

ACTUATORS AND VALVES

VALVES

PRESSURE INDEPENDENT VALVES

VP1000

DN15...32, PN25

DN40...50, PN16

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

The VP1000 valve allows the adjustment of the flow rate in case of partial load of the system and also 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 the extended life of moving devices connected to it.

The VP1000 valve offers complete adjustment flexibility. In combination with Johnson Controls actuators they can be set to a specific flow rate value and allow precise modulating control. The valve always guarantees a suitable flow rate, therefore avoiding high energy consumption.

Since the VP1000 valve performs the functions of two valves (balancing and adjustment), 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 cost.

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 floor 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 a suitable valve is fast and easy. The VP1000 valve's maximum adjustment matches the maximum flow rate allowed by the pipe size, on the basis of the values established by international standards.

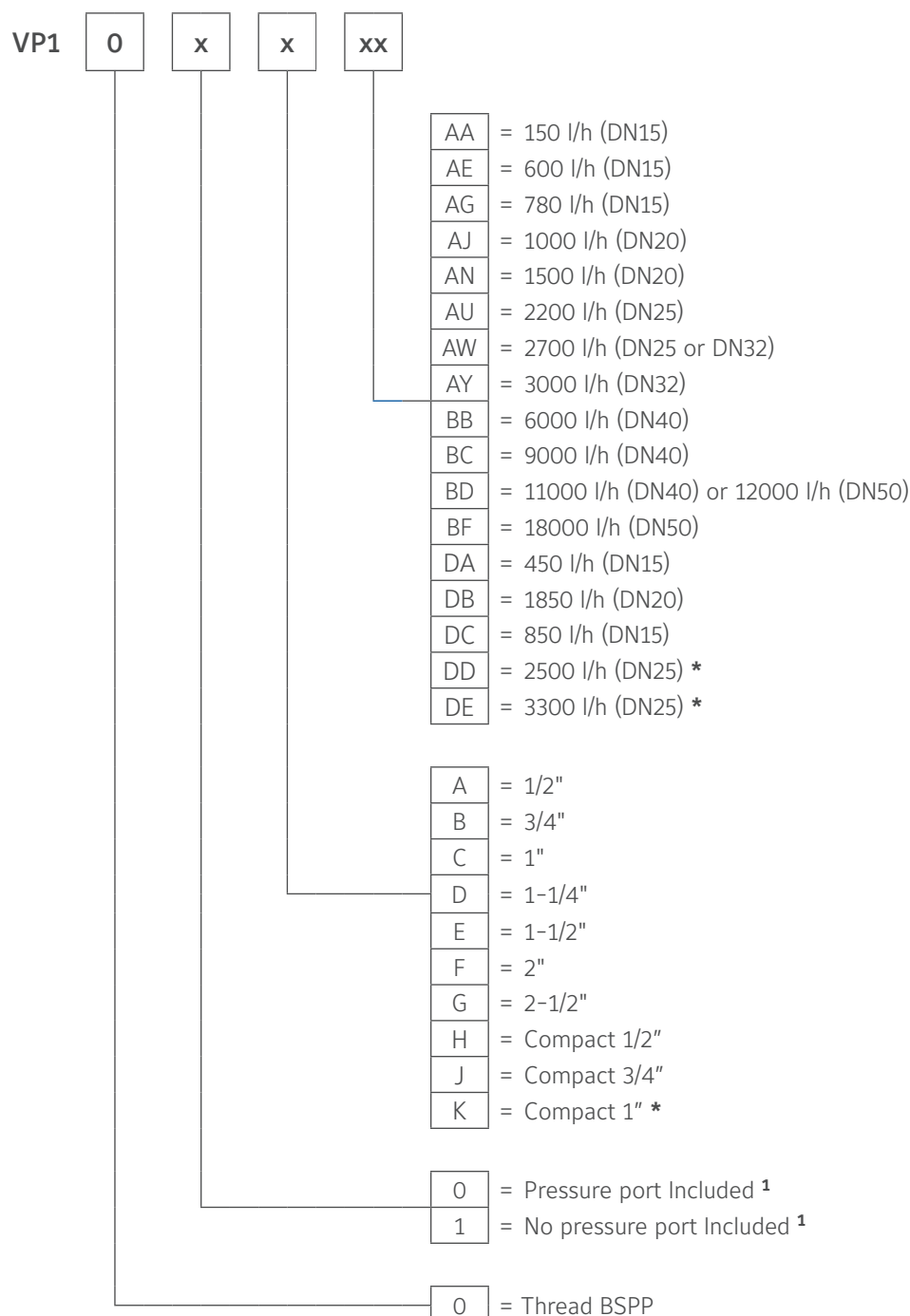
FEATURES

- K_{VS} calculation is not necessary
- Valve authority calculation is not required
- Specific devices or knowledge are not necessary
- Compact design that allows installation in small spaces such as fan-coils or narrow supply spaces
- Simple flow rate adjustment
- Dirty resistance allows long life characteristic





ORDERING INFORMATION



Note

¹ On the DN40, DN50 and DN65 Ball Valve, the pressure port are always included despite the Codes VP101xxx

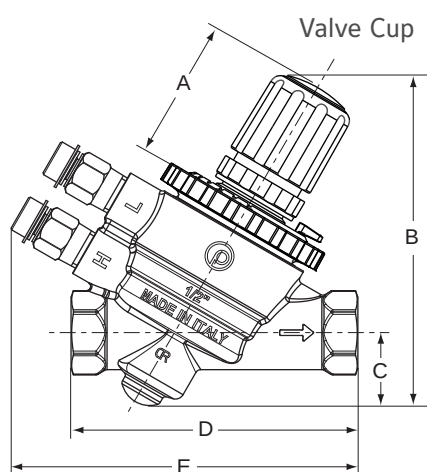
* New models available from March 2021

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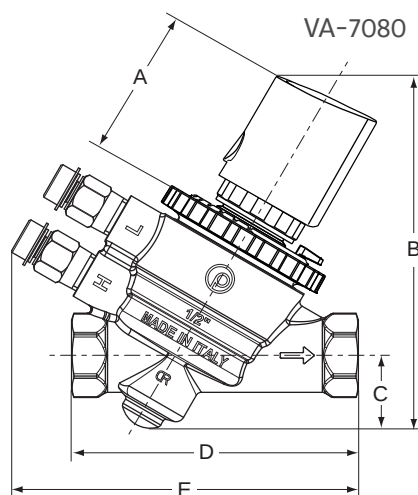
VP1000 - PRESSURE INDEPENDENT VALVES

DIMENSIONS (in mm)

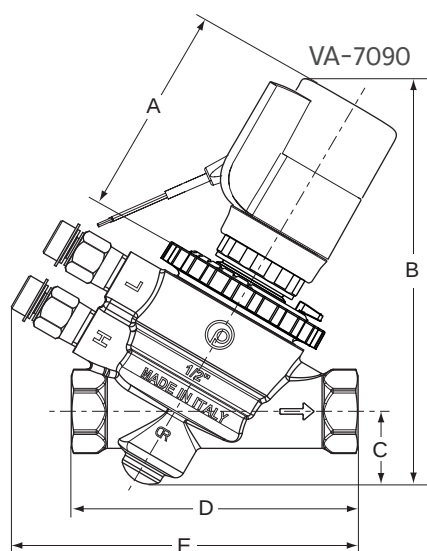
DN15 - DN20



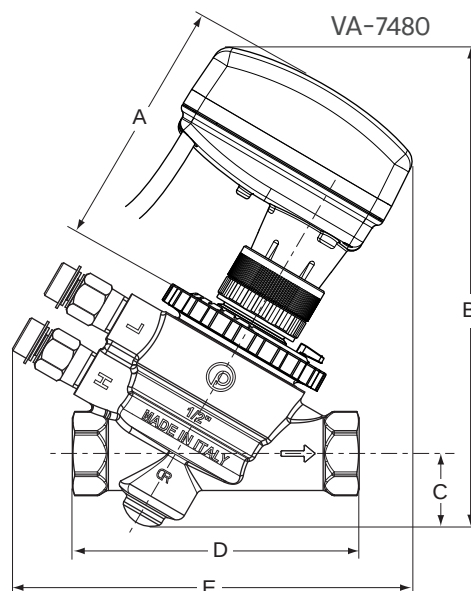
SIZE	A	B	C	D	E
DN15	47	115	25	99	120
DN20				108	127



