

## USE

SS - VS series valves are used to control fluids belonging to the group showed in the table according to article 9 of 97/23/CE directive (PED) in air-conditioning, thermoventilation and heating plants and in industrial processes; therefore, they cannot be employed as safety valves.

## MANUFACTURING CHARACTERISTICS

They consist in a two-way simple seat valve body to be assembled on an electrical bidirectional actuator, driving mechanical connection with elastic pin and position indicator.



## TECHNICAL CHARACTERISTICS

Model	VSG DN 25÷150	SSGA DN15÷100	VSS DN25÷65	SSAA DN15÷80	SSAACP DN15÷80
Construction	PN 16	PN 16	PN 25	PN 40	PN 40
Body	cast iron	cast iron	spheroidal cast iron	steel	steel
Seat	cast iron	stainless steel	steel	stainless steel	stainless steel
Plug	forged brass	stainless steel	steel	stainless steel	stainless steel
Stem (Ø 9mm)	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
Control characteristic	equal percentage	equal percentage	equal percentage	equal percentage	equal percentage
Stem packing	Viton O-ring <sup>(4)</sup>	Teflon V-ring	Teflon V-ring	Teflon V-ring	<sup>(2)</sup>
Max fluid temperature °C	150	200	230	230	350
Min fluid temperature °C	-10 <sup>(1)</sup>	-10 <sup>(1)</sup>	-10 <sup>(1)</sup>	-10 <sup>(1)</sup>	-20 <sup>(1) (3)</sup>
Fluid (5)	Group 2	Group 2	Group 2	Group 2	Group 1
Connections	flanges PN 16	flanges PN 16	flanges PN 25	flanges PN 40	flanges PN 40
Leakage % of Kvs	0,03	0,02	0,02	0,02	0,02
Action	normally open	normally closed	normally open	normally closed	normally closed

<sup>(1)</sup> For applications with possible ice formation on stem and gasket, see 245 accessory.

<sup>(2)</sup> Graphite packing for high temperatures; forced lubrication on extended neck. Teflon gasket for low temperatures, see <sup>(3)</sup>

<sup>(3)</sup> For applications on fluids from -10 to -20 °C, add letter B to the model name, e.g. SSAACP50B. In such a case, the max. temperature is 230 °C.

<sup>(4)</sup> Double O-ring and graphited teflon scraper ring.

<sup>(5)</sup> Group 1: water, overheated water, steam, diathermic oil. For different fluids belonging to group 1, please contact our Sales Support.

Group 2: water, overheated water, steam. For different fluids belonging to group 2, please contact our Sales Support.

## MOTORIZED VALVES OPTIONS

### MODEL DESCRIPTION

**A150-2** flanges with ANSI 150 bolt holes (for SSAA valves)  
**A300-2** flanges with ANSI 300 bolt holes (for SSAA valves)

## ACCESSORIES

### MODEL DESCRIPTION

**245** stem heater for applications on -10 °C low temperature fluid with SH - ST - MVL actuators.  
**AG50** Adapter for VSG valves with MVF actuator (for 16,5-25 mm stroke)  
**AG51** Adapter VSG valves with MVF actuator (for 45 mm stroke) and SS/VSS (any stroke)

