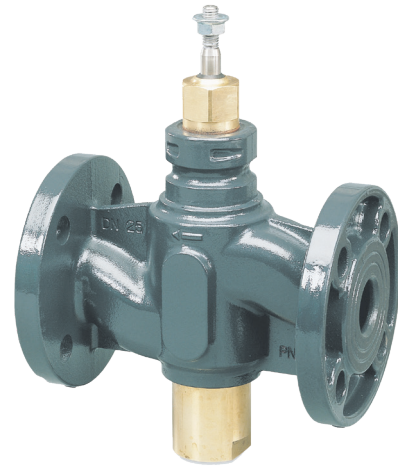


SpaceLogic V212

Two-way Pressure Balanced Globe Valve, PN 16



Product Description

V212 can be used in a wide range of applications, such as heating, cooling, air handling and domestic hot water systems. The valve can handle the following types of media:

- Hot and chilled water.
- Water with antifreeze additives such as glycol.

Specifications

Design	Two-way pressure globe valve
Pressure class	PN 16
Flow characteristic	EQM
Stroke	20 mm
Rangeability Kvs/Kv_{min}	>50
Leakage	Tight sealing
ΔP_m	400 kPa, water
Max. temperature of medium	120 °C
Min. temperature of medium	-20 °C
Connections	Flange according to ISO 7005-2
Materials	
Body	Nodular iron EN-JS 1030
Stem	Stainless steel SS 2346
Plug	Brass CW602N
Plug Seal	EPDM
Seat	Nodular iron EN-JS 1030
Gland seals	EPDM
Pressure Equipment Directive (PED)	2014/68/EE, Article 4.3

Note: It is the responsibility of the installer or product specifier to verify media compatibility of the valves construction materials with the supplier of water treatment/heat transfer solution.

Available Part Numbers

Size		Kvs (m ³ /h)	Part number
DN	in.		
32	1¼"	16	721 1236 000
40	1½"	25	721 1240 000
50	2"	38	721 1244 000

- The rangeability is the ratio of Kvs and Kv_{min} .
- Kvs is the flow through the valve in m³/h at the specified full valve lift and at a pressure drop of 100 kPa across the valve.
- Kv_{min} is the minimum controllable flow (m³/h) at a pressure drop of 100 kPa within the range in which the valve characteristics conform to the slope requirements of IEC 60534.

Recommendations

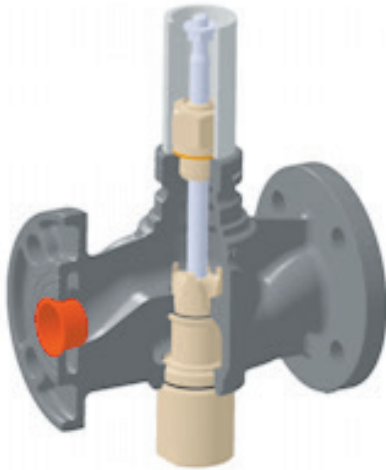
- If the valve is used for media at temperatures below 0 °C, it should be equipped with a stem heater in order to prevent ice formation on the valve stem.

Spare Parts

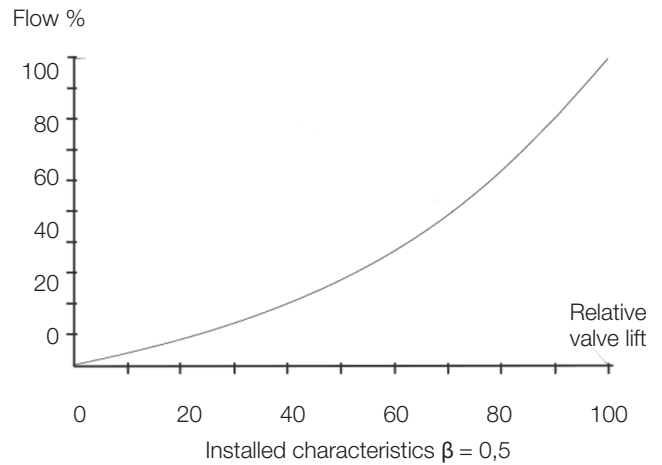
Description	Part No.
Stuffing box: Standard type S max 150 °C	1 001 0800 0

Design and Characteristics

The V212 uses a patented design to balance the internal operating pressures. This means that only a moderate force is required to operate the valve. The design will also efficiently handle solid particles in the fluid. The plug is guided throughout the full stroke lift, which reduces the risk for vibrations. The valve closes with the stem up. The flow characteristics of the V212 is equal percentage modified.



Flow Characteristics Chart



Cavitation

Cavitation takes place in a valve when the velocity of the fluid media over the plug and seat increases to such an extent that gas bubbles are created.

