

# SINTESI

## 6-WAY BALL VALVES

### USE

- 4-tube systems for automatic summer/winter switching
- adjusting of radiant ceilings, fan coils and chilled beams (terminal units)

### KEY FEATURES

- fast push connection with of the actuator
- Kv selection disc
- overpressure discharge system



SINTESI  
6-way

### VERSIONS AND TECHNICAL FEATURES



6-WAY

DN	Connections	PN	Kv <sub>s</sub> MAX * [m <sup>3</sup> /h]	Code
15	Rp 1/2" F	16	1,25	SC6A15F
15	G 3/4" M	16	1,25	SC6B15M
20	Rp 3/4" F	16	2,8	SC6B20F
20	G 3/4" M	16	2,8	SC6B20M

\* value with no disc added

Versions with conical or Eurocono connections available on request.

TECHNICAL FEATURES	
Fluid type	Water (max 50% glycol)
Fluid temperature	+5°C...+100°C
Rated pressure	16 bar
Δp max	2 bar
Characteristic curve	Linear, with regulation disc
Total operating angle	90°
Operating angle of the first section	0° ...32°
Angle of "neutral zone"	32° ...58°
Operating angle of the second section	58° ...90°
Leakage class EN12266-1/12 – P12	Class A

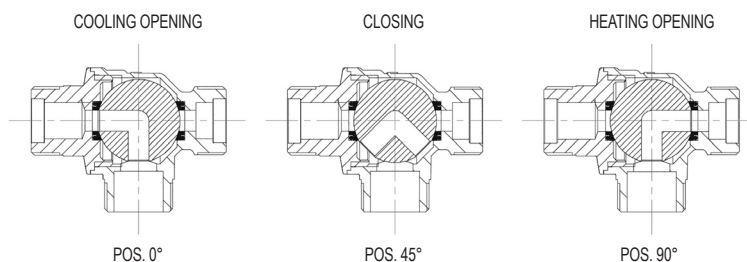
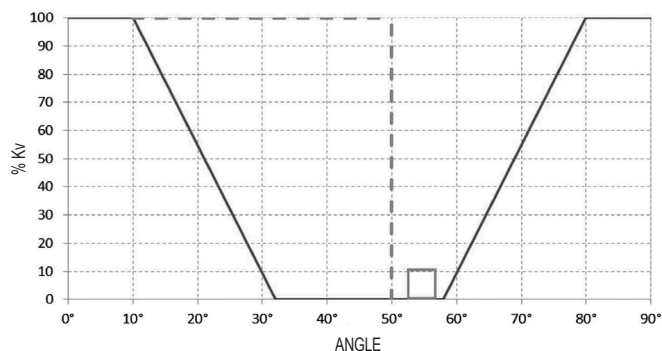


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## 6-WAY BALL VALVES

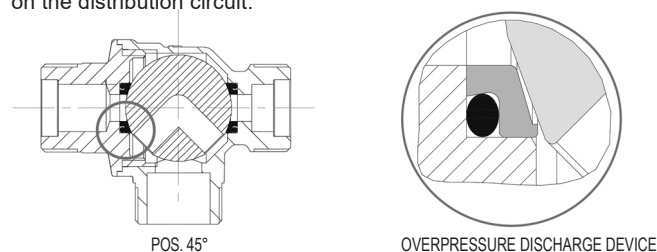
### OPERATION

The 6-way valve consists of two three-way ball valves which are moved simultaneously by the same control rod. Therefore, a single 6-way motorized valve replaces four 2-way motorized valves, simplifying the control and installation. With the 6-way valves you can therefore change the state (hot/cold) and the complete hydraulic insulation of the terminal unit, when required.