**MAX DIFFERENTIAL AND CLOSE-OFF PRESSURE (bar) \***

DN mm	Kvs			VSG					SSGA					VSS					SSAA			
	VSG	VSS	SS	SH/ST	MVL	MVLA/C**	MVF58	MVF515	SH	MVL	MVLA/C**	MVF58	MVF515	SH	MVL	MVLA/C**	MVF58	MVF515	MVL	MVLA/C**	MVF58	MVF515
15 R	--	--	1,6	-	-	-	-	-	16	16	16	16	16	-	-	-	-	-	30	30	30	30
15	--	--	4	-	-	-	-	-	16	16	16	16	16	-	-	-	-	-	30	20	20	30
20	--	--	6,3	-	-	-	-	-	16	16	14	16	16	-	-	-	-	-	30	12	11,5	29
25 R	4	4	--	10	10	10	12	16	-	-	-	-	-	20	20	10	24	25	-	-	-	-
25 I	6,3	6,3	--	10	10	10	12	16	-	-	-	-	-	18	20	10	12	22	-	-	-	-
25	10	10	10	10	10	10	12	16	16	16	9	10	16	16	20	10	12	22	20	7,5	7,5	18
32	--	16	16	-	-	-	-	-	16	16	9	10	16	12	14	6	8	14,5	20	7,5	7,5	18
40	25	25	24	7,5	9,5	3,5	6,6	12	10	13,5	5,5	6,8	13,5	8	10	4,5	5,8	10,5	13	4,5	4,9	12
40R	-	-	-	-	-	-	6,6	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	40	40	40	4,7	6	2,4	4,1	7,5	7	9	3,5	4,3	9	5,2	6,5	2,7	3,7	6,5	8	3	3	8
65	63	63	63	2,8	3,6	1,4	2,4	4,5	2,5	3,5	1,4	1,7	3,5	2,7	3,7	1,4	2	4	3,5	1	1,2	3
80	100	--	110	1,7	2,3	0,8	1,5	2,5	1,5	2,3	0,9	1,1	2	-	-	-	-	-	2,4	0,8	0,8	2
100	130	--	140	0,8	1,4	0,4	0,9	1,8	1	1,4	0,5	0,7	1,5	-	-	-	-	-	-	-	-	-
125	200	--	--	0,5	0,8	-	0,6	1,1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150	300	--	--	0,3	0,4	-	0,35	0,8	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**NOTE** In order to avoid wear between plug and seat, we recommend not to overcome the differential pressure as follows:

- VSG = 2 bar
- SSGA = 6 bar
- VSS = 8 bar
- SSAA = 12 bar

Kvs is the flow rate in m<sup>3</sup>/h of water at a temperature between 5 °C and 40 °C passing through a valve open at nominal stroke with 100 kPa (1 bar) differential pressure.

\* The values in brackets represent the max differential pressure the actuator can bear, in order to maintain the valve in closed position. When only one value is indicated, this corresponds to the max differential and close-off pressure.

\*\* **VS** valves: in emergency MVLA valve closed; MVLC valve open. **SS** valves: in emergency MVLA valve open; MVLC valve closed.

Note: The max operating pressures at different temperatures for various NP classes must correspond to the UNI 1284 table.

**ACTUATORS TECHNICAL CHARACTERISTICS, ELECTRICAL WIRING DIAGRAM AND INSTALLATION**

See SH - ST - MVL actuators data sheets and mounting instructions.

**INSTALLATION**

**HYDRAULIC CONNECTIONS**

Respect the fluid direction as indicated by the arrow on the valve body or, in case letters are used with inlet in A and outlet AB.

**VALVE MOUNTING**

Before mounting the valve, make sure pipes are clean, free from welding slags. The pipes must be perfectly aligned with the valve body and not subjected to vibrations. For installations on plants with high temperature fluids (steam, overheated water, diathermic oil) use expansion joints to avoid the dilatation of pipes to overload the valve body. Install the valves with the actuator in vertical position for fluid temperature up to 120°C; with higher temperatures they should be mounted horizontally.

The valves can also be mounted in any other position provided that the actuator main shaft is always horizontal. Leave sufficient room over the actuator, at least 10 cm., to allow the actuator disassembling from the valve body for eventual maintenance.

The actuator must not be installed in explosive atmosphere, at a room temperature higher than 50 °C and lower than -5 °C; they must not be subjected to steam or water jets or dripping.

Avoid the valve installation in plants which are considered aggressive and/or corrosive for valve materials. Please contact our Sales Support in order to define which potentially aggressive or polluting substances can be used. We disclaim all responsibility in case of valve failure due to external fortuitous events (fire, earthquakes etc.).

Notes: The actuator can be rotated with respect to the valve body by blocking the ring nut; after such operation re-tighten the ring nut.

Following the hydraulic installation it is necessary to check the tight of the stem packing placed on the bonnet, both in cases of low and high temperatures. The valves require periodic maintenance.