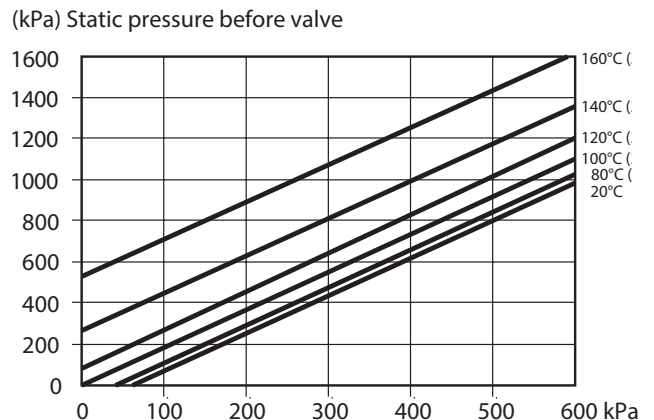
As the fluid passes over the seat and the velocity decreases, these gas bubbles collapse (implode), generating considerable noise and erosion to the valve trim.

The cavitation diagram provides guidance as to the cavitation zone where this phenomae will exist.

Chart usage:

- Using the y-axis, static pressure before the valve (e.g. 1000 kPa), plot the horizontal line to the line for the temperature of the liquide (e.g. 120 °C).
- From the intersection point, plot a vertical line downwards and read off the max.permissible pressure drop across the valve.
- If the computed pressure drop exceeds the value from the diagram, there is risk for cavitation.
- As a rule of thumb, to ensure the cavitation zone is not reached, the fluid velocity must be below 2 m/s.

Pressure Drop Chart at the Beginning Of Cavitation



Actuator Selection

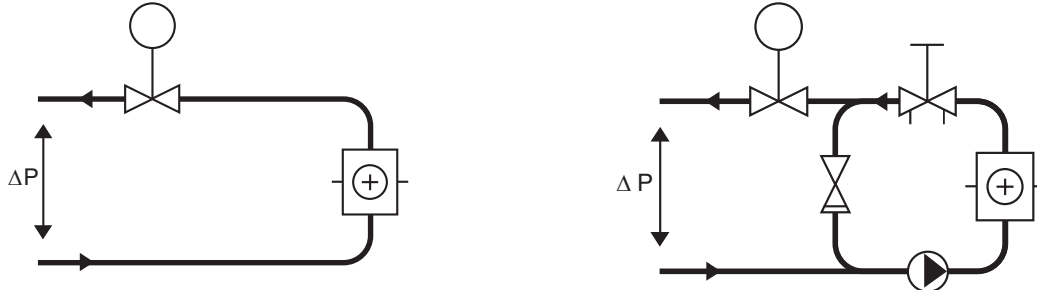
The ability to close at various differential pressures depends on valve size and available stem force. The later is determined by the selected actuator. The table shows performances for different actuator/valve combinations.

ΔP_c = Permissible pressure differential when the valve is closed.

Connection	M800 ΔP_c	M400 ΔP_c
DN	kPa	kPa
32	1600	750
40	1600	700
50	1600	600

Installation

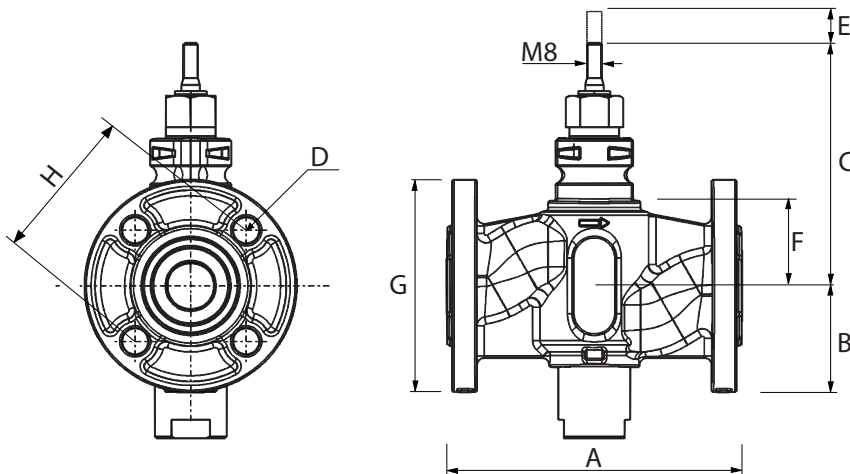
The valve should be mounted with flow direction in accordance with the valve marking. It is recommended to install the valve in the return pipe, in order to avoid exposing the actuator to high temperatures. Do not mount the actuator below the valve. To ensure that suspended solids will not become jammed between the valve plug and seat, a filter should be installed upstream of the valve, and the pipe system should be flushed before the valve is installed.



A. Typical installation without local circulating pump. To provide a good function, the pressure drop across the valve should be no less than half of the available pressure (ΔP). This corresponds to a valve authority of 50%.

B. Typical installation with local circulating pump. The Kvs value of the valve is to be selected so that the entire available pressure drop (ΔP) falls across the control valve.

Dimensions And Weight



Part Number	Conn. DN	Dimensions (mm)								Weight (kg)
		A	B	C	D	E	F	G	H	
721 1236 000	32	180	87.5	144.5	4x19	20	59.5	140	100	5.0
721 1240 000	40	200	83.5	146	4x19	20	61	150	110	6.1
721 1244 000	50	230	99.5	161	4x19	20	76	165	125	8.3

Flow and Pressure Drop Chart