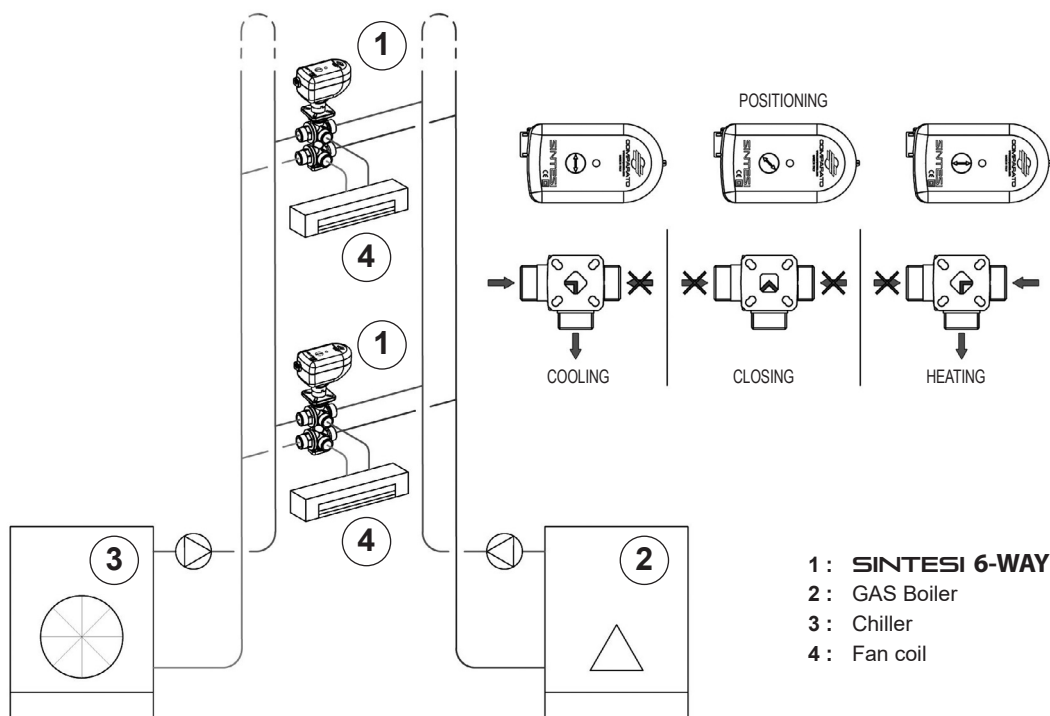


### OVERPRESSURE DISCHARGE SYSTEM

When the valve is in the closed position (position 45°) the hydraulic circuit between the terminal unit and the valve is disconnected from the expansion vessels: in this condition, the room temperature may rise and consequently also the pressure in the section may increase due to pressure in the section due to the natural expansion of the fluid. For this reason, the valve is fitted with a system that allows the overpressure to be relieved on the distribution circuit.



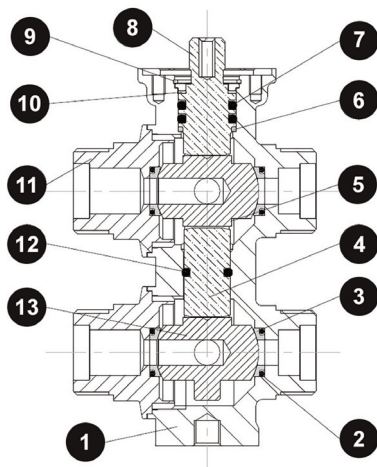
### EXAMPLE OF USE



# SINTESI

## 6-WAY BALL VALVES

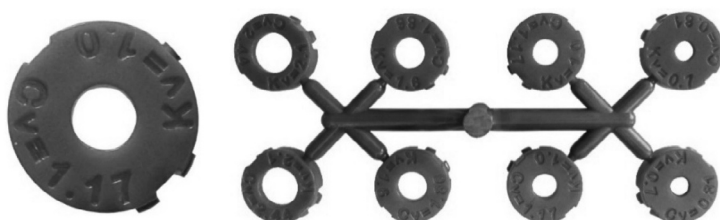
### MATERIAL USED



1	BODY	CW602N (EN 12167) CuZn36Pb2As NICKEL PLATED CW602N (EN 12167) CuZn36Pb2As
2	O-RING	EPDM - PEROX
3	SIDE SEAL	PTFE
4	ROD	CW614N (EN 12164) CuZn39Pb3 CHROMED
5	BALL	CW617N (EN 12165) CuZn40Pb2 CHROMED
6	ANTI-FRICTION RING	PTFE
7	O-RING	EPDM - PEROX
8	MAIN ROD	CW614N (EN 12164) CuZn39Pb3 CHROMED
9	SEEGER	PHOSPHOR BRONZE
10	ANTI-FRICTION RING	PTFE
11	CONNECTION	CW602N (EN 12167) CuZn36Pb2As NICKEL PLATED CW602N (EN 12167) CuZn36Pb2As
12	O-RING	EPDM - PEROX
13	BALL	CW617N (EN 12165) CuZn40Pb2 CHROMED

