.2	>100
R6100W160-S8	160	10	4"	1600	3.2	>100
R6125W250-S8	250	125	5"	1600	3.2	>100
R6150W320-S8	320	150	6"	1600	3.2	>100

[1] optimized in the opening range

Technical data

Functional data	Flow media	Cold and hot water, water with max. 50% volume of glycol
	Temperature of medium	+5°C ... +120°C (–10 .... +5°C on request)
	Rated pressure p_s	see «Type overview»
	Flow characteristic	Control path A – AB: equal percentage (to VDI/VDE 2178) n(gl): see «Type overview»
	Rangeability S_v	See «Type overview»
	Leakage rate	A: air bubble-tight (to EN12266-1)
	Pipe connector	Flange PN 16 (to EN 1092/1)
	Differential pressure Δp_vmax Closing pressure Δp_s	400 kPa 600 kPa
	Angle of rotation	90°∢ (Operating range 15 ... 90°∢)
	Installation position	Upright to horizontal (in relation to the stem)
	Maintenance	Maintenance-free
Materials	Fitting	EN-JL1040 (GG25 paint)
	Valve ball	Stainless steel AISI 316
	Stem	Stainless steel AISI 304
	Stem seal	EPDM Perox
	Ball seat	PTFE
	Characterizing disk	Stainless steel
Dimensions / Weights	see «Dimensions and weights», page 3	
Motorizing	see the complete overview of water solutions	

Safety notes

- **The valve has been designed for use in stationary heating, ventilation and air conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.**
- **It may only be installed by suitably trained personnel. All applicable legal or institutional installation regulations must be complied with.**
- **The valve does not contain any parts that can be replaced or repaired by the user.**
- **The valve is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.**
- **The recognized rules should be applied when determining the flow characteristic of final controlling elements.**

Product features

Mode of operation

The characterized control valve is operated by a rotary actuator. The actuator is controlled by a standard modulating or 3-point control system and moves the ball of the valve – the throttling device – to the opening position dictated by the control signal. Open the ball valve counterclockwise and close it clockwise.

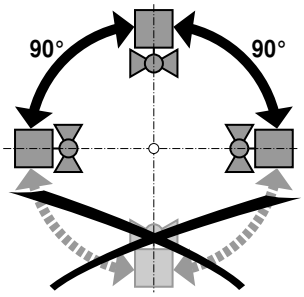
Flow characteristic

Equal-percentage characteristic of the flow rate ensured by the integral characterizing disc.

Installation notes

Recommended mounting positions

The valve may be mounted either **vertically** or **horizontally**. It is not permissible, mounting the valve with the stem pointing downwards.



Water quality requirements

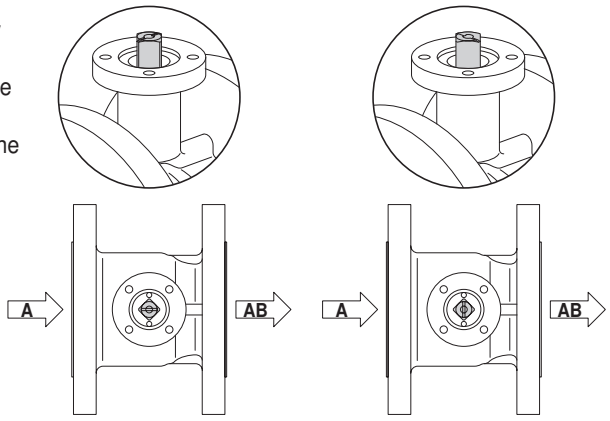
- The water quality requirements specified in VDI 2035 must be adhered to.
- Characterized control valves are relatively sensitive control devices. In order to ensure a long service life, it is advisable to fit **strainers**.

Maintenance

- The characterized control valves and rotary actuators are maintenance-free.
- Before any kind of service work is carried out on actuator sets of this type, it is essential to isolate the rotary actuator from the power supply (by unplugging the power lead). Any pumps in the part of the piping system concerned must also be switched off and the appropriate isolating fittings closed (allow everything to cool down first if necessary and reduce the pressure in the system to atmospheric).
- The system must not be returned to service until the ball valve and the rotary actuator have been properly reassembled in accordance with the instructions and the pipework has been refilled in the proper manner.