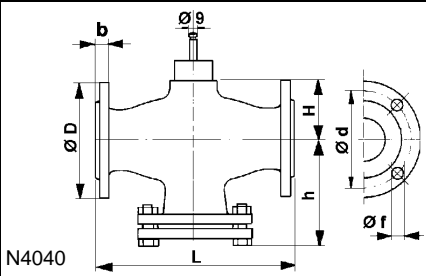
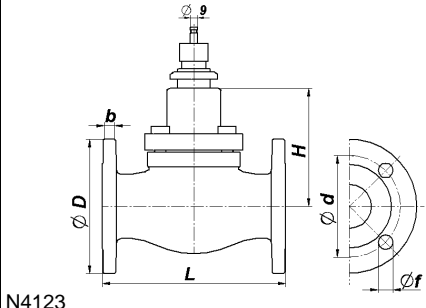
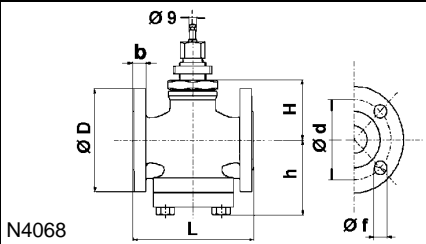
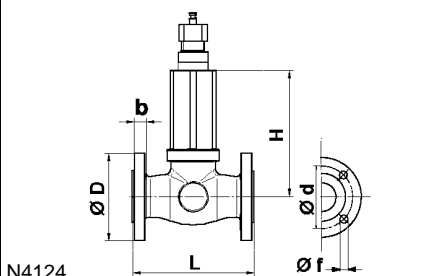
**INTEC Controls, Inc.**

9730 Distribution Ave.  
San Diego, CA 92121

Ph: (858) 578-7887  
Fx: (858) 578-4633

www.inteccontrols.com  
info@inteccontrols.com

OVERALL DIMENSIONS (mm)

Figure	Model	DN	L	H	h	Ø D	b	Ød	Øf	Holes	Weight Kg	Stroke mm	
 <p>N4040</p>	<b>VSG</b> PN16	25	160	37	106	115	16	85	14	4	5	16,5	
		40	200	51	128	150	18	110	18	4	9,6	25	
		50	230	53	145	165	20	125	18	4	13	25	
		65	290	71	175	185	20	145	18	4	18	25	
		80	310	81	187	200	22	160	18	8	28,6	45	
		100	350	93	207	220	22	180	18	8	32	45	
		125	400	115	234	250	24	210	18	8	45	45	
		150	480	133	277	285	24	240	22	8	60	45	
 <p>N4123</p>	<b>SSGA</b> PN16 <b>SSAA</b> PN40  (DN100= only for SSGA)	15	130	76	-	95	16	65	14	4	3,5	4,1	16,5
		20	150	79	-	105	16	75	14	4	4,5	5,1	16,5
		25	160	81	-	115	16	85	14	4	5,5	6,1	16,5
		32	180	129	-	140	18	100	18	4	8,7	10,1	25
		40	200	137	-	150	18	110	18	4	10,3	12,3	25
		50	230	145	-	165	20	125	18	4	13,7	17	25
		65	270	160	-	185	20	145	18	4 / 8 *	19,6	23,8	25
		80	310	176	-	200	22	160	18	8	31,7	32	45
		100	350	200	-	220	24	180	18	8	43,5	-	45
		 <p>N4068</p>	<b>VSS</b> PN25 DN25-65	25	160	83	83	115	18	85	14	4	6
32	180			123	102	140	18	100	18	4	10	25	
40	200			123	104	150	18	110	18	4	11	25	
50	230			123	110	165	20	125	18	4	16	25	
65	270			147	124	185	22	145	18	8	20	25	
 <p>N4124</p>	<b>SSAACP</b> PN40	15	130	162	-	95	16	65	14	4	6,2	16,5	
		20	150	164	-	105	18	75	14	4	8,3	16,5	
		25	160	167	-	115	18	85	14	4	8,6	16,5	
		32	180	254	-	140	18	100	18	4	14,7	25	
		40	200	262	-	150	18	110	18	4	15,4	25	
		50	230	270	-	165	20	125	18	4	25	25	
		65	270	285	-	185	22	145	18	8	29	25	
		80	310	301	-	200	24	160	18	8	38	45	

\* No. 4 holes for SSGA  
No. 8 holes for SSAA

The performances stated in this sheet can be modified without any prior notice due to design improvements.