

HVAC CONTROL PRODUCTS

Valves

Pressure Independent Valves

VP1000

DN15...32, PN25
DN40...50, PN16

VP1000 Pressure Independent Control Valve is a combination of a differential pressure regulator and a regulating valve for flow adjustment.

VP1000 Valve allows to adjust the flow rate also in case of partial load of the system and it always ensures a stable adjustment of the supply connected to it. The differential pressure regulator corrects any differential pressure variation. This leads to a considerable reduction in temperature variations and adjustment movements and to the extension of the life of the moving devices connected to it.

VP1000 Valves offer a remarkable adjustment flexibility.

In combination with Johnson controls actuators they can be set to a specific flow rate value and they allow precise modulating control. The valves always guarantee a suitable flow rate, therefore avoiding too high energy consumption.

Since VP1000 Valve performs the functions of two valves (balancing and adjustment), the installation costs are considerably reduced. The automatic flow rate limitation eliminates system adjustment costs. Since adjustment is very easy to perform, design flow rates can be modified at any time and at low costs.

Since it is not necessary to adjust the valve after its installation, the valve can work immediately after it has been assembled, for example, on the floors where works are already finished.

In order to adjust the flow rate, just set the selected value using the adjustment knob.

Since flow rate is the only parameter to be considered, choosing the suitable valve is easy and fast. VP1000 Valve maximum adjustment matches the maximum flow rate allowed by the pipe size, on the basis of the values established by international standards.

Features

- K_{VS} calculation is not necessary
- Valve authority calculation is not required
- Specific devices or knowledge are not necessary
- Compact design that allows installing the valve also in small spaces such as fan-coils or narrow supply spaces
- Flow rate adjustment without disassembling the actuators



VP1000 Valve

VP1000 Ball Valve

Ordering Codes

VP1 0 X X XX

AA	= 150 l/h (DN15)
AE	= 600 l/h (DN15)
AG	= 780 l/h (DN15)
AJ	= 1000 l/h (DN20)
AN	= 1500 l/h (DN20)
AU	= 2200 l/h (DN25)
AW	= 2700 l/h (DN25 or DN32)
AY	= 3000 l/h (DN32)
BB	= 6000 l/h (DN40)
BC	= 9000 l/h (DN40)
BD	= 11000 l/h (DN40) or 12000 l/h (DN50)
BF	= 18000 l/h (DN50)
A	= 1/2"
B	= 3/4"
C	= 1"
D	= 1" 1/4
E	= 1" 1/2
F	= 2"
G	= 2" 1/2
0	= Pressure Port Included*
1	= No Pressure Port Included*
0	= Thread BSPP

Note

* On the DN50 Ball Valve, the pressure port are always included despite the Codes VP101xxx

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Technical Specifications for Axial Models

VP1000 Axial DN15 - DN20

	VP10xAAA	VP10xAAE	VP10xAAG	VP10xBAJ	VP10xBAN
Flow rate max.	150 l/h - 0,042 l/s	600 l/h - 0,167 l/s	780 l/h - 0,217 l/s	1000 l/h - 0,278 l/s	1500 l/h - 0,417 l/s
Accuracy 0 ÷ 1 bar	± 5%				
Start-up max.	20 kPa - 0,20 bar			25 kPa - 0,25 bar	
ΔP max.	600 kPa - 6 bar				
Leakage	Class IV IEC 60534-4				
Temperature	-10 ÷ 120 °C				
Working pressure max.	2500 kPa - 25 Bar				
Fittings	Female BSPP Rp ½" EN 10226-1			Female BSPP Rp ¾" EN 10226-1	

VP1000 Axial DN25 - DN32

	VP100CAU	VP100CAW	VP100DAW	VP100DAY
Flow rate max.	2200 l/h - 0,611 l/s	2700 l/h - 0,750 l/s		3000 l/h - 0,833 l/s
Accuracy 0 ÷ 1 bar	± 5%			
Start-up max.	25 kPa - 0,25 bar			
ΔP max.	600 kPa - 6 bar			
Leakage	0,01% of Flow Rate			
Temperature	-10 ÷ 120 °C			
Working pressure max.	2500 kPa - 25 Bar			
Fittings	Female BSPP Rc 1" EN 10226-1		Female BSPP Rc 1 ¼" EN 10226-1	

Assembly Codes

Following actuators are available

VA-707x ON/OFF Thermal *;

VA-709x Thermal 0...10 VDC *;

VA-748x Floating and Proportional Electric.