Direction of flow

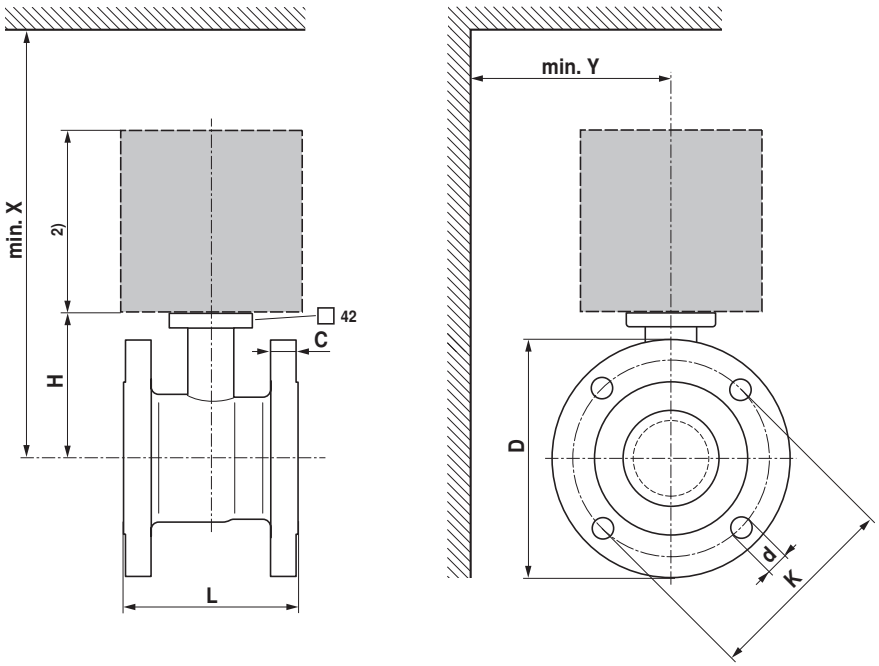
The direction of flow, specified by an arrow on the housing, is to be complied with, since otherwise the ball valve can be damaged. Please ensure that the ball is in the correct position.



A → AB = 100% A → AB = 0%

Dimensions and weights

Dimensional drawings



DN [mm]	L [mm]	H [mm]	D [mm]	C [mm]	K [mm]	d [mm]	X 1) [mm]	Y 1) [mm]	Weight [kg]
65	136.5	113	185	20	145	4 x 19	311	150	11
80	167.5	113	200	20.5	160	8 x 19	311	150	14.5
100	211	137	229	22	180	8 x 19	330	175	22
125	262.5	156	254	22	210	8 x 19	350	200	32.8
150	315	156	282	22	240	8 x 24	350	200	43

1) Minimum distance with respect to the valve centre.
2) The actuator dimensions can be found on the respective actuator data sheet.

Further documentations

- Complete overview «The complete range of water solutions»
- Data sheets for actuators
- Installation instructions for ball valves and/or actuators
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance etc.)

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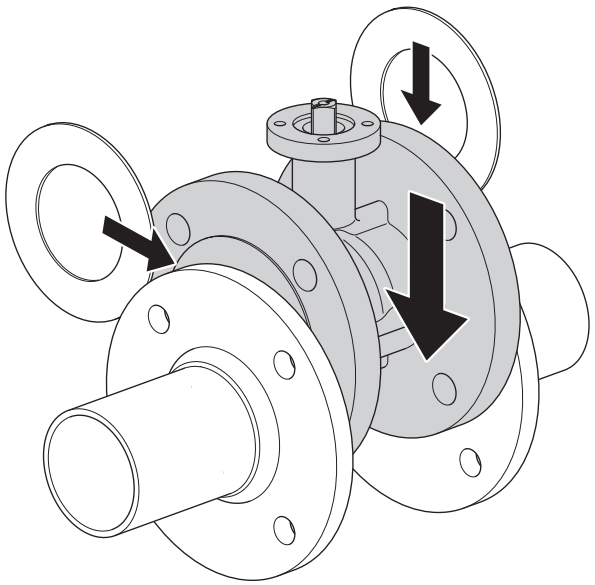