### KVS DISCS

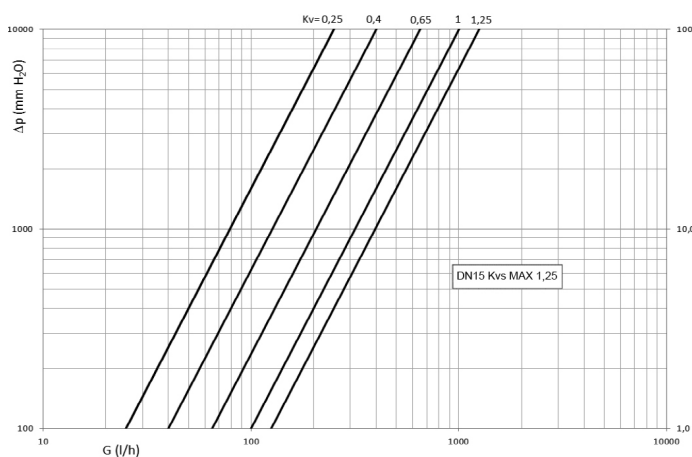
The 6-way valve is supplied in the configuration which guarantees the maximum value of Kvs, i.e. of flow rate, for each of the two sections. The flow rates for each of the two sections are actually different: the heating flow rates are normally lower than the cooling flow rates due to the different  $\Delta T$ . For this reason, each valve is supplied with a kit consisting of 4 pairs of perfectly interchangeable discs through which it is possible to manage the choice of the Kvs values. On the surface of each disc there's a permanent notice indicating the predetermined Kvs value. According to the installer's preferences (and to the designer's instructions) select the appropriate discs for the two sections. This solution provides maximum flexibility and convenience.



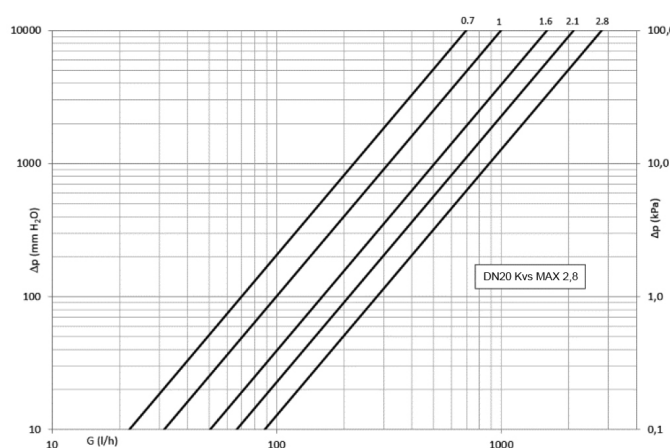
	DN 15	DN 20
KV <sub>S</sub> MAX	1,25	2,8
KV <sub>S</sub> DISCS	1,0 - 0,65 0,4 - 0,25	2,1 - 1,6 1 - 0,7

### PRESSURE DROPS

DN 15 VERSION



DN 20 VERSION



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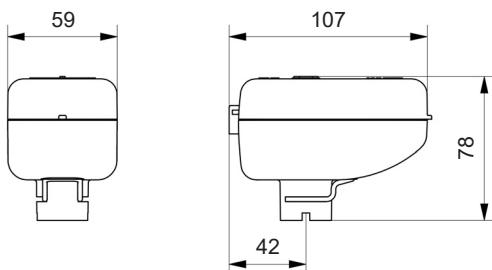
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# SINTESI

## 6-WAY BALL VALVES

### OVERALL SIZE

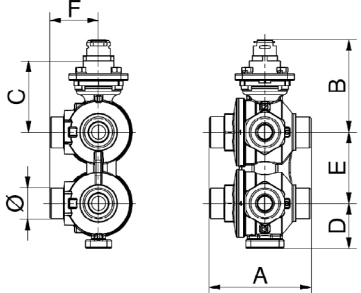
#### ACTUATOR



#### SIZES ARE VALID FOR:

- SINTESI
- SINTESI SMART
- SINTESI SMART MODBUS
- SINTESI DC

#### BALL VALVE

MODEL	DN	Ø	A	B	C	D	E	F
	15	Rp 1/2" F	74	72	55	29	50	34
	15	G 3/4" M	75	72	55	29	50	35
	20	Rp 3/4" F	95	78	60	38	60	40
	20	G 3/4" M	86	78	60	38	60	41

dimension C to be taken into account when coupling the actuator to the ball valve

### COMBINATION WITH THE SINTESI ACTUATOR

FUNCTION	2 / 3 POINT SINTESI	PROPORTIONAL SINTESI SMART	SINTESI SMART MODBUS	2 POINTS / 3 POINTS / 3 POSITIONS SINTESI DC
Switching 0° - 90°	✓		✓	✓
Switching and closing 0° - 45° - 90°		✓	✓	✓
Switching, adjustment and closing 0° - 45° - 90°		✓	✓	

### EXAMPLE OF SPECIFICATIONS

**6-WAY BRASS BALL VALVE** • CW602N UNI EN12167, PTFE seals, PN16, G3/4" M connections. Operating temperature +5°C... +100°C. Fluid type water with glycol max. 50%. Overpressure discharge system. Possibility of installation of discs for the Kvs values adjustment. Connection to the actuator with a Sintesi fast connection. Version: 6-WAY DN15 - G3/4" M - Kvs max 1.25.

Brand: **COMPARATO**

Code: **SC6B15M**

UPDATED DATA SHEETS AVAILABLE AT [www.comparato.com](http://www.comparato.com)

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