Note

* : (VA-707x and VA-709x are suitable for valves DN15 and DN20 only)

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VP1000

Technical Specifications for Ball Valves Models

VP1000 Ball Valves DN40 - DN50

	VP101DBB	VP101EBB	VP101EBC	VP101EBD	VP101FBD	VP101FBF	VP101GBF
Flow Rate max.	6000 l/h – 1,667 l/s		9000 l/h – 2,5 l/s	11000 l/h – 3,056 l/s	12000 l/h – 3,33 l/s	18000 l/h – 5,00 l/s	
Accuracy 0 ÷ 1 bar	± 5%						
Start-up max.	30 kPa – 0,30 bar		25 kPa – 0,25 bar	30 kPa – 0,30 bar		35 kPa – 0,35 bar	
ΔP max.	600 kPa – 6 bar				400 kPa – 4 bar		
Leakage	Class VI IEC 60534-4						
Temperature	-10 ÷ 120 °C						
Working Pressure max.	1600 kPa – 16 bar						
Fittings	Rc 1 ¼" Union Female EN 10226-1	Rc 1 ½" Union Female EN 10226-1		Rc 2" Union Female EN 10226-1			Rc 2 ½" Male EN 10226-1

Assembly Codes

Valves Codes	Description
+5A8GGA *	M9108-GGA-5, 8 Nm Non Spring Return Actuator, 24 V AC/DC, Proportional Control
+5A8GGC *	M9108-GGA-5, 8 Nm Non Spring Return Actuator, 24 V AC/DC, Proportional Control, two auxiliary switches
+538GGA	VA9208-GGA-1, 8 Nm Spring Return Actuator, 24 V AC/DC, Proportional Control, assembled in Spring Open Valve configuration.
+538GGC	VA9208-GGA-1, 8 Nm Spring Return Actuator, 24 V AC/DC, Proportional Control, two auxiliary switches, assembled in Spring Open Valve configuration.
+558GGA	VA9208-GGA-1, 8 Nm Spring Return Actuator, 24 V AC/DC, Proportional Control, assembled in Spring Close Valve configuration.
+558GGC	VA9208-GGA-1, 8 Nm Spring Return Actuator, 24 V AC/DC, Proportional Control, two auxiliary switches, assembled in Spring Close Valve configuration.

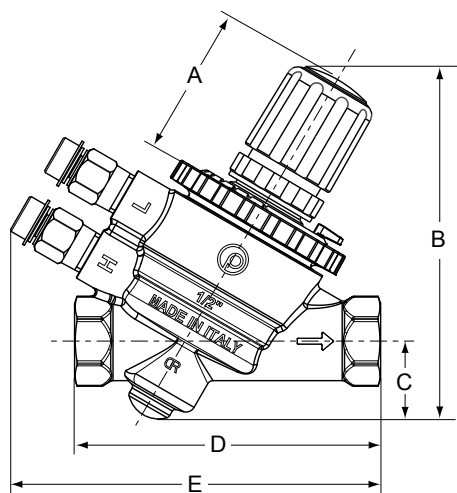
Note

* : The M9000-525-5 linkage is part of the assembly.

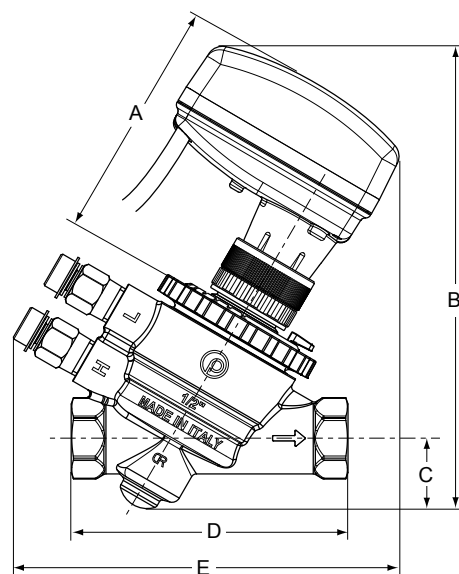
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Pressure Independent Valves VP1000

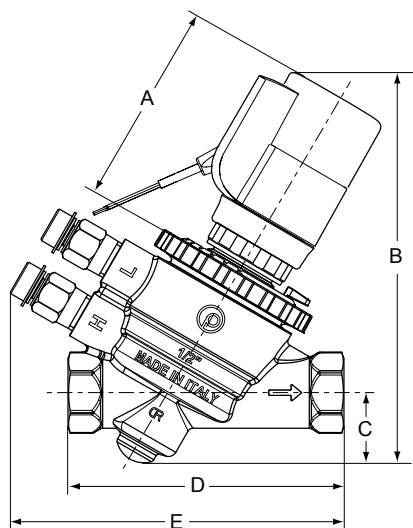
Dimensional data DN15 - DN20 (in mm)