SIZE	A	B	C	D	E
DN15	81.7	164	25	99	116
DN20				107.5	118.5



SIZE	A	B	C	D	E
DN15	75	144	14.5	80.5	124
DN20		149	17.5	98	130



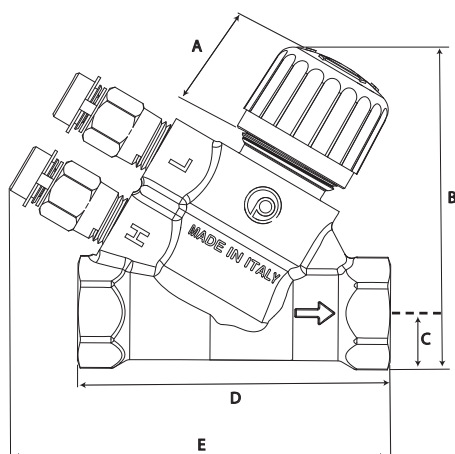
SIZE	A	B	C	D	E
DN15	80	144	14.5	80.5	124
DN20		149	17.5	98	130

VALVES

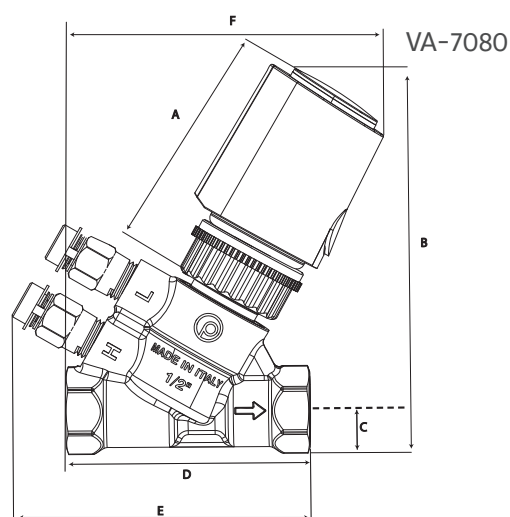
VP1000 - PRESSURE INDEPENDENT VALVES

DIMENSIONS (in mm)