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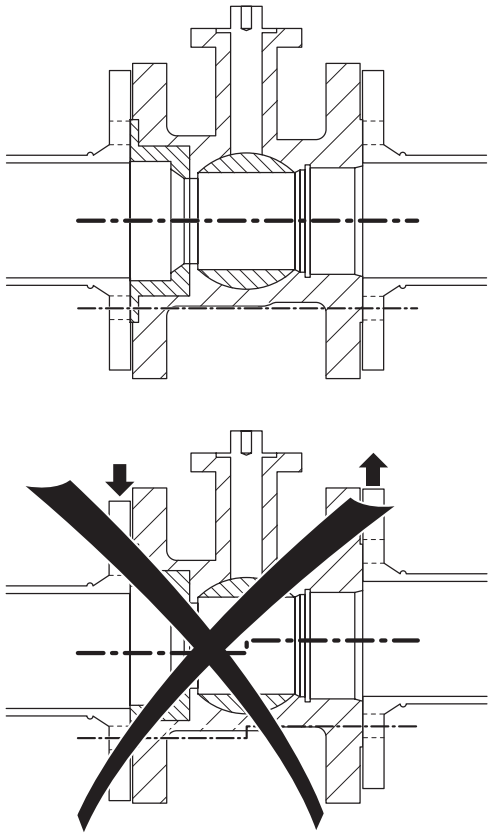

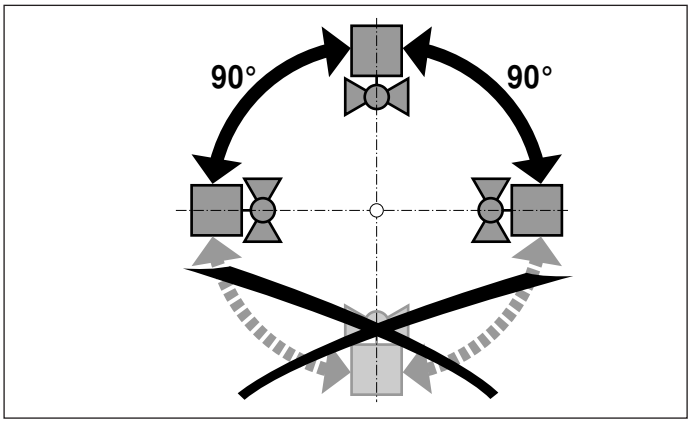

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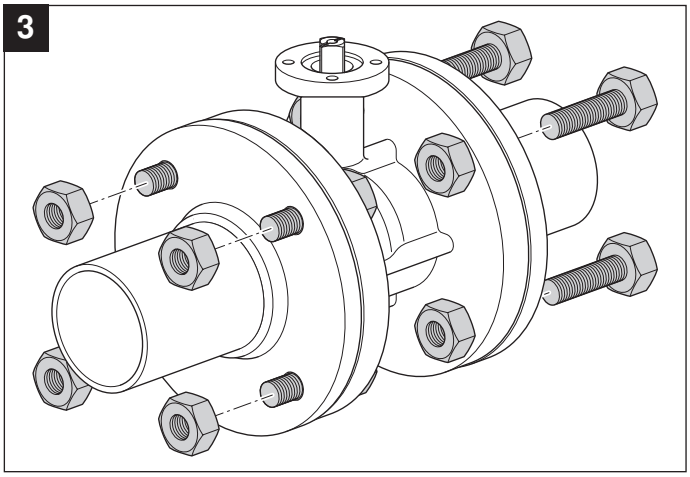

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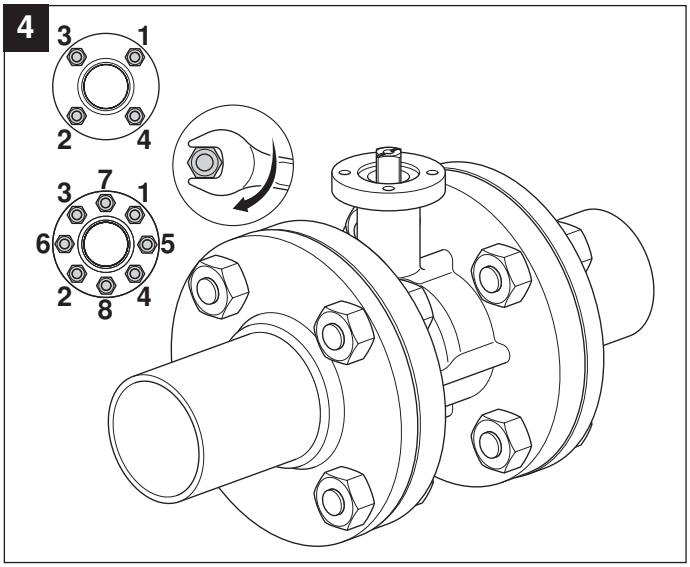

