

Dymanic pressure independent control valves with threaded connections

VSX..PB/VSXT..PB pressure independent balancing & control valves can be used in heating and cooling systems in applications with Fan Coil Units, Chilled Beams or other terminal units applications. VSX..PB/VSXT..PB valves provide modulating control with full authority regardless of any fluctuations in the differential pressure of the system.

VSX..PB/VSXT..PB valves combine an externally adjustable automatic balancing valve, differential pressure control valve and a full authority modulating control valve.

VSX..PB/VSXT..PB valves make it simple to achieve 100% control of the water flow in the building, while creating high comfort and energy seving at the same time. An additional benefit is that no balancing is required if further stages are added to the system, or if the dimensioned capacity is changed.

Energy saving is due to optimal control, lower flow and pump pressure. Maximized ΔT is due to faster response and increased system stability.

Model	PN	Connection	Dimensions	Stroke [mm]	Min. flow [l/h]	Max. flow [l/h]	Max. differential pressure [kPa]		
VSX03PB	25	G1/2"	DN10	2.5	30	200	600		
VSXT03PB				5	65	370			
VSX05PB		G3/4"	DN15	2.5	100	575			
VSXT05PB				5	220	1330			
VSX06PB		G1"	DN20	2.5	100	575			
VSXT06PB				5.5	330	1800			
VSX03PBP*		25	G1/2"	DN10	2.5	30		200	800
VSXT03PBP*					5	65		370	
VSX05PBP*			G3/4"	DN15	2.5	100		575	
VSXT05PBP*					5	220		1330	
VSX06PBP*	G1"		DN20	2.5	100	575			
VSXT06PBP*				5.5	300	1800			
VSXT07PBP*	G1 1/4"		DN25	5.5	600	3609			
VSXT08PBP*	G1 1/2"		DN32	5.5	550	4001			
VSXT09PBP*	G1 1/2"F		DN40	15	1370	9500			
VSXT10PBP*	G2"F		DN50	15	1400	11500			

* VSX(T)..PBP: models with pressure plugs.

Valves with 2.5mm stroke: to be motorized by MCA24L, MCA230L, MVX52B actuators

Valves with 5 and 5.5mm stroke: to be motorized by MVT403S, MVT203S, MVT503S actuators. They can also be motorized by MCA24L, MCA230L, MVX52B actuators but in this case the actual max. flow is 75% of the max. flow values written in the spreadsheet above.

Valves with 15mm stroke: to be motorized by MVE_S actuators with 600N force



Dymanic pressure independent control valves with flanged connections

BV.. valves can be used in heating and cooling systems that require high flows together with an accurate control; they provide modulating control with full authority regardless of any fluctuations in the differential pressure of the system.

PICVs are 3 devices in one:

- Static Flow limiting valve: the flow of the fully open valve can be selected in a range from 30% to 100% by adjusting the dip-switches on the MVE515B and MVE215B actuators

- Globe Valve: the flow can be controlled from 0 up to the maximum set flow by moving the valve plug.

- Differential Pressure Controller with the main objective of keeping the pressure drop constant across the valve plug and consequently a flow control not dependent on differential pressure.

BV valves have an equipercentage characteristic.



Model	PN	P/T plugins	Connection	Stroke [mm]	Max. differential pressure [kPa]	Min. flow [l/h]	Max. flow [l/h]
BV50P	16	YES	DN50mm	20	600	1000	13000
BV65P			DN65mm			1900	21000
BV80P			DN80mm	2000		28000	
BV100P			DN100mm	6000		50000	
BV125P			DN125mm	6300		90000	
BV150P			DN150mm	8000		145000	

- Valve body:** ductile cast iron
- Valve trim:** stainless steel
- Valve stem:** stainless steel
- Membrane:** EPDM
- Leakage rate:** 0,02% of the Kvs
- Fluids:** chilled water, hot water, glycol (50% max.), from -10°C to 120°C.

BV valves are supplied with the proper actuator already assembled on the valve.

Suitable actuators:

- MVE515B - 3pos. & Proportional, 1500N, 24Vac/dc
- MVE215B - 3pos. & Proportional, 1500N, 230Vac
- MVE515RB and MVE215RB models with emergency fail safe function can also be used.

Dynamic balancing eliminates overflows, regardless of fluctuating pressure conditions in the system.

Compatible actuators and maximum flow rates (L/H)

PART# WITH P/T PLUGS	PART# WITHOUT P/T PLUGS	VALVE CONNECTION	Compatible actuators and maximum flow rates (L/H)			
			MCA230L MCA24L MVX52B	MVT203S MVT403S MVT503S	MVE206S MVE506S	MVE215B MVE515B
			ELECTRO-THERMAL 140N	ELECTRO-MECHANICAL 300N	ELECTRO-MECHANICAL 600N	ELECTRO-MECHANICAL 1500N
VSX03PBP	VSX03PB	1/2" M	200	-	-	-
VSXT03PBP	VSXT03PB	1/2" M	280	370	-	-
VSX05PBP	VSX05PB	3/4" M	575	-	-	-
VSXT05PBP	VSXT05PB	3/4" M	1000	1330	-	-
VSX06PBP	VSX06PB	1" M	575	-	-	-
VSXT06PBP	VSXT06PB	1" M	1350	1800	-	-
VSXT07PBP	-	1 1/4" M	2700	3600	-	-
VSXT08PBP	-	1 1/2" M	3000	4000	-	-
VSXT09PBP	-	1 1/2" F	-	-	9500	-
VSXT10PBP	-	2" F	-	-	11500	-
BV50P	-	DN50mm	-	-	-	13000
BV65P	-	DN65mm	-	-	-	21000
BV80P	-	DN80mm	-	-	-	28000
BV100P	-	DN100mm	-	-	-	50000
BV125P	-	DN125mm	-	-	-	90000
BV150P	-	DN150mm	-	-	-	145000