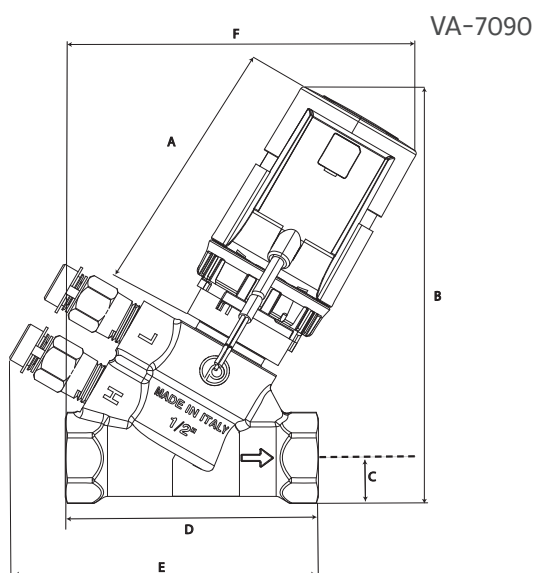
COMPACT DN15 - DN20



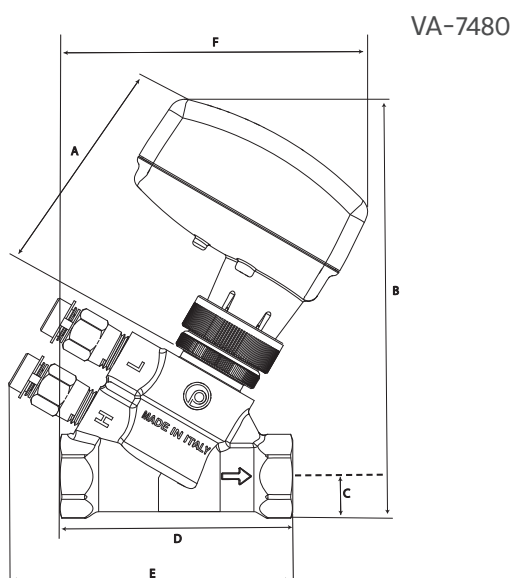
SIZE	A	B	C	D	E
DN15	28	83	14.5	80.5	95
DN15-VP10xHDC		85	14.5	93.5	110
DN20		88	17.5	98	118



SIZE	A	B	C	D	E	F
DN15	64.5	120	14.5	80.5	95	106
DN15-VP10xHDC		122	14.5	93.5	110	110.5
DN20		125	17.5	98	118	112.5



SIZE	A	B	C	D	E	F
DN15	74	127	14.5	80.5	110	106
DN15-VP10xHDC		129		93.5		110.5
DN20		132		98		112.5



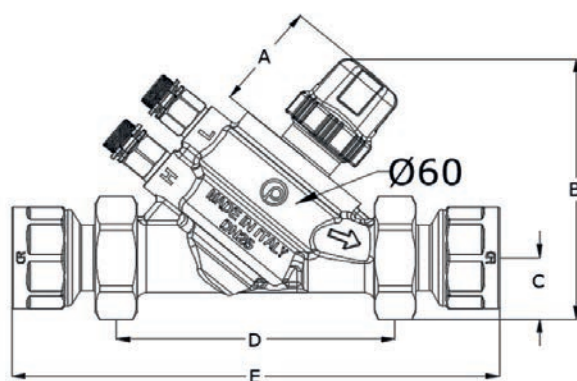
SIZE	A	B	C	D	E	F
DN15	80.5	145	14.5	80.5	110	106
DN15-VP10xHDC		147		93.5		110.5
DN20		150		98		112.5

VALVES

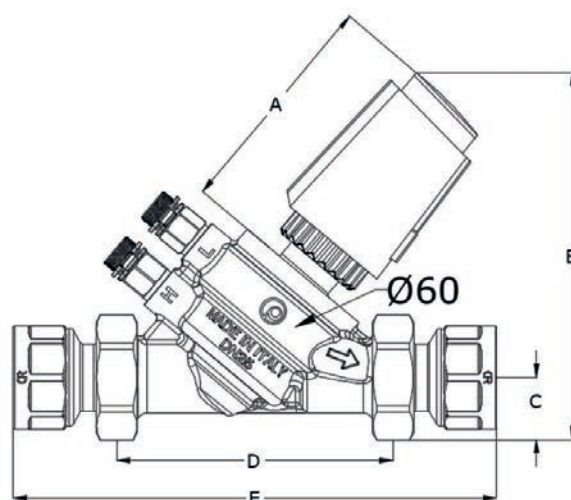
VP1000 - PRESSURE INDEPENDENT VALVES

DIMENSIONS (in mm)