Size	A	B	C	D	E
DN15	47	115	25	99	120
DN20				108	



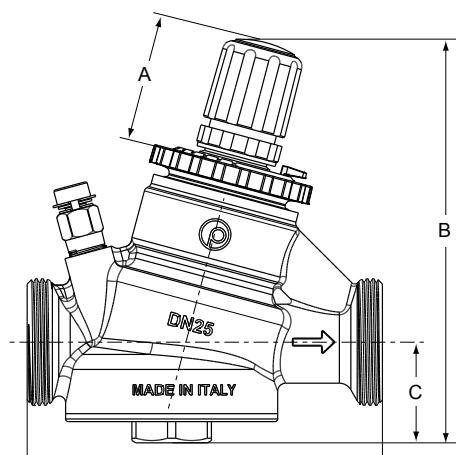
Size	A	B	C	D	E
DN15	80	166	25	99	130
DN20				108	



Size	A	B	C	D	E
DN15	75	143	25	99	127
DN20				108	

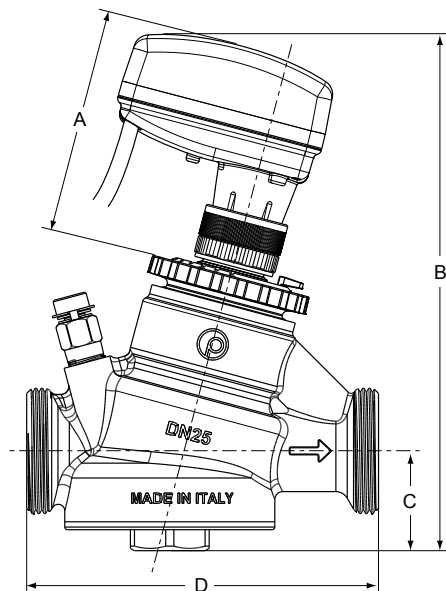
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Dimensional data DN25 - DN32 (in mm)



Size	A	B	C	D *
DN25	47	152	38	134
DN32				

* Dimensional data without fittings

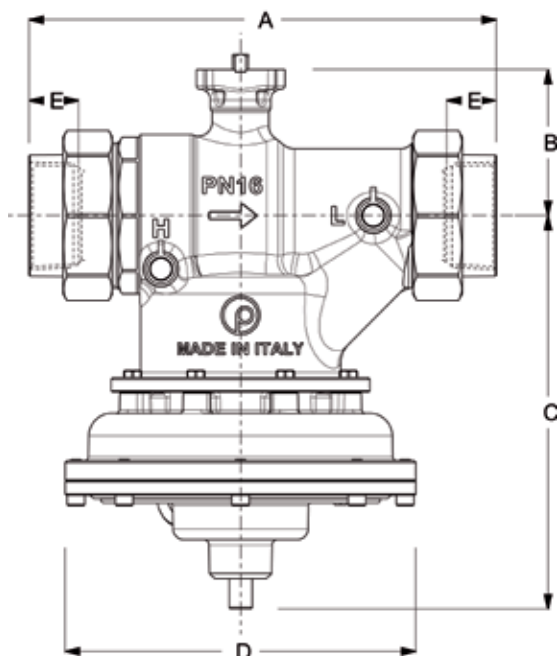


Size	A	B	C	D *
DN25	80	193	38	134
DN32				

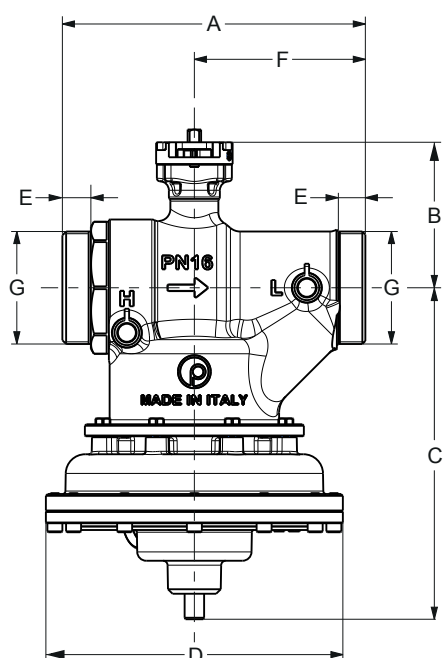
* Dimensional data without fittings

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Dimensional data DN40 - DN50 (in mm)



Art.	Size	A	B	C	D	E
VP101DBB	DN40	230	89	180	156	23.6
VP101EBB	DN40	230	89	180	156	23.6
VP101EBC	DN40	230	89	180	156	23.6
VP101EBD	DN40	230	89	180	156	23.6
VP101FBD	DN50	264	97	221	198	28
VP101FBF	DN50	264	97	221	198	28



Art.	Size	A	B	C	D	E	F	G ISO-228
VP101GBF	DN50	202	97	221	198	19	114	G 2.1/2"