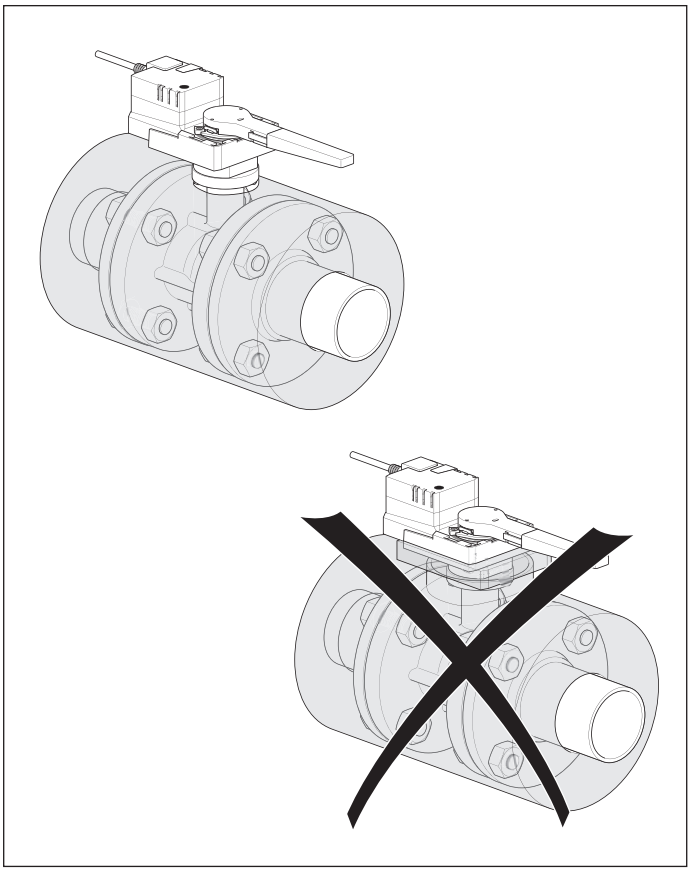

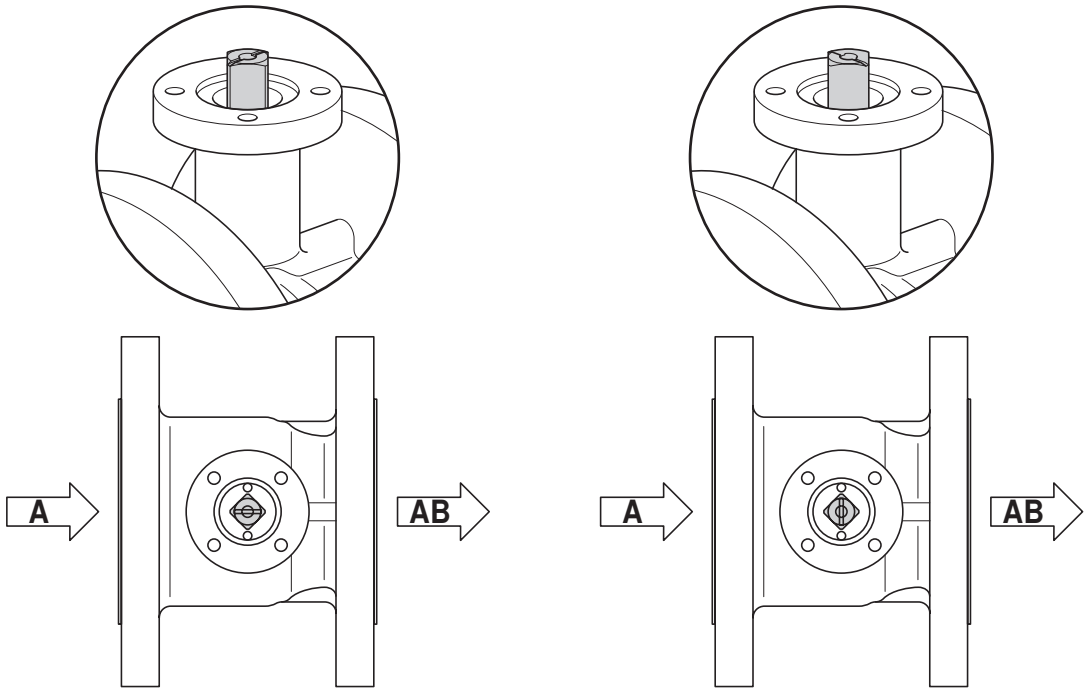

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