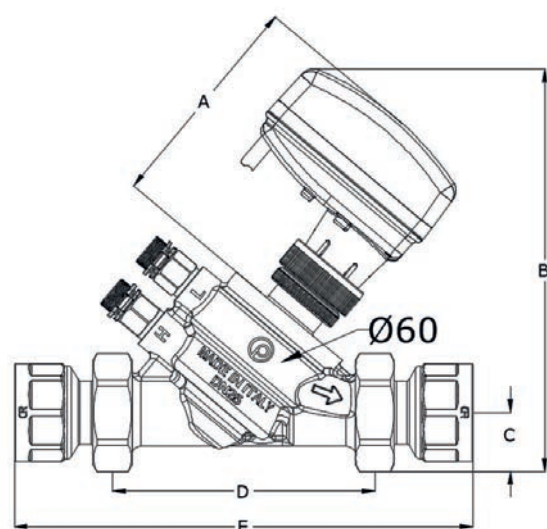
COMPACT DN25



SIZE	A	B	C	D	E
DN25	41	89.5	23.5	108	182



SIZE	A	B	C	D	E
DN25	86	138	23.5	108	182

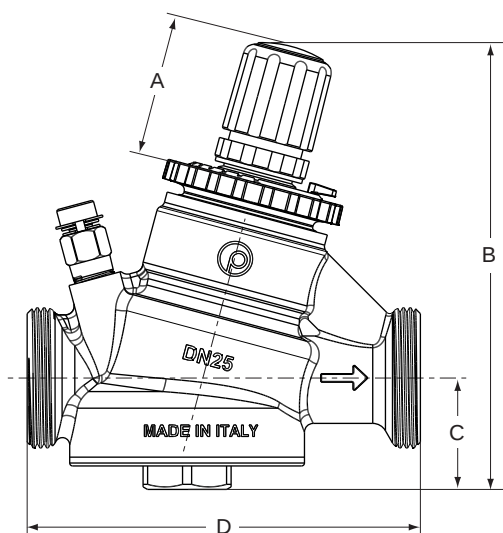


SIZE	A	B	C	D	E
DN25	87.5	160	23.5	108	182

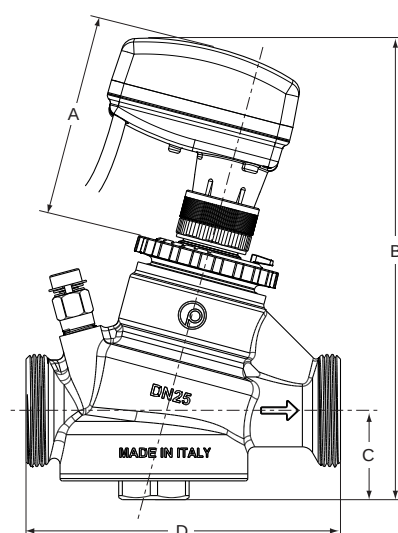


DIMENSIONS (in mm)

DN25 - DN32



SIZE	A	B	C	D ¹
DN25	47	152	38	184
DN32				209



SIZE	A	B	C	D ¹
DN15	83	196	38	184
DN20				209

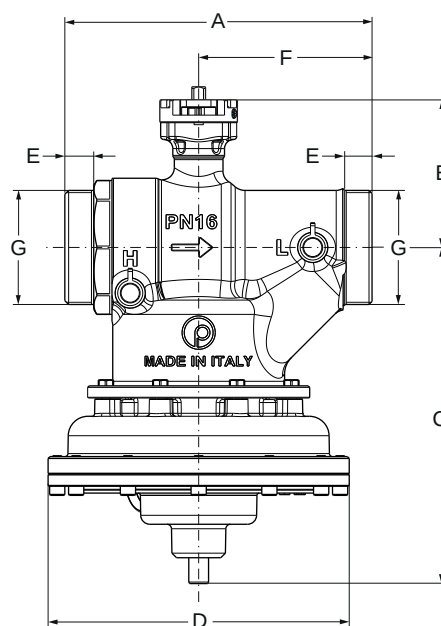
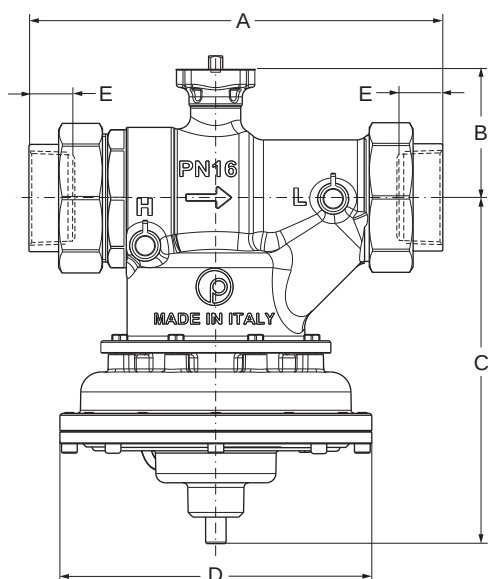
Note

1 Dimensional data without fittings



DIMENSIONS (in mm)

DN40 - DN50



CODES	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

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

VALVES

VP1000 - PRESSURE INDEPENDENT VALVES



TECHNICAL SPECIFICATIONS - COMPACT GLOBE AXIAL MODELS

DN15 - DN20

	VP10xHAA	VP10xHDA	VP10xHDC	VP10xJAJ	VP10xJDB
Flow rate max.	150 l/h - 0,042 l/s	450 l/h - 0,125 l/s	850 l/h - 0,236 l/s	1000 l/h - 0,278 l/s	1850 l/h - 0,514 l/s
Accuracy 0 ÷ 1 bar	± 5%				
Start-up max.	25 kPa - 0,25 bar	35 kPa - 0,35 bar	25 kPa - 0,25 bar	25 kPa - 0,25 bar	30 kPa - 0,30 bar
ΔP max.	600 kPa - 6 bar				
Leakage	Class IV - IEC 60534-4				
Temperature	-10 to 120°C				
Working pressure max.	2500 kPa - 25 bar				
Fittings	Female BSPP Rp 1/2" - EN 10226-1			Female BSPP Rp 3/4" - EN 10226-1	

DN25

	VP10xKDD	VP10xKDE
Flow rate max.	2500 l/h - 0,694 l/s	3300 l/h - 0,917 l/s
Accuracy 0 ÷ 1 bar	± 5%	
Start-up max.	30 kPa - 0,30 bar	
ΔP max.	600 kPa - 6 bar	
Leakage	Class IV - IEC 60534-4	
Temperature	-10 to 120°C	
Working pressure max.	2500 kPa - 25 bar	
Fittings	Rp 1" UnionF EN 10226-1	

ASSEMBLY CODES

Following actuators are available:

- VA-708x ON/OFF thermal *
- VA-709x thermal 0...10 VDC *
- VA-748x floating and proportional electric

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TECHNICAL SPECIFICATIONS - AXIAL MODELS

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	25 kPa - 0,25 bar	30 kPa - 0,30 bar	35 kPa - 0,35 bar
ΔP max.	600 kPa - 6 bar				
Leakage	Class IV - IEC 60534-4				
Temperature	-10 to 120°C				
Working pressure max.	2500 kPa - 25 bar				
Fittings	Female BSPP Rp 1/2" - EN 10226-1			Female BSPP Rp 3/4" - EN 10226-1	

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			35 kPa - 0,35 bar
ΔP max.	600 kPa - 6 bar			
Leakage	Class III - IEC 60534-4			
Temperature	-10 to 120°C			
Working pressure max.	2500 kPa - 25 bar			
Fittings	Female BSPP Rp 1" - EN 10226-1		Female BSPP Rp 1-1/4" - EN 10226-1	

ASSEMBLY CODES

Following actuators are available:

- VA-708x ON/OFF thermal *
- VA-709x thermal 0...10 VDC *
- VA-748x floating and proportional electric

Note

* VA-708x and VA-709x are suitable for valves DN15 and DN20 only



TECHNICAL SPECIFICATIONS - BALL MODELS

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						
Leakage	Class VI – IEC 60534-4						
Temperature	-10 to 120°C						
Working Pressure max.	1600 kPa – 16 bar						
Fittings	Rp 1-1/4" union Female EN 10226-1	Rp 1-1/2" union Female EN 10226-1		Rp 2" union Female EN 10226-1			Rp 2 1/2" Male EN 10226-1

ASSEMBLY CODES

CODES	DESCRIPTION
+510HGA ¹	VA9310-HGA-1, 10 Nm Non Spring Return Actuator, 24 V AC/DC, Proportional Control
+538GGA	VA9208-GGA-1, 8 Nm Spring Return Actuator, 24 V AC/DC, Proportional Control, assembled in Spring Open Valve configuration
+538GGC	VA9208-GGC-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-GGC-1, 8 Nm Spring Return Actuator, 24 V AC/DC, Proportional Control, two auxiliary switches, assembled in Spring Close Valve configuration

Note

¹ The M9000-525-5 linkage is part of the assembly.